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The early postpartum period, defined as the first 12 weeks following delivery and professionally referred to as the fourth trimester, is an important transition timeframe for new mothers. It has been identified as an overlooked time period lacking sufficient healthcare support for mothers in the United States (U.S.). (Tully et al., 2017; Verbiest et al., 2018). Support for first-time mothers, in particular, is critical in the early postpartum period as they navigate many time-sensitive challenges, the outcomes of which can have a lasting impact on both maternal and infant wellbeing. For first-time mothers, social networking sites (SNSs) have been identified in peer-reviewed literature as an effective and increasingly popular way for mothers to connect virtually (Archer & Kao, 2018; Djafarova & Trofimenko, 2017; Schoppe-Sullivan et al., 2018; Price et al., 2018), yet their impact on maternal support in the fourth trimester is relatively unexplored. And, although mothers are highly active users of SNSs (Baker & Yang, 2018), research studies with samples of exclusively first-time mothers are limited.

The purpose of this study was to describe first-time mothers' experiences with online SNSs in the fourth trimester, to explore how mothers use SNSs to gain support, and to evaluate how SNSs aid or hinder the maternal role transition. A qualitative descriptive approach was used; recruitment was conducted primarily through Facebook and Instagram. Twelve first-time mothers ranging from 4 to 12 weeks postpartum participated in this study. Data collection involved individual semi-structured interviews, guided by Transition Theory (Meleis et al., 2000), on Zoom that were audio-recorded and transcribed.

Interview transcripts were completely coded and inductively analyzed using thematic analysis (Braun & Clarke, 2013). Codes were clustered according to their associated content. Ultimately four themes were developed that describe how these firsttime mothers were using SNS, what they were using it for, who they preferred as their online source, and the impact that SNSs had on them as mothers. The themes include 1: Habits of First-Time Moms Using SNSs; 2: New Purpose Online; 3: Taking it to the Moms; and 4: Impact on Motherhood.

Study findings revealed that first-time mothers are avid users of online social networking sites. Though their presence may seem invisible since they rarely post or comment on SNSs, they regularly consume incredible amounts of knowledge that is newly relevant to their maternal identity. As savvy users of online networking, they actively curated their feeds to create a passive flow of information. The easily accessible collective of fellow mothers was identified as a source of camaraderie and support in these early days of motherhood; they offered an orientation to motherhood. And while there were negative associations identified online, overall, SNSs appeared to make new motherhood easier.

Maternal child nurses have opportunities to further customize support for firsttime mothers online. Awareness of habits, trends, and the role SNSs can play in supporting mothers in the early postpartum transitional period are ways to support and empower the existing motherhood collective. Nurses can connect interested clients with relevant online groups for easily accessible support and socialization. Future opportunities exist for nurses in the provision of online education and support by carefully tailoring their online messaging in a way that would be seen as supportive of new mothers.

# JUST A CLICK AWAY: FIRST-TIME MOTHERS' INVISIBLE PRESENCE USING SOCIAL NETWORKING SITES

by

Gail M. C. Elliott

A Dissertation Submitted to the Faculty of The Graduate School at The University of North Carolina at Greensboro in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

> Greensboro 2021

> > Approved by

Committee Chair

This dissertation is dedicated to my daughters Annie Wren and Louisa Lark; being your mother will always be my greatest contribution. You have inspired me daily to do my best work; thank you for giving me space to dedicate time and energy to this study. Occasionally I would overhear you say, "Mommy's working on her Ph.D." to someone and know that you could see the effort and had accommodated the necessary adjustments to our family dynamic with positivity. I hope that, in turn, both of you are inspired in your own ways to embrace challenges for the sake of pursuing a passion and creating positive change in our world.

# APPROVAL PAGE

This dissertation, written by GAIL M. C. ELLIOTT, has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair	Susan Letvak
Committee Members	Denise Côté-Arsenault

Debra C. Wallace

Julia Mendez Smith

5/5/21 Date of Acceptance by Committee

5/5/21 Date of Final Oral Examination

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# **CHAPTER I**

### **INTRODUCTION**

Pregnancy initiates a major life change for first-time mothers that continues beyond birth and evolves as new mothers adjust to life with a newborn. The early postpartum period for new mothers is one of the most unique, challenging, and ideally joyous times in a woman's life, full of new responsibilities for both herself and her newborn (de Jesus Roldáo Caetano et al., 2018; Mercer et al., 1986). First-time mothers in the weeks following birth confront shifting priorities as they transition from childbearing to their child-rearing role (Barnes et al., 2008). Common concerns in the postpartum period include maternal physical and psychosocial issues, care of the infant, adjustments with the relationship with spouse/partner, as well as balancing new demands with pre-existing responsibilities (Fahey & Shenassa, 2013). Women may feel isolated (McVeigh, 2000), overwhelmed, and exhausted (Montgomery & Laury, 2019), and struggle to manage their new postpartum bodies (Liechty et al., 2018) as well as attend to the unique demands of their infants.

Optimal maternal functioning benefits not only mothers but also their infants and communities. It has been professionally recognized that the postpartum period, also referred to as the fourth trimester, is an overlooked period of healthcare for mothers in the U.S. (Tully et al., 2017; Verbiest et al., 2018). Unfortunately, the onus is on the mother to reach out for support rather than support being readily available and accessible in the

early postpartum period. The high prevalence of maternity blues (Rezaie-Keikhaie et al., 2020), postpartum depression (Shorey et al., 2018), and rising maternal mortality rates in the U.S. (Hoyert, 2021) are examples of outcome indicators that maternal needs are not always being met. Despite, and perhaps because of the lack of professional healthcare support, new mothers are motivated to connect with needed social support outside of the healthcare model (Amaro et al., 2019; Aston et al., 2018; Verbiest et al., 2018).

Women of childbearing age that are part of the Millennial generation and Generation Z have grown up with the Internet, and many have had a presence on social media sites for the majority of their lives. Connecting through virtual platforms and participating on social networking sites are already embedded into their social realities and offer new mothers the ability to provide peer support to each other utilizing existing online networks (Archer & Kao, 2018; Aston et al., 2018; Johnson, 2015; Price et al., 2018). New mothers may be highly motivated to actively participate in both receiving and providing peer support. Increased understanding of the experiences of new mothers' engagement with social networking sites in their quest for information is needed in order to understand some of these maternal behaviors and to augment nurse's ability to provide improved postpartum support. Listening to mothers actively processing their early postpartum experiences through social networking sites can provide realistic insights honoring their experiences to enrich understanding and further contextualize this time period in healthcare literature. This chapter provides the study background and significance, study purpose, theoretical and philosophical orientations, study definitions, and study assumptions.

#### **Background and Significance**

# **Pregnancy and Childbirth**

The monumental shifts that take place during pregnancy and birth for pregnant women are relevant for understanding the impact on many of the changes in the early postpartum period. Pregnancy is a time of rapid physiological and psychosocial change. Physiologically every body system feels the impact of the systemic changes of pregnancy. The endocrine system is responsible for the hormones that act as messengers to the individual systems triggering innumerable changes. Estrogen and progesterone levels increase to facilitate breast and uterine development and smooth muscles' relaxation, respectively, during pregnancy (Durham & Chapman, 2019). In the cardiovascular system, blood volume nearly doubles to support oxygenation needs for the fetus and to provide for expected postpartum blood loss (Durham & Chapman, 2019). Cosmetic changes occur to the integumentary system, including melasma, stretch marks, and linea nigra; gastrointestinal symptoms include nausea, constipation, and heartburn. In the respiratory system, chest anterior and posterior diameter enlarge due to the increasing size of the uterus, and mammary gland ductwork further develops and fills with colostrum in preparation for lactation. From the woman's perceptive, they may notice needing a larger bra and find it difficult to take deep breaths. While many women are excited by the visible prominence of the baby bump, weight gain and swelling in other parts of the body may not be as well received. These select examples of complex physiological modifications that serve to support a growing fetus also manifest in unique ways to the pregnant women.

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Though less visibly apparent compared to physical changes, maternal psychosocial adaptation to pregnancy is of equal importance. Mothers-to-be develop a heightened awareness during pregnancy as they accommodate changes both present and forthcoming (Rubin, 1976). This propels a process of 'turning inward' and withdrawing attention to the outside world (Deutsch, 1944). Integral to this inward development, Rubin (1976) described four independent areas of psychological pregnancy work that, to use her analogy, are similar to the weaving of a tapestry. Simultaneous attention to these four tasks is proposed motivations for maternal behavior (Rubin, 1976). Safe passage is the mother's knowledge and actions that she takes for herself and her fetus to protect and prepare for a healthy pregnancy and safe delivery (Rubin, 1976). Acceptance of the child by significant others is sought by family and friends she considers to be in her inner circle to acknowledge the realignment necessary within existing structures to accommodate the arrival of the child (Rubin, 1976). Binding-in is the process of maternal fetal attachment that is fostered throughout pregnancy, often exhibited by a deep sense of connection and knowing mothers feel when they greet their baby following delivery (Rubin, 1976). Throughout pregnancy, elevated estrogen and progesterone levels can serve to promote a sense of wellbeing and inner peace during pregnancy that are helpful to binding-in (Rubin, 1976). And this extends into the post-birth period, giving of oneself, described as the most intricate and extensive task of making personal sacrifices for the child, ensuring that this mother will approach care for the dependent child regardless of the degree of stress involved (Rubin, 1976).

Following delivery, the fourth trimester is the time during which physiological changes reverse, along with new psychosocial adaptations to support the evolving maternal role. During birth, as estrogen and progesterone levels diminish, an increase in oxytocin stimulates uterine contractions and milk letdown; after birth, the uterus contracts in response to nipple stimulation from suckling to prevent postpartum hemorrhage. Uterine involution involves healing the site of placental detachment, followed by around 2 weeks of lochia (Durham & Chapman, 2019). New mothers must manage perineal tears, urinary incontinence, lochia, and leaking breasts, in addition to pre-existing selfcare responsibilities. Reproductive hormones attributed to affective regulation, including emotional processing, arousal, cognition, and motivation (Schiller et al., 2015), are in rapid decline following delivery (Stoner et al., 2017). These hormonal fluctuations result in night sweats, emotional lability, hair loss, and many of the symptoms of baby blues and postpartum depression (Durham & Chapman, 2019). Responsibilities for newborn care require reading and responding to feeding cues and managing new skill sets, including diapering, soothing, swaddling, and bathing. Mothers who are breastfeeding their infants have lactation to manage. Issues with a proper latch and positioning of the infant during feedings present an initial hurdle. Milk production varies greatly in the first several weeks as supply is being established and the infant is gaining weight. Amidst these new responsibilities, parents report that their relationships change as mothers navigate new interactions with their partners, families, and friends (Darvill et al., 2010). Additionally, fatigue encircles this entire time frame. Residual exhaustion from the

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marathon of birth, returning home to around-the-clock infant care, and feelings of being overwhelmed result in a unique set of transitional circumstances.

# Social Media as Social Support

Support for mothers, particularly first-time mothers, is critical in the early postpartum period. Social support facilitates both physical and emotional wellbeing for mothers (Negron et al., 2013), enhances their sense of competence (Ponomartchouk & Bouchard, 2015), and is effective in both prevention and treatment of postpartum depression (PPD) (Corrigan et al., 2015; Emmanuel et al., 2012). Social support can come from myriad sources, including a partner or family members, friends, and healthcare providers (Corrigan et al., 2015). Online social media and networking have become increasingly popular with mothers and could offer a form of social support.

Social media is the umbrella term under which social networking sites are housed. Some examples include Facebook, YouTube, and Twitter. Social media is used for electronic communication within online communities to post, respond to, and share information, pictures, and videos with friends and family (Schauer, 2015). Social networking is more specific to the activity within social media; it is how individuals or businesses create and maintain relationships on social media (Schauer, 2015). For the purpose of this dissertation, social media refers to the outlet, and social networking is the exchange of human capital. While both have relevance, emphasis is on social networking sites (SNS) as they relate to social support patterns for first-time mothers.

Well-known maternal nursing theorist Ramona Mercer and colleagues defined social support as "the amount of help actually received, satisfaction with that help, and the persons (network) providing that help" (Mercer et al., 1986, p. 341). Both social media and networking sites for mothers have been identified in the literature as an effective and increasingly popular way for mothers to connect virtually (Archer & Kao, 2018; Djafarova & Trofimenko, 2017; Schoppe-Sullivan et al., 2017). Women are active users of social networking sites, and continued research is necessary to understand more about the experiences of women using social networking, specifically how and why it is used and how it facilitates or inhibits the maternal transition into motherhood.

Mothers are some of the highest online users, with three out of four mothers accessing and utilizing social media (Edison Research, 2019). There are a variety of social networks that mothers use. The most popular include Facebook 79%, Pinterest 54%, Instagram 44%, Snapchat 34%, and Twitter 25% (Edison Research, 2020). Looking specifically at mobile social networking, the breakdown varies slightly, with Facebook continuing to lead as the most popular with 169.76 million monthly users, followed by Instagram (121.23 million monthly users), Facebook messenger (106.4), and Twitter (81.47) (Statista Research Department, 2021). Young mothers in the U.S. have the highest time usage patterns on Facebook compared to other demographics (Duggan et al., 2015). The functional aspects that may appeal to mothers include information-sharing and the ability to have ongoing discussions with a wide net of individuals with first-hand experience. Women can join specific pages or groups based on common interests, and find access to resources, saved discussions about frequently asked questions, and query group members at any time of the day or night.

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#### **Issues in the Postpartum Period**

# **Postpartum Depression**

Postpartum depression (PPD) can be diagnosed anytime in the first year following birth by a health care provider for a variety of symptoms that are sustained for two weeks or longer (American Psychological Association [APA], 2019). General symptoms include anxiety, hypersomnia or insomnia, polyphagia or loss of appetite, mood swings including excessive irritability, anger and sadness, inability to concentrate, and disinterest in the newborn, family, and friends (APA, 2019). PPD and maternal stress can have a range of negative outcomes for infants, including poor bonding, growth retardation, behavioral problems, and developmental disabilities (Ha & Kim, 2013; Matthies et al., 2017; Zanardo et al., 2019). Because lower levels of social support are a known predictor of PPD and can perpetuate maternal stress, identification of a wide variety of support systems that new mothers utilize to successfully transition is necessary (Negron et al., 2013). The development of early maternal self-confidence has been found to increase long-term attachment to the infant, which is likely protective against poor health outcomes (Mercer, 1995; Shafaie et al., 2017). Opportunities to facilitate and promote social support and increase maternal self-confidence in the early postpartum period have the potential to improve outcomes for both mothers and their infants. However, the current U.S. healthcare model for early postpartum care has tremendous gaps and holds an opportunity for improved and standardized professional support (Tully et al., 2017).

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# Newborn as the Priority

During pregnancy, women receive prenatal care monthly, bi-monthly, and then weekly during the third trimester, while standard postpartum care includes one visit. It has been suggested that there is a disproportionate emphasis on prenatal care that is not appropriately mirrored in the postpartum period (Tully et al., 2017). Following discharge from the hospital or birth center after delivery, new mothers must immediately shift into around-the-clock care of their infant with limited access to professional support. The traditional appointment schedule utilized for postpartum care in the U.S. is a visit at either 2 weeks post-cesarean or 6 weeks following a vaginal delivery, although efforts are underway to provide for an earlier and more comprehensive visit around 3 weeks (American College of Obstetrics and Gynecology [ACOG], 2018). Newborns, by contrast, are seen at 3-5 days following delivery and follow the American Academy of Pediatrics (AAP) schedule of visits which includes six other well-child visits (WCV) within the first 6 months of life (AAP, 2018). Needs in the early postpartum period should be inclusive of both mothers as well as their infants. However, some mothers can often relate to the candy wrapper experience that was recently tweeted: "The baby is the candy, and the mother is the wrapper. Once the candy is out of the wrapper, the wrapper is cast aside" (Stuebe, 2019).

The entrance to motherhood includes a multitude of tender, delightful, and empowering moments as maternal competence and confidence develop. However, it has the potential to be a demoralizing experience for women as they look around and find themselves exhausted, in a constant state of flux, and without satisfactory support, but with societal expectations to provide intuitive care for their newborn and themselves. Even mothers who feel their maternal transition is positive seek other mothers to share their experience with. Often the burden of responsibility to provide care for the infant rests (primarily) on the mother (Declercq et al., 2018). Following discharge from the hospital 25 to 48 hours post-birth, mothers are expected to quickly adapt and innately provide physical and emotional support to their new baby as well as care for themselves. While this is not universally true for all mothers or cultures, as many families have ways of providing considerable support for mothers, it has been noted that new mothers can feel very isolated and unsupported during their early postpartum transition (Mulcahy et al., 2015). In addition, even with family support, there may have a knowledge gap or other limitations that prevent them from being helpful to the mother (Law et al., 2018). Primary early concerns include breastfeeding issues, sleep loss, physical exhaustion, stress, self-care deficits, and sexual function (Declercq et al., 2018); not all of those can be supported by the traditional members of the support network. In our current healthcare system, mothers may need to take personal initiative to connect with appropriate resources to receive help, placing a huge onus of responsibility on a vulnerable population.

# **Professional Support**

Professional postpartum support in the early postpartum period can come from a variety of sources or services. In the U.S., individuals usually receive care from their prenatal/intrapartal attendant, who is most commonly a certified nurse-midwife (CNM), family physician, or an Obstetrician-Gynecologist (OB-GYN). Differences in postpartum

care are provider-specific. The length of individual appointments varies widely, with CNMs spending the most time with patients (M=28.1), followed by family physicians (M=25.1) and OB-GYNs with the shortest appointments (M=17.6) (Krishnamurti et al., 2020). Some of the elements CNMs provide during postpartum care that may contrast with that of physicians can include sensitivity, encouragement, emotional support, increased time with patients, and advice and support for breastfeeding, self, and infant care (Forster et al., 2016). While the expertise and holistic care that CNMs can provide to match the most pressing early maternal needs, only 8.3% of all births in the U.S. are attended by CNMs (American College of Nurse Midwives, 2016).

Aside from the birth attendant, there are community support services that mothers can utilize. Home visits exist for select populations, mothers who meet income requirements, or reside in areas that offer universally available postpartum nurse home visiting programs, although these are rare (Dodge et al., 2014; Stetler et al., 2018). Some doulas, trained support companions, offer postpartum services, but those have associated costs and are not utilized by the majority of pregnant and postpartum women (Adams & Thomas, 2018). Lactation consultants are also available through private practice, provider offices, and hospital settings. However, limited awareness of the services, accessibility, and cost are limitations for new mothers. Services exist, but it is the provision of accessible routine care to women during this early period that is lacking.

In light of insufficient support resources from the traditional healthcare model in the early postpartum period and the risks associated with lack of social support, SNSs have the potential to fill some of the gaps of needed maternal support. SNSs provide an opportunity for virtual connection as well as receipt and provision of informational, appraisal, and emotional support. They could potentially mitigate the isolation new mothers may feel at home and provide round-the-clock peer support to provide answers to intimate questions. SNSs also serve as outlets for emotional camaraderie and function as a social distraction reported to reduce boredom from new mom isolation (Archer & Kao, 2018). SNSs fill a needed social and emotional void for postpartum information and companionship. While there are many pregnancy-related smartphone applications, commonly referred to as apps, apps customized to the postpartum period are fewer in number (Guerra-Reyes et al., 2016).

# Significance to Nursing

Nurses provide care that includes education, physical assessment, interventions, and encouragement to mothers in a variety of maternity settings. Efforts to redesign the fourth-trimester healthcare model are currently underway nationally, and this provides a great opportunity for increased professional nurses' engagement. As mothers walk through matrescence, support is essential. Learning about the experiences new mothers face through SNS surveillance increases nursing's understanding of issues that mothers are articulating, sources they are utilizing, and it may uncover opportunities for future nursing involvement. SNSs exist in the virtual landscape and are in high use; they have the potential to provide opportunities for nurses to observe, connect, support, and perhaps facilitate education for new mothers. This study provided an opportunity for first-time mothers to share their experiences with virtual social networking. Learning the needs of new mothers in this environment was an essential first step prior to developing future nursing interventions through online SNSs. A deepened awareness of how SNSs inhibit and/or facilitate maternal transition can inform nursing postpartum care and drive future nursing science efforts. The findings of this study will be used to educate both nurses and mothers. It will also inform nurses about the support needs of new mothers, as well as their ingenious ways of creating a culture of motherhood, good or bad. To help new mothers reach their own health goals, nurses have to listen to mothers, and what better way is there to start than engaging with them in a virtual landscape they actively utilize?

# **Purpose of the Study**

This study sought to describe first-time U.S. mothers' postpartum experiences with online social networking. The specific aims of the study were to (a) describe the experiences of first-time mothers actively using SNSs in the early postpartum period, (b) explore how new mothers use SNSs to gain support, and (c) examine how SNSs aid or hinder maternal transition.

# **Theoretical Framework: Meleis's Transition Theory**

Transition is a unique interval when one passes from a known state into an unknown state. This time between stable periods in life has a temporal quality to it. For new mothers, the unfamiliar territory they initially confront, including physical, psychosocial, and role changes, gradually morphs into a new reality and becomes the familiar. Anthropologist van Gennep (1960) described three stages of rites of passage, which is a helpful framework in identifying the unique components in changes to social status that can be applied to pregnancy and provides a nice segue into maternal transition. The three stages include *separation*, leaving the old way of life behind and preparing for the new that begins with the awareness of pregnancy (Jacinto & Buckey, 2013). *Limen*, or liminal, the betwixt and between stage during pregnancy, is a creative process characterized by anticipation and preparation for the new role (Côté-Arsenault et al., 2009). The third is *aggregation*, when society recognizes the mother and child as distinct, each with their own unique roles (Jacinto & Buckey, 2013). It is here that Transitions Theory (Meleis et al., 2000) can be applied to overlap with van Gennep's rites of passage final aggregation stage, as the mother continues her transitional experience as she establishes her maternal identity in the early postpartum period.

Transitions Theory (Meleis et al., 2000) provides a useful framework (Appendix A) to aid in study design and nursing implications, as well as to help define essential aspects of transition when applied to first-time mothers. It offers a structure through which to contextualize the multitude of factors that influence the transition to motherhood. Meleis et al. (2000) describe transition as a change in health status that initiates a transition process full of challenges and opportunities during which clients are in a more vulnerable state. While the entire theory has general application, the transition conditions of facilitators and inhibitors and patterns of response have particular relevance in this study and were used to develop interview questions.

# **Transition Conditions: Facilitators and Inhibitors**

The experiences of each person during a transition are varied and unique, as they are influenced by society as well as the conditions surrounding them. Meleis et al. (2000) describe personal, community, and societal conditions that work to enable or hamper healthy change (see Appendix A). Identifying facilitators and inhibitors, to the extent possible, and new moms' ability to influence their response to the transition were collected as well as demographic information during recruitment and during the interviews and were reviewed during analysis.

# **Personal Conditions**

The personal category includes meanings, cultural beliefs and attitudes, socioeconomic status (SES), preparation, and knowledge (Im, 2013; Meleis et al., 2000). According to the theory, these items impact the transition experience of the individual and have the ability to improve or hinder a transition (Meleis et al., 2000). Humans are nested within their environments that they respond to and use them to understand the world in which they live. Demographic questions were asked about educational background and any engagement with pregnancy, childbirth, and postpartum education or support services. Review and inclusion of these personal conditions in data analysis ed help elucidate transitional elements of participants. *Meanings* are of great importance in this study from philosophical, theoretical, and methodological standpoints. The meaning of motherhood likely varies from person to person, and perhaps there is variation in the meaning attached to SNS engagement as well that can be interpreted based on how new mothers make sense of the early postpartum periods through SNS.

*Cultural beliefs and attitudes* are personal as well; there could be stigmas about postpartum behaviors in some cultures that do not exist for others (Meleis et al., 2000). One's culture influences childbearing and childbearing social norms and attitudes regarding roles and behaviors such as breastfeeding. To contextualize expressions of cultural beliefs and attitudes on SNS, participants were asked to recall examples of online

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postings; during analysis, it became apparent what cultural or social attitudes exist and how they impacted the participant's experiences with online social networking.

*Preparation and knowledge* have a positive correlation; the more preparation and knowledge one has, the better the transition is, while the opposite is true—less knowledge and preparation serve to inhibit the transition (Meleis et al., 2000). Learning from the new mothers what preparations they made and information they sought through SNSs may indicate a similar pattern in facilitating or inhibiting maternal transition.

# Community Conditions

This condition is generally understood simply as community resources, more of which serve to ease the transition (Meleis, 2010; Meleis et al., 2000). Care was taken during interviews to maintain awareness of community-level conditions that included family support, information from trusted sources and role models, and if and how served to inhibit or facilitate a healthy maternal transition. This element is of great importance to this researcher, who hypothesized that the current lack of accessibility and structure of healthcare resources do not facilitate early postpartum transition, and in fact, may act as a catalyst to consciously or unconsciously seek supplemental support. Perhaps the resources do exist, but they do not meet the needs of the population; in either case, understanding the relationship of existing or nonexistent community resources was assessed in this study in conjunction with why SNSs are used in the way that they are.

# Societal Conditions

Transition can be augmented or impeded by societal conditions; thus, the socialization of healthcare providers and mothers holds particular relevance. Meleis et al.

(2000) reviewed the role of patriarchy in Korean culture related to menopause transition and marginalization for immigrants in a host country (Im, 2013). This researcher attempted to recognize and discuss relevant societal conditions that were expressed during interviews and contemplate their impact on transition. Anticipated examples include but were not limited to COVID-19, racial and gender inequities, insurance access, social stigma related to returning to work or staying at home, and body shaming, among others. Throughout the analysis process, care was taken to be aware of the existence and impact of these conditions within which postpartum women are living.

#### **Patterns of Response**

# **Process Indications of Healthy Transitions**

According to this theoretical framework, the outcome of transition is health and perceived wellbeing (Meleis & Trangenstein, 1994). Process indicators were delineated by Meleis et al. (2000) as elements that direct the transition either towards health or towards a state of increased vulnerability (Meleis, 2010). Assessment or observation of process indicators demonstrated or described by the population in this study will be beneficial, particularly as many of them are naturally demonstrated in online social networking behaviors. *Feeling connected*, whether with known personal contacts or the creation of connections with a wider virtual net of new mothers, can be a mechanism of support towards healthy transition. Mothers were asked to describe the types of connections they make using SNSs and if and how they feel connected to others. *Interacting* allows participants to receive information and feedback, engage in an ongoing dialogue, and provide peer support. A review of the participants' responses provided examples of interactions and if they were helpful or not from the mother's perspective. The degree to which they interacted and what the interactions meant to them were examined during data analysis.

*Location and being situated* highlights the impact that place and circumstances have on new mothers. New mothers located in the home setting have more limited interactions with the external world during the early postpartum period, potentially prompting a situational comparison of before and after. These comparisons allow individuals to situate themselves relative to time, space, and relationships and serve to justify or explain the tremendous personal change they experience (Meleis et al., 2000). These can be positive or negative, depending on the directional nature of the comparison. Participants were asked about habit changes with SNS access comparing before and after birth usage. Situational circumstances, such as decisions to stay at home or return to work and comparisons with other mothers in peer groups or through SNS, if discussed by participants, were noted. *Developing confidence and coping* should progressively improve throughout the transition (Meleis et al., 2000). An accumulation of knowledge and understanding based on critical points and successful use of facilitators can aid new mothers to improve their own assurance in their maternal role and care of their newborn. Ultimately, mothers identified that SNSs had the potential to be both helpful or unhelpful in the development of confidence and coping.

# **A Nursing Concern**

Transitions theory can be applied to help nurses understand the complexity of transitions and promote wellbeing through nursing therapeutics. Viewing maternal

matrescence as a developmental transition speaks to the universal nature of maternal transition, often unspoken in the broad social dialogue and left unsupported in some cultures. It is known that maternal transition occurs, but the depth of our understanding of it in the virtual world, as well as nursing's opportunity to support it, remains somewhat unclear. Nursing therapeutics informed by this theory should be based on recognition of the nature, conditions, and response patterns for new mothers in this transitional period. Maternal transition is customized by the mothers' experiences and elements unique to them, and the use of this theory in this study facilitated the distinctive experiences of the mother to be articulated and examined. For nurses, it may offer a new application of facilitators and inhibitors and offer examples of behaviors that function as process indicators towards the goal of a healthy transition, and ultimately highlight the uniqueness of this experience in healthcare literature.

# **Philosophical Underpinnings**

Qualitative research seeks to capture the richness of experiences within the spheres in which humans occupy and to share descriptions and interpretations of these experiences. Patterns, personal narratives, stories, and rich descriptions can be used inductively to articulate various subjective versions of reality. The emphasis is uniquely on meaning or understanding rather than defining a singular application of truth. The theory of knowledge, epistemology, and ontology, and the nature of being, can all be situated on a continuum between realism and relativism. For realists, reality is not dependent on human ways of knowing; there is only one identifiable answer. Qualitative research is rooted in relativist and constructivist perspectives; reality is completely

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dependent on human knowledge and their interpretation of it, allowing for multiple realities (Braun & Clarke, 2013). The opportunity to explore the evolution of truths and the context in which they take place is a unique contribution that qualitative methodologies provide. New mothers are embedded in their societies and cultures, and their understanding of the world around them can provide new and evolving versions of knowledge, making qualitative research an ideal methodology.

# Definitions

# **Operational Definitions**

*Social Networking*—Social networking is specific to the activity within social media; it is how individuals or businesses create and maintain relationships on social media in the online environment (Schauer, 2015).

*Early Postpartum Period*—According to biomedical literature, the early postpartum period is 6-8 weeks following the delivery of the neonate (Fahey & Shenassa, 2013; Romano et al., 2010). Physiologically it is the period of time during which uterine involution and other body systems return to pre-pregnancy states. From a theoretical standpoint, Mercer (2004) described role differentiation and how mothers evolve from rigid adherence to advice to one of adaptation and using maternal judgment to decide about care for their infant (Mercer, 2004). The time frame associated with this stage is 2 weeks to 4 months (Meighan, 2013). During this time, the mother is more able to adapt naturally and respond without strict adherence to a specific example. For this dissertation, the time frame of 4-12 weeks was sought. Social Support—Four dimensions of social support include emotional (encouragement and comfort), instrumental (practical assistance, time, money), informational (advice and education) (Boothe et al., 2011; Corrigan et al., 2015; Gottlieb & Bergen, 2010), and appraisal support (feedback and evaluation) (Leahy-Warren et al., 2012; Meighan, 2013) which can be provided by partners, family members, healthcare providers, and society in general (Corrigan et al., 2015).

*First-Time Mother*—An individual who birthed their first live-term infant and was actively caring for that infant who is aged 0-6 months. A variety of individuals can claim a maternal identity, and it is acknowledged that having a child equals being a mother (inclusive of those who have adopted a child) (Rubin, 1984). The purposes of this study required a narrower definition in order to account for the physiological changes that occur for mothers who physically gave birth to the neonate they are subsequently caring for. Mothers who self-identified as first-time mothers, regardless of previous experience with pregnancy loss, were included.

# Assumptions

The following assumptions were made for this study:

- The early postpartum period lasts 8-12 weeks, but the maternal transition is ongoing.
- 2. Individual perspectives are rooted in the context in which they live, and the influences of society and community are inalienable from how people experience the world.

- 3. It was assumed that mothers would be multitasking during this time, managing their own needs and that of their infants.
- Mothers would bring with them their values and beliefs that had been influenced by their gender identity, culture, religion, and socioeconomic status.
- 5. Individual interviews would allow women to express themselves and their perceptions of their experiences in an honest manner with the researcher.

#### Summary

This chapter introduced the significance of postpartum transitions that new mothers face. It reviewed why new mothers' successful adaptation is critical to caring for themselves as well as their newborn (Negron et al., 2013). The experiences of new mothers during the early stages of their transition to motherhood and the examination of those and the meaning subscribed to SNS interactions are important for nurses to realize. Mothers of childbearing age currently are avid users of social media and use SNSs as a natural extension of their physical self. SNSs provide some forms of social support for new mothers (Baker & Yang, 2018), but our understanding of the experiences of new mothers and how they make meaning of those experiences remains largely unaddressed. The use of Meleis's transitions theory (Meleis et al., 2000) was described and applied to elements of social networking that are likely inhibitors and or facilitators to maternal transition. This theory provided important structure to the methods section, specifically the interview guide, of the study and data analysis.

# **CHAPTER II**

# **INTEGRATIVE LITERATURE REVIEW**

Over the past decade, a variety of disciplines have published research that explored the growing use and influence of social media and online social networking. With continued and rapid technological advancement, new opportunities with online social media and networking continue to develop, providing new and changing platforms through which pregnant and postpartum women can connect. This literature review is concerned with exploring existing peer-reviewed scientific literature that helps contextualize the experience of online social networking for mothers and the role social support plays in the early postpartum period. Additionally, the aim of this literature review is to synthesize current scientific research related to women's postpartum adjustment to motherhood through social media and networking and to identify knowledge gaps.

Chapter II includes the literature review methodology and the review of the scientific literature on the use of social networking sites (SNS) by women in the postpartum period. This review is divided into the following sections: (a) Methods, (b) Results, (c) Discussion, (d) Knowledge Gaps, and (e) Future Research.

## Method

This integrative review utilized the framework developed by Whittemore and Knafl (2005). This review method was chosen as it provided the broadest context to

examine a diverse body of literature to help identify relevant concepts and issues related to the research questions. The ability to review both quantitative and qualitative studies provided the current state of scientific knowledge on this topic and increased understanding of the phenomena of social networking online as experienced by first-time mothers in the postpartum period. The following stages proposed by Whittemore and Knafl (2005) were utilized, including problem identification, literature search, data evaluation, data analysis, and presentation.

Whittemore and Knafl (2005) recommend using several strategies to procure literature, and the two undertaken in this literature review included computer-assisted database searches and ancestry searches. The search terms included "social media OR social network\*" AND "mother\* OR mom\* OR mum" AND "postpartum." The term "site" was then added to the social network in the search as it is most commonly referenced in the literature and was used in an effort to make this search more specific. The following databases were included: CINAHL, PubMed, Communication & Mass Media Complete, Gender Studies Database, APA PsycInfo, SocIndex, and Scopus. Keywords were searched, as well as specific subject searches for social media AND mother in CINAHL. A health librarian was consulted about keyword selection and to ensure appropriate databases were included. Manual review of abstracts was required to specifically assess for appropriateness based on inclusion criteria. Additional strategies included ancestry searching by reviewing references of selected articles to uncover other related and potentially relevant publications. Deliberate searching of journals outside of social sciences was conducted to include a broad perspective of relevant results.

Inclusion criteria were original research studies in peer-reviewed journals that examined the use of social media or social networking sites (SNS) by mothers during the first 12 months of their postpartum period. Requiring women in the postpartum time frame to be first-time mothers proved too limiting in the search results. Peer-reviewed manuscripts were in English and limited to publication between 2012 and the present to capture the most current social media usage trends. Exclusion criteria were studies that had a narrow focus; for example, mothers' usage of smartphone applications or exclusive breastfeeding and pumping questions on social media. Studies that looked only at social networking (e.g., face-to-face) as opposed to social networking online, SNS use by pregnant women or parents' use of social media were excluded. After reviewing results from initial search terms and keyword searches, the titles and abstracts were reviewed for relevance. Full-text review of the relevant articles and removal of duplicates narrowed down results. Ancestry searching yielded additional articles for a final total of 17 articles included in this literature review.

## Table 1

Set #	Search Parameters	Results	
Databases: CINAHL, APA PsycInfo, SocIndex, Gender Studies Database, Communication and Mass Media			
1	("social media OR social network*") AND ("mother* OR mom* OR	471	
1	mum") AND "postpartum"	7/1	
2	("social media OR social network* site*") AND ("mother* OR mom* OR mum") AND "postpartum"	128	
3	Limit 2012-, English language, academic journal and dissertation	88	

#### Search Strategy Report

Set #	Search Parameters	Results	
Database: PubMed			
1	"social media OR social network" AND "mother OR mom OR mum" AND "postpartum"	186	
2	"social network site"	62	
3	Limit 2012-, English language, human species	31	
Database: Scopus			
1	"social media OR social network*" AND "mother* OR mom* OR mum" AND "postpartum"	13	
2	Limit 2012-, English language	12	

### Results

Of the 17 articles that met the inclusion criteria, 12 were qualitative, and five were quantitative. Qualitative designs included narrative, grounded theory, feminist post-structuralism, and generic qualitative methodologies; all used either in-depth interviews or focus groups for data collection. All of the quantitative studies used a survey design. The studies came from a variety of publications, including qualitative health research (n=1), maternal health (n=7), communication (n=5), or nursing journals (n=4). Many of the studies were conducted internationally in Australia or New Zealand (4), Canada (two studies, three publications), or Russia (1). The remaining nine were conducted in the U.S.

The included studies varied in the sample composition. Six studies exclusively sampled first-time or new mothers. Two studies had samples of pregnant and postpartum women. The majority (n=9) sampled both primiparas and multiparas. The age of mothers sampled averaged between 29 and 31 years, with the exception of two studies focused on adolescents (13-18 years). Of the studies that exclusively sampled first-time mothers, infants were under one year of age. Studies that were not exclusive to first-time mothers

had a range of children in the home from one to five, with the majority of samples targeted to women with a recent delivery and children under 4 years of age. Appendix B contains a literature matrix with relevant details of the included studies.

#### Discussion

The following discussion of findings was organized according to the study research aims. Nine of the articles were generally focused on exploring how mothers used social media, including preferences, contextual factors, and the value they placed on it. These nine articles are reviewed first as they provide context for SNS usage and preferences and set the stage for understanding both the frequency and type of usage for mothers in the postpartum period. Next, two studies that explored the role social media use played in maternal wellbeing were reviewed. This is followed by two studies about women's perceptions of media in the postpartum period. Lastly, four studies that were specific to the experiences of mothers on social media were reviewed.

## Mothers' Use of Social Media and the Internet and Associated Preferences

The majority of the studies reviewed (n=9) were designed specifically to determine mothers' use of the Internet and their preferences related to websites and their specific features. New mothers were found to be active users of the Internet, using it to meet a variety of their needs. A qualitative study aimed at determining the website preferences of new mothers to design better health resources online used content analysis and a random sampling design (Nellsch et al., 2013). Findings from a diverse sample in age, education, ethnicity, and income were organized by categories of features and favorite sites. Favorite sites included Facebook, Google, and Yahoo. Preferred features

most highly rated included facilitation of social interactions between users (26.2%), simplicity in navigation (9.0%), and providing access to the information sought (9.0%) (Nellsch et al., 2013). The most commonly accessed websites included commercial engine sites (25.5%) and social networking sites (20.0%) (Nellsch et al., 2013). This could indicate that both information and networking are important to new mothers and that sites that enable easy interaction and content access are important. The sample in this study was exclusively new mothers who had given birth in the last ten months and found that favorite sites and features were consistent when compared by demographic characteristics with the exception of maternal age. This study was limited by its small sample and only two open-ended questions. And because one of the questions asked only about existing websites, further exploration is necessary about what features new mothers would like to have in general to support their needs for information and support online.

Walker et al. (2017) also identified similar favorite website features that included the ability to find rich and relevant information and to socialize with other mothers, as well as ease of use. Favorite websites in this study included Facebook, Babycenter, Google, Whattoexpect, and YouTube (Walker et al., 2017). Online social networking functioned as a place for an exchange of ideas, social learning, and ongoing discussions. The socialization aspect served to partially fulfill unique maternal needs that promoted wellbeing, which was described as feeling connected and supported (Walker et al., 2017). With their convenience and ease of use for new mothers, in addition to the combined ability to gather information as well as supportive interactions, study participants highly utilized social networking sites.

Mothers in the study by Walker et al. (2017) also appreciated viewing instructional videos on YouTube, often filmed by experts or parents, that were 'how to' examples for infant care. The findings revealed an increased frequency in the use of YouTube videos that correlated with lower maternal education, and more frequent searches were correlated with having fewer children (Walker et al., 2017). Mothers with less parenting experience may be intent on finding answers and can use SNSs as one information source; they may have more time with which to search online. The ease of watching a skill on video may provide the necessary information and help fill in knowledge gaps. Governmental or healthcare-supported sites were not found to be favored or common sources of information (Walker et al., 2017). Limitations included the data collection method of a postal mail survey and a low response rate of 32.8% (Walker et al., 2017). Additionally, the sample was limited to residents of a central Texas metropolitan county of which the highest responders had private insurance, were living with a partner, and had one child. Results were ethnically diverse and representative of this location but cannot be uniformly applied to the general population.

Guerra-Reyes et al. (2016) used an exploratory community-based qualitative approach to assess perceptions of low-income mother's postpartum informational needs and to describe their information-seeking behaviors specific to mobile phones. The sample consisted of 10 low-income mothers with children under 48 months. Informational needs fell into four categories: establishing breastfeeding, breastfeeding problems, general health and behavior issues, and sensitive topics participants found uncomfortable to discuss with their providers (Guerra-Reyes et al., 2016). To gather

necessary information, participants indicated that they used a combination of sources, including in-person and online, through their mobile phones (Guerra-Reyes et al., 2016). Credible sites recommended by professionals and peers were sought as participants considered them to provide trusted information (Guerra-Reyes et al., 2016). This could indicate that rather than generalized information, new mothers wanted material that was filtered and accredited from both peers and professionals. Sites that provided information specific to postpartum issues like The Leaky Boob, Baby Center, and What to Expect were described as one way of sourcing vetted information, making it more trustworthy for participants (Guerra-Reves et al., 2016). These findings may also be reflective of the effects of higher education; those with a college degree articulated the importance of using academic or professional sites at a higher frequency than those without a college degree (Guerra-Reyes et al., 2016). As with any exploratory study, generalizability is limited, and the sample was recruited from one community partner. Still, the findings contribute valuable information specific to low-income women and their mobile phone usage.

# Social Networking as a Form of Social Support

The role of social support on SNSs is emerging and is related to the evolving functionality of SNSs over time. An exploratory study by Baker and Yang (2018) specifically explored social media use and perceptions of social support through an online survey of mothers in the U.S. The authors found that SNSs and commercial search engines were the two most highly utilized online sources for new mothers (Baker & Yang, 2018). These outlets were used primarily for answering questions, connecting with others, and as a form of social support for mothers (Baker & Yang, 2018). Eighty-nine percent of the women sampled used social media outlets for questions and advice about pregnancy or parenting, and 84% of the sample identified social media as a form of social support (Baker & Yang, 2018). The findings provide helpful information and illustrate online resources mothers utilize as alternatives or supplements to traditional forms of support. Facebook was ranked the most popular site by this sample, and participants primarily accessed SNSs on their smartphones (Baker & Yang, 2018). These findings need to be contextualized as the authors did not differentiate if and how existing inperson social support overlaps with the support received from SNSs. Additionally, the survey link was shared through social networking sites over a broad geographical area, and as such, there was a risk of selection bias as the responders clearly already engaged in SNSs.

#### Value of Social Networking

Lupton (2016) aimed to investigate how mothers used digital media and what types of information they valued; nine characteristics were identified: immediate, regular, detailed, entertaining, customized, practical, professional, reassuring, and unbiased. Thirty-six women, either pregnant or having given birth in the last 3 years, participated in one of four focus groups in Australia (Lupton, 2016). This research was particularly helpful when thinking about how new mothers value SNSs in a comprehensive way. Similar to previously discussed studies, user-friendly, accessible, and multi-functional platforms that facilitated access to information and intimate social connections were important elements of social media (Lupton, 2016). For this sample, the process of information retrieval and comparison appeared to be ongoing, perhaps indicating that online access was not a one-stop shop to answer a particular question (Lupton, 2016). Lupton (2016) found that YouTube provided a user-friendly platform from which to view a plethora of videos, perhaps signifying that some information is preferred in a noninteractional form. These videos can be from peers or professionals, and participants were able to watch multiple examples of a skill or an experience to provide themselves with information and examples without having to directly ask for the information or engage with others.

Another important contribution of this research is that the participants sought out multiple sources and perspectives (Lupton, 2016). Though experts were highly valued, some participants expressed that they did not want to bother them with questions that might be considered trivial (Lupton, 2016). They appreciated the ability to share about private or sensitive topics online that were uncomfortable to discuss with family or providers (Lupton, 2016). Even access to support from family or friends did not function as a standalone and could not fulfill mothers' informational or support needs.

Though these qualitative findings provided helpful insights into this phenomenon, they are not generalizable. The sample was a metropolitan-based, highly educated group that had consistent Internet access (Lupton, 2016). Still, the rich descriptions of these characteristics provide examples of how mothers use SNSs to regain control and seek out education and support as a means of empowerment. The context in which women engage with social media can be more broadly understood as it provides a two-way form of

information exchange and social support as well as a form of entertainment. For women at home, SNSs allow them to engage in a variety of formats to fulfill a variety of needs.

## Adolescent Mothers' Use of SNSs

Two studies aimed to gather more information about the use of SNSs by adolescent mothers and how they accessed health information, but each used different methodological approaches. A qualitative study by Nolan et al. (2015) used a constructivist narrative inquiry approach interviewing (n=7) adolescent mothers in Western Australia to explore both the use and value of social networking sites. Logsdon et al. (2014) conducted a cross-sectional descriptive study with a larger sample of adolescent mothers (n=185) who completed a Pew Interview Survey about their use of social media and the Internet as a source for health information. The study conclusions provided different types of information but similarly concluded that SNSs are frequently used for health information and are valuable for more than just a source for information. Participants also reported social connectedness, a reduction in stress, and an increase in parenting confidence (Logsdon et al., 2014; Nolan et al., 2015).

As technology advances, smartphones offer increased functionality with the handheld convenience that adolescent mothers valued (Logsdon et al., 2014). The frequency with which these mothers accessed online content ranged from daily to several times a day. Their usage was frequent; the majority of adolescent mothers 13-18 years of age (50.3%) went online multiple times a day, while 23.9% accessed the internet only once a day (Logsdon et al., 2014). A social networking profile specific to SNS was had by 83.3% of these adolescent mothers. Many users accessed SNS through multiple

platforms, with the smartphone as the most common point of access. New mothers used social media as a complementary way to access information and social support. Mothers compared the information from SNSs with traditional media sources, providers, friends, and family (Logsdon et al., 2014).

The findings in this study offer important implications for healthcare providers. The internet and SNSs are highly utilized access points for both information and support for adolescents. SNSs and texts are possible points for both information dissemination and health interventions (Logsdon et al., 2014). Two groups were recruited; one was recruited from an academic medical center within 3 days of birth (n=94), the second was a community group recruited through a home visit program during the first year after birth. The samples were diverse and demographically similar in the variables measured. A strength of this study was the data collection time frame and large sample (n=185). A limitation is the cross-sectional design; although that was appropriately used to review two different circumstances the time since delivery was not reported for the community group.

The second study specific to adolescents by Nolan et al. (2015) described three fundamental domains of social support and five key themes that were uncovered in the narratives (Nolan et al., 2015). The five key themes included social connectedness, increased parenting confidence, reduced parental stress, enhanced self-disclosure, and access to information. SNSs facilitated honest communication that allowed for selfdisclosure about intimate topics, as there can be some anonymity online (Nolan et al., 2015). Some SNSs offer handles or usernames that can provide anonymity, for example,

(a) boymom2020 rather than a name. On Facebook, usernames are listed, and this was expressed as a specific concern for adolescents who felt that this personal vulnerability could have negative implications (Nolan et al., 2015). Access to information that was timely and cost-effective was described as preferred over making a phone call or appointment (Nolan et al., 2015). The ability to obtain a timely response to a need rather than wait for an appointment or call back could also make accessing information from experts challenging, according to this study (Nolan et al., 2015). Participants described how access to support that was timely and available through SNSs was helpful in dealing with an actively stressful moment and that it was "quicker, faster, and easier than traditional methods ..." (Nolan et al., 2015, p. 916). The source of information and the timeliness of the response appeared to be related to how adolescent mothers determine from whom and how to access the support they need.

The theme of social connectedness provided examples of how adolescent mothers found support and connection in a larger cyber web of individuals. This is not a unique finding in this topic; however, it was unique for this population. The participants described not only the connection to fellow mothers and family members to access information and support as valuable. They also saw SNSs as a source of social engagement that helped to fulfill their desire to remain involved and up to date (Nolan et al., 2015). The relationships they were able to form and maintain provided the ability to have fun but remain at home and mitigated the isolation some of the mothers described. Strengths of this study include the rich descriptions collected from semi-structured interviews detailing a day in the life that provided context and a deeper understanding of the ways in which SNSs are utilized. This prompts opportunities for further usage of SNSs as a form of outreach and support for healthcare professionals. A limitation was the small sample size, though this is consistent with this methodology.

### Accessed Support and Information for First-Time Mothers

One study, reported in two publications (Aston et al., 2018; Price et al., 2018), used a feminist poststructuralist methodology (FPS) to examine the institutional construction of first-time mothers' experiences in how they prioritized their postpartum needs and where they went for information. This study examined how first-time mothers in Novia Scotia both identified and prioritized their own postpartum needs in the first six months following birth. Focus groups were used to collect data in both rural and urban settings (n=19), as well as online electronic interviews (n=18). This study was not limited to online sources of information; rather, it was comprehensive in allowing participants to describe anywhere they went for information and support and their experiences with those sources. This approach is valuable as it contextualizes SNSs as one part of new mothers' search for information. The use of FPS methodology facilitated the authors' exploration related to social and institutional constructions of power and how those affect mothers' interactions with others. Discourse analysis was used and offered an in-depth look at language and meaning expressed by participants. The sample could have been enhanced by increased diversity, but seen in the context of its Canadian setting, it was appropriately representative.

Four main themes were identified by Aston et al. (2018) and Price et al. (2018), each article covering two of the themes. The first was Navigating and Negotiating Different Ways of Knowing and Needs. Aston et al. (2018) found that that women wanted and sought information from a variety of sources and voiced the conflict they experienced with competing medical and peer dialogues. Information searching remained ongoing until participants felt they had collected enough information to make their own decision. The second theme was Medium as the Message, which referred to both who provided the information as well as how this information was expressed and how it made them feel (Aston et al., 2018). Women indicated that they found a lot of support from fellow mothers and even preferred information from their peers. Providers, due to their expertise, were sought out as a source of information in addition to websites, family members, friends, particularly those with children, all of whom served as resources through which participants could collect and compare information. Many women described how information from these sources could be unsupportive, dismissive, or difficult to access, indicating that the tone of voice and hierarchy of roles impacted the message (Aston et al., 2018).

Participants expressed that many maternal needs are not commonly discussed either socially or in the healthcare setting and may have an associated stigma. Examples include postpartum depression and other maternal needs, including sexual activity, bleeding, anxiety, infant care, irritability, and the general juggling of new responsibilities. These issues are of paramount importance to mothers even if they are not part of the professional or social dialogue. Professional environments and follow-up care may not be timely enough or thorough enough to accurately assess or support women with questions

or concerns about maternal mental health, and the acknowledgment of those issues is extremely valuable to new mothers, whether in person or online (Aston et al., 2018).

The idea of maternal knowing and validation was the third theme as mothers articulated that they needed to know both that their experiences were normal as well as receive validation that what they were doing was good for their infant (Price et al., 2018). Women described being acutely aware of the conflict between parenting practices and beliefs that evolved from personal experiences with those that evolved from academic and medical discourses that were described as guidelines or standards but did not always fit their individual realties (Price et al., 2018). These mothers described navigating between intuitive and medicalized mothering; their interview excerpts demonstrated how the professional expert was socially positioned to know more than the mother herself, and eroded confidence or positioned them as "bad" mothers because they could not meet the status quo (Price et al., 2018, p. 1557). Conversely, peer commentary served to reassure mothers that difficult experiences are an important part of learning and that mothering advice from experts is not always applicable. Recognizing an internal sense of knowledge and intuition helped new mothers dismiss unhelpful stereotypes or recommendations without decreasing their maternal self-confidence (Price et al., 2018). Ultimately, the peer-to-peer interaction contributed much more than information. It provided support that reflected real mothering experiences, validated them, and offered maternal reassurance and encouragement. Participants' responses indicated that a wide variety of experiences and practices exist and that, as mothers are finding their own way, they are not doing anything 'wrong' (Price et al., 2018).

The fourth and final theme was the Emergence of Personal Knowing and Social Networks. Through the process of navigating and negotiating information, participants ultimately realized the strength of their own maternal knowledge and actively formed social networks (Price et al., 2018). These networks allowed mothers to *provide* information, support, validation, and reassurance for others (Price et al., 2018). It gave mothers a place to give back to others, a home for their experiences and perspectives. And because this study was not limited to SNS, these authors found that women preferred face-to-face interactions; however, SNSs and forums were frequently used due to their easy accessibility (Price et al., 2018).

The study participants also dialogued about the inaccuracies of the social construction of motherhood and how it was misrepresented as easy, calling it the "mothering is natural" dominant discourse (Price et al., 2018, p. 1558). Participants discussed this discourse as a setup for the invisibility of motherhood (Price et al., 2018). They expressed that mothers experience difficulties such as fatigue, juggling care responsibilities for infant, self, and home, as having a huge impact on their lives, yet the dominant social discourse articulates these as unimportant (Price et al., 2018). These mothers offered their own advice that varied from traditional assumptions and demonstrated the two-way directional flow of support back into the social network (Price et al., 2018).

These two studies contributed highly relevant findings of how first-time mothers both identify and access information and support. Because the study by Aston et al. (2018) and Price et al. (2018) examined where women went for information, it further validated the increased relevance of SNS. Women utilized formal and informal services, in-person peer networks, and social media (Price et al., 2018). Another important finding is that mothers did not want to be passive in their roles; rather, they wanted opportunities to engage, dialogue, and critically analyze information to make the best decision for their family. Professionals can use these findings to increase their sensitivity to the potential power differential that exists in patient-provider relationships and to develop an awareness of the role that hierarchy plays in the provision of information and support. SNSs are a valuable access point, but they are not without their own limitations, and as indicated by Aston et al. (2018) and Price et al. (2018), more research is needed about how these online forums are experienced by mothers. Additionally, the study findings must be viewed in the context of the Canadian setting and are not generalizable.

#### Social Media and Maternal Well-Being

The question of whether social media use impacted maternal well-being was investigated in two studies by Archer and Kao (2018) and McDaniel et al. (2012). New mothers spent a significant amount of time on the Internet searching for information and support, yet little is known if this usage positively influences maternal well-being. In one of the quantitative studies, the authors found that the average time online for mothers was 3 hours a day, and their internet usage, when compared with other activities, was second only to childcare tasks (McDaniel et al., 2012). This study, which was specific to firsttime mothers, used several measures to examine blogging and social networking to examine a potential relationship with maternal well-being (McDaniel et al., 2012). Structural equation modeling (SEM) demonstrated a positive correlation between participants' feelings of connecting to family and friends based on their frequency of blogging and that there was an indirect association between blogging and a feeling of connection and support for mothers. However, online social networking was not found to have an association with connection or social support (McDaniel et al., 2012). Lack of association between SNSs and social support was a unique finding to this study, and as with correlational research, no causation is established here. Participants shared concerns about trusting who they disclosed information to on SNS; perhaps this is due to the demographics of the sample, which was 89% White, non-Hispanic, 100% married, 78% college-educated, and 53% employed (McDaniel et al., 2012). This non-diverse sample may have had stronger support systems that they connected with via blogs, additionally during the period of time when these women were sampled, SNSs may have been seen as a less secure source of information for this discerning group of new mothers. Another limitation was that the included measures specifically assessed reasons for blogging but not reasons for social networking online; these were lumped in with a measure of media use and daily life.

The second study that addressed maternal well-being was a qualitative study based in Western Australia of mothers of children from birth to 4 years of age (Archer & Kao, 2018). Ten focus groups (total number of participants was not provided) revealed that Facebook was the primary and sometimes only social media platform used by the sample. The key motivations for Facebook use described in this study included escape from boredom, contact with the outside world, missing out if not on Facebook, news and information, following an organization or influencer, and support and connection (Archer

& Kao, 2018). Women expressed that Facebook served as an outlet for connection that helped reduce the isolation they felt and that it was a network that provided emotional support and information (Archer & Kao, 2018). The importance of a closed group space that allowed mothers to connect privately with other similarly-minded individuals offered a unique support network. The use of Facebook by new mothers served multiple uses. The two ideas of fear of missing out (FOMO) and distraction may appear trivial, yet that serves to fulfill a form of connection and awareness when they cannot physically participate or engage within their communities.

Archer and Kao (2018) discussed several downsides that social media could have on mothers, which was a unique contribution to this literature review, including that Facebook had the tendency to be addictive in how it increasingly took time away from other activities. Privacy within the social networking site was raised as a concern. Users of SNSs are vulnerable to commercial data harvesting as well as a loss of control if they posted information or photos that could then be taken and used out of context (Archer & Kao, 2018). Another concern was the superficial nature of some interactions that mothers noted could potentially lead to depression or anxiety (Archer & Kao, 2018). Appearances can be deceiving, and while the desire for information and human connection exists, there are other factors at play. Oversharing and opinionated posts on SNSs are common and were described as downsides to SNS use (Archer & Kao, 2018). Additionally, competition and artificial inflation of self and socially promoted maternal roles were expressed by mothers in this study (Archer & Kao, 2018).

## Perceptions and Use of Media

Only two studies specifically aimed to understand women's perceptions of media related to health. They had slightly different research aims, and both were from Communication publications. The article by Liechty et al. (2018) explored women's perceptions of media and body image during the postpartum period using Friedrickson's objectification theory as the theoretical framework. This qualitative study employed semi-structured in-depth interviews with pregnant (n=24) and postpartum women (n=26). Four themes emerged that included questions of realism, perceived effect on body image, desired media changes, and the unique role of social media (Liechty et al., 2018). According to findings by Liechty et al. (2018), 88% of the sample found media portrayals in the postpartum period unrealistic. The awareness of misrepresentations, judgmental attitudes, and stereotypes is an acknowledged element of SNSs and was recognized by the majority of the participants.

Importantly, these participants expressed that they wanted a visual connection with realistic expressions of the postpartum experience as part of their desired media changes (Liechty et al., 2018). Mothers expressed the desire to "see their own experiences or experience they could relate to represented in media" (Liechty et al., 2018, p. 856). The participants' feelings about social media were mixed; 41% expressed a negative influence, 26% expressed and positive influence, and 33% had mixed feelings (Liechty et al., 2018). Those who indicated a positive influence described it as relatable, realistic, and honest (Liechty et al., 2018). This could indicate that social media has the capability of providing both good and bad influences in its current form and that mothers indicated that misleading expressions were deterrents for both their usage of SNSs and had a negative impact on their maternal transition. This study's contribution was unique information about perceptions of media in general, and further research about perceptions of specific SNSs would be a natural next step. The sample itself was 80% Caucasian; the lack of diversity is a limitation.

The second study, by Sundstrom (2016), aimed to "understand women's perceptions and use of new media, mass media, and interpersonal communication channels in relation to their highest health priority" (p. 93). In this qualitative study, 44 biological mothers of newborns were interviewed. Interviews were held either in the hospital or after discharge over the telephone (Sundstrom, 2016). The author clearly described the inductive method of analysis using grounded theory and the constantcomparative method utilized throughout data collection and analysis, which was a strength of this study. Results included six themes creatively titled, Resisting mass media, Repurposing social networks, There's an app for that!, Text and e-mail, Google it up, and Playing expert (Sundstrom, 2016). Similar to other studies, Facebook again was the most used SNS of the study participants. Women described being inundated with information from various media outlets, including television, books, radio, magazines, and the Internet (Sundstrom, 2016). These sources were described as influential with regards to the societal expectations that are embedded in the online representations of pregnancy and motherhood (Sundstrom, 2016).

The importance of the source of information proved critical for these mothers both in where and from whom they accessed information online because that had an

impact on the value and trust placed on it. Participants indicated that they were more likely to join private mom groups or groups hosted and facilitated by nationally known organizations when they were recommended by friends (Sundstrom, 2016). They also explained that their need to "cross check" and "weed through" information required multiple communication channels (Sundstrom, 2016, p. 98). These new mothers worked hard to find the information they needed but also used SNSs to expose themselves to ideas or issues unbeknownst to them and to stay aware. This idea of customizing communication networks was well described and an important finding of this study. This study was conducted in the very early postpartum period; many of the mothers were interviewed in the hospital setting. As such, the participants referred to searches, networks, and application usage during pregnancy rather than the postpartum period because they had not yet utilized online social media for postpartum and newborn needs. The blend of telephone and in-person interviews, while pragmatic, is a limitation.

#### **Experiences with Online SNSs**

The final four studies discussed in this section all aimed to explore new mothers' experiences on SNSs through the use of qualitative methodologies. The purpose of the study by Teaford et al. (2019) was to explore women's experiences with an online forum during the postpartum period. All participants (n=393) were members of Babycenter.com and were in their first 6 months post-birth (Teaford et al., 2019). This particular article presented only the responses to open-ended questions that were included in a much larger study about postpartum depression, hence the large sample size. The sample was exclusive to first-time mothers, the majority of which were Caucasian, partnered, and

insured with an average age of 29.2 years (Teaford et al., 2019). These non-diverse demographic results are clearly a limitation and must be taken into consideration when reviewing the results. The key qualitative findings include Social Support, Anonymity, In-groups, Drama, and Entertainment/Pastime (Teaford et al., 2019). These findings provide a broad description of general online experiences for mothers using one specific baby-focused platform.

Finding support from other mothers served to validate the participants' personal experiences (Teaford et al., 2019). This finding is not unique to this study but consistent with the literature. Reassurances from peers countered societal messaging and norms and provided an outlet for frustration as well as a way to receive advice and ongoing support (Teaford et al., 2019). The ability to find a safe space with access at any time and with anonymity, as Babycenter uses screen names, can provide a buffer to the larger social messaging women experience and helped realign them to a common reality that normalized their experiences.

Another theme, Drama, described as bullying, catfighting, aggressive online comments or interaction, and debate, was a noted downside that was reported as common in this particular online forum (Teaford et al., 2019). Participants reported online threads that developed into an atmosphere of harassment, leaving some participants to wonder if those engaging in this mean behavior enjoyed it. Interestingly, some participants found that an appropriate reaction to the drama by SNS users actually served to create a sense of camaraderie when it was responded to and handled appropriately in the online forum (Teaford et al., 2019). Drama was also clearly described by the authors in relation to another theme, Entertainment/Pastime, in that watching the dramatic behaviors was described by some as a welcome distraction and entertainment that served to mitigate the boredom and isolation postpartum (Teaford et al., 2019).

In the second study, researchers Mulcahy et al. (2015) investigated the roles of online social networking as they related to maternal social capital development and the experiences of social isolation among mothers utilizing one specific online social networking site called Momstown (MT). These authors used purposive sampling and recruited mothers (*n*=22) who were members of MT (Mulcahy et al., 2015). They were all interviewed in their homes, either face-to-face or virtually. The constant comparative method was used for data analysis and was well described. Though the authors did not intend to study postpartum depression (PPD) specifically, the majority of the participants reported experiences with PPD, whether formally diagnosed or not (Mulcahy et al., 2015). The sample was generally described, but no table was provided with specific demographic information; however, the majority appeared to be highly educated, Canadian, married, and with stable income (Mulcahy et al., 2015). The findings were helpful and described using rich descriptions and participant quotes to illustrate themes. These authors indicated that online social networks provide the opportunity for mothers to actively create a community to meet their evolving needs.

The most unique finding in this study was the description by 21 of the 22 participants that the experience of transition to motherhood was both isolating and overwhelming (Mulcahy et al., 2015). This was well described in the first theme, "I'm So Alone," and the elements that exacerbated these feelings during maternal transition.

However, as described in the following two themes, "You're Not Alone" and "We're Gonna Get Through This," the participants expressed the psychological benefits of online company and the camaraderie and sense of community they found in the online social network (Mulcahy et al., 2015). They respected and craved hearing from someone who had gone through what they were going through and the validation of parenting experiences (Mulcahy et al., 2015). As such, the peer provision of reassurance helped to mitigate the isolation women expressed feeling (Mulcahy et al., 2015). Group membership was described as a form of community that provided access to other mothers with similar challenges and needs (Mulcahy et al., 2015). In this study's setting, the use of an SNS facilitated the creation of maternal social support networks that the women themselves built and maintained, allowing them to effectively navigate and problem solve their maternal experiences.

The third study by Alianmoghaddam et al. (2019) was conducted in New Zealand, in which the researchers interviewed (*n*=30) mothers who were planning to exclusively breastfeed (EBF) for 6 months. The specific aim of this paper was to explore the influence and views of social media on exclusive breastfeeding practice (Alianmoghaddam et al., 2019). The implicit limitation here is that the participants selfidentified as pro-breastfeeding, and so the findings of this study must be taken into consideration of the sample characteristics in mind. Several themes emerged from the data, including mothers' need for reliable infant feeding information. The women in this study acknowledged that the benefit of online access, whether through Google searching or SNSs, was the ability to access high-quality and reliable information immediately (Alianmoghaddam et al., 2019). Of note, the sample in this study was highly educated, and the majority (25 out of 30 participants) were members of Generation Y (born 1980-1990). They described themselves as able to discern quality online sources and recognized both the wealth of online information as well as 'crazy' things on the internet that can be misleading (Alianmoghaddam et al., 2019, p. 151). The type of information sought was often of a time-sensitive nature, and SNSs allowed access to readily available groups of peers who could respond immediately. Advice for a clogged milk duct, feelings of isolation, or newborn care could be quickly posted and addressed. Some women utilized existing threads about common topics to quickly get information, demonstrating that even if women are not actively posting, they are using the SNSs' exchange of information to inform decisions (Alianmoghaddam et al., 2019).

The second theme discussed in this article was how Smartphone apps could be a good option for promoting breastfeeding. Alianmoghaddam et al. (2019) found that the majority of their sample utilized the Internet, usually on a smartphone, as a way to provide timely information specific to breastfeeding, which allowed them to independently increase their health literacy and support their own self-care (Alianmoghaddam et al., 2019). These mothers described themselves as aware of the potential of finding misinformation on the internet. Many users were wary of this and acknowledged that one could become inundated with information and that recognizing that just because one can find anything at any time does not mean that it is helpful information (Alianmoghaddam et al., 2019). Personal, unhelpful outbursts by individual posters were not uncommon, and reactions to postings may not always be supportive to

those seeking the information (Alianmoghaddam et al., 2019). Despite stigmas related to exclusive breastfeeding and personal successes or failures, the access to hope and reassurance despite geographical distances demonstrated how weak ties, the third theme, can be a source of strength of SNS.

The final study, by Djafarova and Trofimenko (2017), described how SNSs were particularly concerning due to the potential for a negative influence on women's attitudes and expectations for themselves during the transition. These researchers explored the social media engagement of mothers in Russia and the impact their experiences with Facebook and Instagram had on their self-esteem. This was the only study that conducted a content analysis of popular Instagram profiles (n=23) and combined that qualitative content analysis with in-depth interviews of 12 mothers who were described as socially active online with both Instagram and Facebook (Djafarova & Trofimenko, 2017). Sample descriptions of the Instagram profiles included their username, number of followers at two different points in time, number of posts, number and gender of children, most liked post, video, and highest number of comments. Descriptions of respondents included maternal age (range of 23-36 years), number of children (range of 1-3), children's ages, occupation, frequency of SNS usage (all but one participant indicated daily), and the SNS used (described as only Facebook and Instagram). Some examples of what the authors analyzed included: the number of followers, nature of images as well as content posted, source of their expertise, the highest-ranked images and videos their followers liked, and the commentary to their postings (Djafarova & Trofimenko, 2017). Their findings were organized into four categories based on patterns, self-presentation

online, the effect of online self-presentation on maternal self-esteem and Facebook vs. Instagram use (Djafarova & Trofimenko, 2017).

While assurance was sought through self-presentation on SNS, participant commentaries in this study revealed that what was posted (images and comments) were not true reflections of their reality (Djafarova & Trofimenko, 2017). Posting positive images aligned with the pressure participants felt they needed to demonstrate their competency. Participants explained that while they received positive attention for these postings, it did not really match their true needs. However, participants expressed an increase in their self-esteem based on the number of followers and the positive response they received to those posts (Djafarova & Trofimenko, 2017). This study helped reveal a known but little researched area of human behavior associated with SNS usage. Selfesteem is important; however, further research could investigate the implications for mothers who describe needing to falsely identify and promote an untrue reality to improve their self-esteem.

Social networking sites also allow mothers to present themselves as they desire to be perceived, not necessarily as they are. As such, judgmental responses to questions and posts or postings of unrealistic and idealistic images can be dismissive of the reality that new mothers are experiencing (Djafarova & Trofimenko, 2017). Criticism was described as intolerable on social media and resulted in users blocking individuals who perpetuate these untoward behaviors (Djafarova & Trofimenko, 2017). There are also commercial implications since social media influencers can promote products and companies and receive compensation. In this study, *influencing* was observed to be aggressive and

potentially destructive in users' attempts to source accurate information and opinions (Djafarova & Trofimenko, 2017). Lastly, Instagram, compared to Facebook, was described as a platform that did not allow in-depth discussion of topics but was used for peer acknowledgment and self-presentation on social media (Djafarova & Trofimenko, 2017). This study offered a variety of implications for healthcare providers, including how different platforms can be and are used by the sample in this study. Further research is necessary on the evolving platforms, usage trends, and behavior dynamics of mothers on these platforms.

## Synthesis

These articles, reviewed collectively, offer a general understanding of online site attributes that are important to mothers, types of support offered on SNSs, and maternal behaviors in the online environment. SNSs and commercial search engine sites are the two most highly utilized online sources for new mothers. These outlets are used primarily for answering questions, connecting with others, and as a form of social support for mothers (Baker & Yang, 2018; Nellsch et al., 2013). Specific to commercial search engines, variations in mothers' use of searching patterns existed between the adolescent and the adult populations. Adolescents searched for information about birth control, sexually transmitted infections, HIV (Logsdon et al., 2014), and parenting advice (Nolan et al., 2015), compared to adults whose searches focused on the care of the new mother or baby as demonstrated by these popular search topics for childbirth, newborn care, newborn growth and development, and breastfeeding (Baker & Yang, 2018; Walker et al., 2017). The variations in types of information sought online by age range may indicate

that there are developmental variations as adolescent mothers as a group could have different priorities than mothers who on average ranged in age from 28 to 30 in several of the studies (Baker & Yang, 2018; Nellsch et al., 2013; Walker et al., 2017).

Mothers preferred sites or searches online generally centered around themes of motherhood, health, and parenting. Favorite websites included Babycenter, Google, Whattoexpect, and YouTube (Walker et al., 2017), Google (Alianmoghaddam et al., 2019), Facebook (Baker & Yang, 2018), Facebook (Archer & Kao, 2018), Facebook and Instagram (Djafarova & Trofimenko, 2017), and Facebook, Google, and Yahoo (Nellsch et al., 2013). In the studies that described Facebook, the social media site was utilized as a comprehensive way to gather both information and support and allowed for mothers to either actively engage in chats and posting or to read the information without interacting. Sites such as Babycenter and Whattoexpect, which are specific to infants, moms, and parenting, were popular as they were described as reliable ways to access expert and trusted content on the topics important to mothers (Alianmoghaddam et al., 2019; Nolan et al., 2015). Instagram was described as a platform that did not allow in-depth discussion of topics but was used for peer acknowledgment and self-presentation on social media (Djafarova & Trofimenko, 2017).

New mothers used social media as a complementary way to access information and support; the information they found was then compared with traditional media sources, providers, friends, and family (Baker & Yang, 2018; Logsdon et al., 2014). Mothers are frequently searching through multiple sources online to gather various perspectives and opinions to augment their understanding, perhaps to improve their

autonomy, and to aid in their decision-making. Access to anonymous, 24-hour peer support was of high value (Lupton, 2016) and was often supplemental to the personal support they had received (McDaniel et al., 2012). And while the search for credible support and information was ongoing (Aston et al., 2018), it offered a diversion or distraction to some (Archer & Kao, 2018; Teaford et al., 2019) and helped reduce the isolation mothers expressed feeling being home alone with a newborn (Mulcahy et al., 2015).

Credible sites recommended by professionals and peers were sought because a participant considered them to provide trusted information (Guerra-Reves et al., 2016). This could indicate that rather than generalized information, new mothers wanted material that was filtered and accredited. Sites that provide information specific to postpartum issues like the Leaky Boob, Baby Center, and What to Expect were one way of sourcing vetted information (Alianmoghaddam et al., 2019; Guerra-Reves et al., 2016). For mothers who also want to receive and give support in the online environment, peer engagement and support were preferred (Aston et al., 2018). High value was placed on viewing multiple peer perspectives, as well as the anonymity for topics not routinely discussed in social spheres (Lupton, 2016). These behaviors were described by one study as beneficial in healing to increase maternal self-confidence both in the short and long term as mothers heard real accounts and varied perspectives from their peers (Price et al., 2018). The camaraderie formed was beneficial both to new and experienced mothers who began participating in a more supportive role rather than information seekers (Price et al., 2018). In an online environment where credibility is an issue and inaccurate media

portrayals perpetuate maternal stereotypes (Liechty et al., 2018), having access to a trusted environment of peers readily available proved extremely valuable (Sundstrom, 2016).

## **Knowledge Gaps and Future Research**

This review of the current literature suggests that there is a continued need to understand maternal experiences of SNSs in the U.S. The majority of the studies reviewed here provide information about usage, most popular sites, and site features; in essence, they give us answers to the basic habits and patterns. Fewer studies specifically addressed mothers' experiences, and even fewer were specific to first-time mothers' experiences. The majority of participants in the samples in these studies tended to be Caucasian, educated, partnered, insured, and between 28-30 years of age, with the exception of the two adolescent studies. While these samples were often reflective of the communities in which the research took place, continued pursuit of increased sample diversity is important to provide a more diverse and well-rounded understanding of additional maternal experiences with SNSs. There are huge variations in national policies, cultural influences, social norms, healthcare and insurance provision, and access that cannot be separated from the experiences women in the samples from New Zealand, Australia, Canada, and Russia described.

While some samples were specific to postpartum women, several studies sampled both pregnant women and women in the postpartum period. The postpartum period utilized ranged from birth to 12 months following delivery. Participant samples varied from being specific to first-time mothers to mothers of several children with varying age

ranges. There remains a limited understanding of how first-time mothers experience and respond to experiences online that facilitate or impede their transition to motherhood during the initial postpartum period. Emphasis on first-time mothers and their contextual accounts and perspectives of their experiences as they interact with and interpret social networking will add needed knowledge to this topic.

There is still a knowledge gap as to how and why women during the postpartum period in different communities use and experience online social media and networking sites. Much of the literature reviewed in this chapter is either descriptive or focused on initial interventions to assess the feasibility, accessibility, and relevance of social media and social networking use for mothers. The findings indicated there was incredible potential for both mothers and healthcare professionals, including nurses, to use SNSs. We know that SNSs are highly utilized by mothers (based on the sample characteristics) and that it offers a variety of types of support. It should also be assumed that experiences continue to evolve with the rapidly changing digital world in which we function. Continued research is merited as the popularity and functionality of SNSs change as new platforms are developed because mothers' experiences will change.

While four studies did offer research on maternal experiences, they were of a narrower focus limited by platform or context. The studies were based specifically on experiences with Instagram, Babycenter, or Momtown (Djafarova & Trofimenko, 2017; Mulcahy et al., 2015; Teaford et al., 2019) or with the topic of exclusive breastfeeding (Alianmoghaddam et al., 2019). Specific experiences with these sites provided important information, and the natural next step would be to review the experiences with social

networking sites in general. It is clear that mothers are frequent users of SNSs and that it provides a variety of supports, including informational, emotional, and appraisal. Yet, SNSs continue to evolve, and it is essential that ongoing research asks new mothers to describe experiences in general to allow users to inform us of what SNSs are used, for what purpose, and why, and the experience that they have with them. As SNSs change, experiences are likely to change as well, and sustained attention to these evolutions will keep mothers' voices as a part of the dialogue to inform nursing research and care.

### Summary

This chapter reviewed the relevant peer-reviewed literature related to the usage of social media and social networking sites (SNS) by mothers during the first 12 months of their postpartum period. This integrative review utilized the framework of Whittemore and Knafl (2005) and found 17 studies that met the inclusion criteria; 12 were qualitative, and five were quantitative. Publications included but were not limited to nursing journals and offered a broad perspective in the social science literature. The studies were categorized by similar study aims and then reviewed individually to discuss contributions to the topic and limitations. Synthesis was provided on how these studies enhance our understanding of the usage of SNSs by mothers in the past decade and encourage further research as platforms and user habits change. This literature review is exclusive to mothers, but first-time mother needs in the early postpartum period are not substantially differentiated. First-time mothers are experiencing a transition to motherhood that is more dramatic because it is completely new to them. Continued descriptive research from the perspectives of new mothers is needed to fill this knowledge gap.

# **CHAPTER III**

# **METHODS**

First-time mothers' social media behaviors offer a unique perspective about the increasingly common way mothers are engaging with each other online to extend and receive customized maternal support. As new mothers, they lack the experience with childbearing and childrearing that multiparous women have. Personal experiences during postpartum may motivate them to find answers and connections through social networking sites (SNS) to support their needs. For first-time mothers, virtual social networking provides a very unique avenue to connect mothers to other mothers, is considered one of the most valuable sources of expert information, and that increased mothers' sense of self-efficacy through problem-solving on SNSs (Price et al., 2018). A deeper understanding of the access and usage habits, motivators of usage, experiences, effects on maternal transition, and elements of social networking for first-time mothers will offer insights for maternal child healthcare professionals. Research studies using samples of exclusively first-time mothers are limited in the literature; explicit focus on this population is merited. Online SNSs continue to change and evolve, therefore continued attention to how mothers describe their online experiences and how it affects their maternal transition is warranted. Healthcare professionals should be aware of the most recent access trends, frequented sites, and online experiences and how they affect early maternal transition.

This qualitative study grew out of the researcher's interest in maternal transition, experiences working with new mothers in the hospital and community setting, and from the gaps identified in the literature review. This chapter includes the research questions, study design and procedures, and ethical concerns.

## **Research Questions**

The following questions were used to guide the study: (a) What are the experiences of first-time mothers using online social networking sites in the (early) postpartum period?; (b) How do new mothers use SNSs to gain support?; and (c) How do online social networking sites aid or hinder maternal role transition?

## Design

A qualitative descriptive approach was used for data collection and analysis as described by Sandelowski (2000, 2010). This design has been described as "... appropriate for research questions discovering the who, what, and where of events or experiences and gaining insights from informants regarding a poorly understood phenomenon" (Kim et al., 2017, pp. 23–24). It honors the subjectiveness of individual experiences and offers a straightforward yet rich description of experiences with data near data interpretations (Sandelowski, 2000, 2010). Qualitative descriptive research is well suited to best answer the research questions as it offers a flexible and broad approach that can provide candid descriptions of both perceptions and experiences and ideally serve as a precursor to future research (Doyle et al., 2020; Sandelowski, 2010).

# The Need for a Qualitative Approach

There are limitations of empiricism-based research in capturing and articulating the human perspective and individual experience. The role that online social networking plays in the transition of first-time mothers and the type of social support it provides is something that needs to be articulated by the individuals experiencing it. This qualitative descriptive research study, informed by the Transitions Theory framework, sought to improve nursing's understanding of the phenomenon of SNS usage in the early postpartum period from the perspective of the mothers actively experiencing it.

In light of the blend of quantitative and qualitative research that has been generated around the general topic, it was appropriate to continue with descriptive research to elicit commentary specifically from new mothers and their current SNS habits and their implications on their maternal transition. This helps illuminate some of the reasons that research has expressed both positive and negative associations and provides information about the social context in which the participants function. Continued research is necessary to understand current sites that are used and if and how they provide support. According to Creswell and Creswell (2018), qualitative research is most useful when important or additional variables need to be assessed. Findings could motivate further research to consider nursing interventions within social networking contexts to support the process of becoming a first-time mother.

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#### Sample, Sampling Method, and Data Collection

# Sample

Convenience sampling augmented by snowball sampling was used to invite available and eligible individuals for this study and provided relevant insight into the topic of interest (Polit & Beck, 2017). Initial interviewees were asked to refer study participants from their personal or online networks to enhance finding additional eligible and interested participants (Polit & Beck, 2017). Eligibility criteria included the following: participants who are (a) 18 years of age or older, (b) able to speak and understand English, (c) are 2 to 12 weeks post-birth, (d) consider themselves a first-time mother, and (e) consider themselves active users of social networking sites with active accounts including but not limited to the following sites: Facebook, Instagram, and Twitter.

This time frame was selected to capture a range of patterns and functions in the early postpartum period and to avoid a highly transitional time during which the baby blues is likely in the first 2 weeks (Rezaie-Keikhaie et al., 2020). First-time mothers report a heightened contrast to their previous role identities; as such, their unique experiences were sought out exclusively for this study (Katz-Wise et al., 2010; Laney et al., 2015; Smith, 1994). This time frame is also theoretically supported by Mercer's third stage of Becoming a Mother, during which the mother is approaching the third phase called normalization. During normalization, the new mother is working on role differentiation and demonstrating an evolution from rigid adherence to advice to one of adaptation and using maternal judgment to decide about care for her infant (Mercer,

2004). The time frame associated with this stage is 2 weeks to 4 months (Meighan, 2013). Additional inclusion criteria allowed women to participate with a previous loss, as their transitions are equally relevant as the emphasis is on the early postpartum experiences online as a first-time mother and not exclusive to maternal identity.

Exclusion criteria were selected based on factors that could be reflective of more unique and specific experiences and detract from the general exploration of the topic. These included mothers of adopted infants, preterm deliveries of 37 weeks' gestation or younger, mothers who did not give birth to the infants they were caring for, and mothers who were actively mothering other children in the home (non-biological), history of neonatal admission to NICU for > 24 hours. These excluded types of mothering experiences are specifically selected because it is demonstrated in the literature that adoption, maternal experience, and NICU hospitalization or preterm delivery offer highly unique parenting experiences. While they are valuable maternal experiences, they conflict with the goal to gather general experiences of term first-time mothers and would detract from the study's purpose.

The majority of qualitative studies have utilized focus groups with participant numbers ranging from 7-19 (Aston et al., 2018; Price et al., 2018). A range of 7-12 interviews is consistent with this method and current literature; however, the gold standard in qualitative research is ongoing data collection until data saturation has been achieved and was done in this study (Braun & Clarke, 2013; Doyle et al., 2020). For this study, 12 participants were interviewed to reach data saturation.

# Sampling Method

Recruitment was done through online social networking postings on Facebook, Instagram, and Twitter. Electronic flyers (Appendix C) with a QR code were posted on the aforementioned social networking sites, specifically utilizing regional Facebook mothering groups, including Asheville Mamas, South Asheville Mamas, Hendersonville Mamas, Asheville Area Mamas, and AVL Mama Connect. Even though the primary posting was placed in geographically-centered FB Groups and on the primary investigator's (PI) IG and Twitter handle, online sharing offered the potential for eligible participants to have access to the shared survey link. Due to these prolific sharing patterns on social media, snowballing technique was anticipated to be widespread through social networking groups on FB and Instagram beyond the network of the PI.

**Diversity.** Efforts were made to increase sample diversity to compensate for the limitations of recruitment through personal social networking profiles by reaching out to several local organizations that provide community-based care in the early postpartum period to a diverse range of patients. Sistas Caring 4 Sistas is a community-based doula program that was founded by women of color for women of color. This organization operates in partnership with Mountain Area Health Education Center (MAHEC), which offers OBGYN services to a diverse population in Western North Carolina. Personal contact was developed with one of the primary doulas, and recruitment materials were shared at one of their regular meetings for approval. Printed copies of the flyer were provided because doulas requested hard copies to share at home visits. Additional efforts were made to contact four of the primary doula organizations in Buncombe County.

Homegrown Families was the only one that responded and actively shared Facebook and IG posts on their social networking profiles. A copy of the electronic flyer was shared with the organization, the Fourth Trimester Project, for posting on social networking platforms. This organization was selected because of its access to new moms and its professional initiatives. Their interdisciplinary team works to shift cultural norms and assumptions and actively support health goals for mothers and families. Though the Fourth Trimester Project is based in the triangle area of NC, their resources, found at <a href="https://newmomhealth.com/">https://newmomhealth.com/</a>, are relevant to all new mothers. Lastly, contact was made to a representative of Buncombe County's Nurse Family Partnership Services. This organization was provided with the electronic flyer, which they shared with their nurses who were doing virtual home visits.

Participants were provided with the researcher's contact information to enable them to call, text, or email prior to and during the study. As participants responded to the flyers, deliberate choices of eligible participants were made based on the qualities they had to ensure the most information-rich cases by using a screening tool to help ensure eligibility (Appendix D) (Etikan et al., 2016). Compensation was provided to participants after the completion of the interview. Amazon gift cards in the amount of \$15 were provided electronically as compensation for participants' time.

# Data Collection

For the purposes of eliciting information about individual experiences, interviews are recommended (Braun & Clarke, 2013). Semi-structured interviews are ideal for this topic because they are flexible enough to allow unanticipated topics to be addressed with

the natural development of the conversations as is appropriate for qualitative description (Braun & Clarke, 2013; Richards & Morse, 2013; Sandelowski, 2000). Participants were asked to participate in up to two interviews; the second interview could potentially allow for clarification, or more information is needed. Interviews were conducted virtually to offer flexibility for participants and safety during the COVID 19 pandemic (Doyle et al., 2020). Semi-structured interviews allowed for rich detail and the ability to adapt and ask questions related to ideas that come up in an interview but were not included in the semi-structured guide.

Procedures for virtual interviews relied on the computer as the primary recording for audio and visual on Zoom, and an additional hand-held device was used for a backup of the audio recording. Audio recordings were uploaded onto UNCG Box, the digital cloud content management server, until transcription and transcription verification were completed, at which point the recordings were deleted. Verified transcripts will be stored securely for 5 years, housed on UNCG Box according to IRB requirements.

Interviews. Care was taken to develop rapport with each participant, and interviews generally began with inquiries about themselves, their infant, and mothering in general before progressing into social networking questions. Following the description of the study, the demographic form was used verbally to assist the researcher in gathering relevant variables, including age, education level, race/ethnicity, and partner status (Appendix E). The proposed semi-structured interview guide began with a general question to ease into the interview. Next, the researcher proceeded into the semi-

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structured interview questions (Appendix F) developed based on research aims, missing information in the literature, and informed by Meleis et al.'s (2000) Transitions Theory.

- Can you begin by describing how you are using social networking sites—as a mom?
- 2. If you are a member of any specific mom groups online, tell me which ones and how you use them?
- 3. Can you describe for me if and how your experiences with social networking sites have changed since the birth of your baby?
- 4. What is the impact of these online interactions on you as a mother?
- 5. What features of the sites do you like, for example, closed groups, likes, discussion boards, DMs, scroll, chat, message boards, and how do you use them?
- 6. Do you think that using SNSs have supported your transition as a new mother?
- Do SNSs provide any support that you can't find anywhere else? If so, describe how.
- 8. You have shared a lot of information with me today, and I thank you. As you think back over our conversation, is there anything else that you would like to tell me that would help me to understand the experiences you have as a new mother using online social networking?

In order to test and evaluate the interview questions, a practice interview was done in October of 2020. The interview lasted about 45 minutes. The original questions

were revised to the current state included in this paper. Originally there were nine interview questions; some redundancies were noted and eliminated. It became apparent that the researcher needed to clarify or provide examples of social networking sites at the beginning of the interview and refine some of the questions. A question was added about site features as a way to elicit specific examples of elements that participants might use to interface on SNSs and a starting point for examples of ways in which SNSs are used by new mothers. Another question was added to further solicit information about if and how SNSs provide unique support that first-time mothers are unable to get from other sources.

#### **Protection of Human Subjects**

Participant protections included IRB approval. Information including an IRB information sheet and a Recruitment letter about the study's purpose was provided to participants prior to the interview via email. These documents were written at no more than a 10th-grade reading level using the Flesch Kincaid Grade Scale (Onwuegbuzie et al., 2013). At the beginning of each email, the IRB information sheet was reviewed with participants, and an opportunity for questions was provided. Information included on the IRB information sheet included the purpose of the study, possible risks, what the participants got out of the survey, gift card information, and how confidentiality would be maintained. Participants were allowed to ask questions of the researcher. Their confidentiality was assured and maintained by assigning a pseudonym to each participant for any in-text references. A master list was kept on UNCG Box, which is password-protected in accordance with IRB guidelines. The researcher's and dissertation chair's contact information was provided for questions or concerns.

#### **Data Analysis**

Thematic analysis (TA), specifically a reflexive approach, was used to analyze the data qualitatively as it offered an organized method through which the researcher identifies, analyzes, and reports themes from the data (Braun & Clarke, 2006). TA can be used for a variety of research questions, including those experiences that were the focus of this study (Clarke, 2019). TA is a flexible method that offered the researcher the ability to focus the meaning expressed by the participants and identification of common themes across the interviews to produce an in-depth and rich account of the data (Vaismoradi et al., 2013). The six stages described by Braun and Clarke (2013) were utilized to guide thematic analysis to yield rich and detailed descriptions of the data during the iterative generation of themes. Inductive TA was utilized to seek analysis that was grounded in the data, though it was not pure induction as there are inevitably influences of theoretical assumptions, philosophical values, as well as the experiences of the researcher (Clarke, 2019). TA can be either straightforward or complex as a flexible approach. Data analysis began and was ongoing throughout the data collection process and informed the researcher, and aided in the refinement of questions for subsequent interviews.

### Reflexivity

According to Clarke (2019), reflexivity is the key to TA. It is essential that the researcher be actively making choices and reflecting on their assumptions throughout data analysis (Clarke, 2019). As the PI, I am situated as a White, educated female, and my academic training, clinical training in nursing, and personal experience with

motherhood all had an impact on the conclusions drawn from the data. Space was made throughout the research process for reflexivity, and the findings should not suggest complete insight on the part of the researcher.

Transcription through an IRB-approved agency was utilized. During the interviews, note-taking strategies were utilized. Following each interview, field notes were written. Once interviews were completed, coding of the entire dataset, followed by searching for themes, reviewing themes, defining and naming themes, and lastly, writing the analysis was conducted (Braun & Clarke, 2013). After each interview was transcribed, it was read multiple times to capture an overall appreciation of items of potential interest, and field notes were reviewed to reassess initial impressions (Vaismoradi et al., 2013). See Appendix G for an example of sample codes and participant quotes that offers an excerpt of the audit trail used in this study (Nowell et al., 2017). Coding ensued, and data were sorted based on features from the entire data set (Braun & Clarke, 2013). Themes were proposed based on codes; then, these themes were reviewed and thematically mapped in various iterations to aid in the understanding of interrelationships between identified themes. Two members of the dissertation committee with expertise in qualitative methods had an active role in verifying the primary researcher's coding, searching for themes, and analysis. Once final themes were determined, they were named, defined, and a selection of compelling and descriptive quotes were chosen as rich descriptions in the discussion section. Tables were created to report demographics and commonly searched topics, and a figure of the thematic map was developed.

### Summary

This chapter described the rationale for a qualitative descriptive study to further our understanding of the experiences of first-time mothers using SNSs, and the support it may offer. The research questions about first-time mothers' experiences with online social networking provide were detailed. Convenience sampling methods were described with inclusion and exclusion criteria as well as recruitment strategies. Semi-structured interviews were utilized and were ongoing until data saturation was reached. TA was used for data analysis to provide a rich description of the participants' experiences. Appendices provide examples of recruitment flyers, sample screening form, interview script, and the demographic form.

# **CHAPTER IV**

#### FINDINGS

First-time mothers in the early postpartum period can be a difficult-to-reach population (Verbiest et al., 2018), and exploration of their experiences with online social networking sites (SNS) remains limited in the academic literature. The purpose of this study was to describe their experiences with online social networking sites in this early time period (4-12 weeks following delivery), to explore how mothers use SNSs to gain support, and to consider if SNSs were helpful or not in their overall maternal role transition. This chapter describes the findings of the study. A description of the sample is provided. The themes from the interview data are presented as they relate to the research questions.

# **Sample Characteristics**

The study consisted of a convenience sample of 12 first-time mothers who shared their experiences with online social networking sites (SNS) during the early postpartum period. Twenty-two potential participants contacted the primary investigator (PI) in response to the online recruitment flyers, which were posted on Facebook (FB) and Instagram (IG). Six potential participants did not meet eligibility criteria, and four did not respond following their initial inquiry about participation despite two follow-up messages. Twelve participants were interviewed virtually via Zoom from December 11, 2020, to January 19, 2021. Interviews ranged from 41 to 73 minutes in length. The

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interviews were digitally recorded and professionally transcribed. Transcripts were compared with audio recordings for accuracy, and corrections were made as necessary. Each participant was given an electronic \$15 Amazon gift card incentive in appreciation of their time. Participants' confidentiality was protected by the use of pseudonyms, and personally identifiable information was password protected; pseudonyms are used for reporting purposes.

The average age of participants was 31 years of age (range 25-38). The average age of infants was 9 weeks (range 4-12). The majority of participants reported their race/ethnicity as Caucasian/White non-Hispanic (11); one identified herself as Latina. The sample was highly educated; the highest degree of education was split between seven participants who had Bachelor's degrees and five who had Master's degrees. Ten participants were married, one described herself as partnered, and one was single; two participants were in same-sex relationships. Geographical representation was scattered over the east coast of the U.S., the majority of participants lived in North Carolina (NC) 7, followed by South Carolina (SC) 2, Tennessee (TN) 1, New York (NY) 1, and Florida (FL) 1.

All participants indicated that they logged on multiple times a day to a variety of SNSs. Active memberships were self-disclosed as their primary form of SNSs included IG (12) and FB (11); five participants indicated they utilized an account on the What to Expect application on their smart phones where they participated in a group of other mothers with the same due date month (example November 2020). Other SNSs mentioned included Reddit, YouTube, Twitter, TikTok, and Glow. Ten women

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participated in prenatal education, and five indicated they had received some form of postpartum support (e.g., doula, lactation). See Table 2.

# Table 2

Participant Pseudonym	Age (years)	Infant Age (weeks)	Highest Education	Partner Status	Race/Ethic Identity
Jill	32	12	Masters	Married	Caucasian
Laura	30	11	Masters	Married	Caucasian
Marta	32	4	Masters	Married	Latina
Nola	30	10	Bachelors	Partnered	Caucasian
Carleigh	30	12	Bachelors	Married	Caucasian
Wendy	38	6	Bachelors	Married	Caucasian
Astrid	31	6	Bachelors	Married	Caucasian
Fiona	35	12	Masters	Married	Caucasian
Stacey	30	8	Bachelors	Married	Caucasian
Heather	29	9	Bachelors	Married	Caucasian
Tina	31	5	Masters	Married	Caucasian
Susie	25	9	Bachelors	Single	Caucasian

Description of Study Participants

# **Thematic Analysis**

The participants in this study provided rich descriptions and thoughtful comments during their individual interviews. Field notes were written immediately after each interview and referred to during data analysis. Following the stages of Thematic Analysis described by Braun and Clarke (2013), transcripts were read and reread, and the PI became familiar with items of interest. Analysis took place throughout the interview process and in the month following the last interview. Individual transcripts were highlighted and marked. Complete coding across the entire data set was done, and quotes were highlighted and marked with codes on each transcript that related to the research questions. By the sixth interview, it became apparent that there were loose clusters of topics forming. After the 12th interview, transcripts were reexamined individually for themes keeping research questions in mind.

Codes were clustered based on their expression of associated content; for example, validating, reorientation, spectrum, gauge, range, perspective, and reassurance were all determined to be related in the review of themes. The PI then created a handdrawn map of provisional themes and subthemes to detail them and illustrate their relationships. Several iterations of the thematic map were developed throughout the analysis. Themes were created from the clusters of codes. Illustrative statements for each theme were then selected, sorted by broad themes, and then themes were defined and named. The final iteration of a thematic map (Figure 1) provides a visual representation of the organization and relationship of themes and subthemes. The two committee members, including the dissertation chair, both experts in qualitative research, were consulted throughout the entirety of the data collection and analysis process; theme developments were discussed and ultimately refined.

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# Figure 1

#### Thematic Map of Themes and Subthemes

The Invisible Footprint	New Purpose Online			
Passive Consumer		Taking it to the Moms		
	Information	C C	Impact on Motherhood	
	Intimate Preparation	Augmenting existing social networks		
		• Groups Source of Support	The New Normal • Real Motherhood Making Motherhood Easier Hindrances • Mom Guilt • Strategies for management of online negativity	

Four themes were developed from the data to answer three research questions that guided this study. Each of the four themes conceptualized during data analysis is defined and described. As illustrated in Figure 1, each theme is a distinct domain representing patterns from data that were underpinned by a central concept. When viewed together as in this map, they offer a story of the cumulative experiences of these first-time mothers moving from general to specific ending with impact. The themes offer descriptors of how, what, who as well as the impact of SNSs on Motherhood. The first theme, Habits of First-Time Moms, was constructed to express *how* first-time mothers interacted with and use online social networking sites during the early postpartum period by describing their general habits. The second theme explores *what* participants were doing on SNSs and

*where* they were doing it by exploring their New Purpose Online as mothers. Theme 3, Taking it to the Moms, describes *who* the participants go to for support and how they use that support as first-time mothers. Lastly, Theme 4, Impact on Motherhood, explains both the positive and negative influences that online SNSs had on these participants in their maternal transition. Each of the four identified themes is presented with corresponding subthemes and described with illustrative participant quotes.

### Theme 1: Habits of First-Time Moms Using SNSs

All participants in this study were avid consumers of online social networking content. Theme 1 offers a review of habits to summarize the use of SNSs in the early postpartum before exploring in general *how* first-time mothers interacted with and utilized SNSs. Their presence, described here as an invisible footprint online, may appear undetectable to the online SNS community because the participants themselves were infrequent initial posters of questions or comments. Therefore, their names or presence is not evident. However, although they were not posting their own questions or comments, they are readily consuming and processing the content on SNSs.

Every participant reported logging on to SNSs multiple times a day, though when asked, they were unable to provide a specific number of minutes or hours. The majority associated their online SNS use with infant activities, indicating they logged in during nursing sessions or while their infants were napping. Generally speaking, newborns breastfeed every 2-3 hours, and at times they might cluster feed, thus indicating that online SNS time engagement done during feeding plus napping is a significant portion of their day. Participants reported a change in habits on SNS use following the birth of their baby. SNSs were accessed more frequently throughout both the day and night while adjusting to an infant feeding and napping schedules and mothers' increased amount of time alone. Online SNSs use increased overall, and it was described as having a new purpose compared with pre-pregnancy and pregnancy use. All participants had an account on either Facebook or Instagram; nearly all were members of both sites, but participants generally indicated a preference for one over the other. Several participants mentioned using Reddit, TikTok, and Twitter as complementary but not primary forms of online social networking. Other social media platforms mentioned included YouTube and Pinterest. Several of the moms utilized the Whattoexpect application and were in large group forums organized by the month of their due dates. This application was joined during pregnancy, and some of the mothers continued to access the group forums for postpartum information and support.

# The Invisible Footprint

The combination of high usage but limited identifiable input from participants is described here as an invisible footprint. The frequent content access and reliance on SNSs as a source of information and support was evident from the participants' descriptions, yet they themselves indicated that they rarely posted or commented in maternal groups. Participants attributed their reticence to posting either initial posts or comments to existing discussions to their lack of experience as well as the plethora of existing information accessible to them. As Laura said,

I would say in the beginning I was really just receiving it [information] and I wasn't really participating. It's a lot of information, but I would say I mostly just

consume, like I'm not putting any parenting advice out there, because what do I know at this point? Not very much.

There was also a wealth of content available on SNS. Heather indicated, "I very rarely post my own posts unless there's something big that happened or if I have a question that I can't find an answer to that it's been asked previously." Susie echoed that sentiment, "I haven't [posted] because, normally, I can find someone else's questions. So, I don't have to." Often a topic or question has been posed in a group forum or on a post, and that information was freely accessible to participants. The search function was a popular feature to access a wealth of posts on topics relevant to the new mothers.

Participants expressed a hunger for a continual and refreshed feed of specialized content related to newborn, maternal, and parenting topics. As Laura described, "I feel like now because social media is so quick, you're consuming it so fast and so much, stories make it so that there's more content in a shorter period of time, which is kind of nice." One Instagram account was mentioned by almost half of the participants. TakingCaraBabies is run by a maternal nurse named Cara, who is married to a pediatrician. She posts stories and reels (short video clips) frequently with content that new moms found relatable and offers fee-based virtual courses related to sleep training that several participants purchased. Carleigh reported "religiously" watching all posted content in this account. She, like several other of the participants interviewed, expressed being very invested in seeing relatable content regularly from a source they trusted because of her background and use of reputable sources. Wendy described how she and her husband devoured the content (both the free online IG content as well as the paid

subscription to an infant sleep course). "We watched it, we binged them like a show. It was all this information and insight and just her expertise." Indicating perhaps, a hunger for the content and material and demonstrating how SNSs are heavily relied on as an information access point.

# **Passive Consumers**

Participants expressed that they wanted to be able to find the information and support, but they did not necessarily want to actively participate by posting questions or comments on SNSs. They preferred access to a virtual maternal community that served as a repository of relatable content and human connection that was low maintenance. While Facebook groups offer opportunities for two-way interaction and active engagement, they were primarily utilized by these participants to access a one-way flow of maternal experiences and information. This allowed the participants to function as passive consumers through SNS, creating low to no maintenance relationships because, for the most part, they were accessing the content rather than actively engaging or posting within the groups. Stacey differentiated this as, "it's not really trying to have some deep connection with anyone, it's just having a little bit of human interaction, even though it's through social media." Perhaps for new mothers who are early in their maternal transition, the ability to have access to a network of people sharing relatable content and experiences without the need to maintain a relationship was a welcome relief. It offered them the opportunity to be able to come and go online, access what was needed, and leave what was not all on their own timeframe. Fiona described an appreciation for a passive consumer-type relationship with access to the information.

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You can still interact and get responses from people who you may never talk to again. And that's okay because there are a million other people out there who will be there the next time for you and for that other person who you're no longer going to talk to again. It's not personal.

Wendy explained,

I like that you can dabble in different things, you can test out something and then there's not a commitment to keep following it or keep up with it. Because I follow a lot of stuff, and then I watch their posts and then if I'm not into it, I just unfollow them. So, I guess you're saying that there's not a commitment there.

The ability to take or leave information without having the normal ongoing maintenance of a relationship allowed participants to have access to a variety of information and support that they needed on their own terms and without any additional work on their part.

Access to this virtual motherhood collective allowed participants to explore various perspectives, tips and tricks, and a large virtual community of fellow mothers. The wealth of experiences that participants could have access to was described as beneficial. Carleigh explained that she was thankful for the access and how relevant content was even when it was from a year or two ago. "I'm just so glad that it's there. I also like being able to search previous posts, even from a year ago or two years ago, and it's still relevant to what I'm looking for." It also provided a space that articulated and acknowledged a communal experience. Wendy noted, "Sometimes I honestly just look to see if there's even a same question and that's all I'm looking for." The ability to tap into a large motherhood collective and find reassurance in a communal experience provided a form of support for new mothers to help them feel not so alone in their solitary experiences of mothering at home. Online SNSs offered a good starting point. Susie's comment helps illustrate the sentiment many participants expressed about wanting a large quantity of information without the pressure to respond. Susie explained, "I'll take all this information and I'll try it. And, if it doesn't work, okay. That's fine. But it can't hurt. So, the more you have, that's not necessarily a bad thing."

#### Theme 2: New Purpose Online

The second theme, New Purpose Online, is an exploration of what first-time mothers accessed by using the existing capabilities of their online social networking sites. Prior to pregnancy and birth, social networking sites had been mostly reserved for amusement and online socialization, with some minor informational access. At home with a new baby, limited social interactions with the outside world, time on their hands, and new questions, participants described utilizing online SNSs for a new purpose. SNSs offered a valuable access point and fulfilled unique needs in a way that contrasted with previous SNS habits. Their reasons for repurposing social networking sites were undergirded by a sense of urgency in their desire to get time-sensitive information quickly. The new purposes included access to specialized new mom information and a unique avenue to maternal support during feeding and napping stretches of time. This offered access to content, newly relevant to them as first-time mothers, that was quite literally at their fingertips.

# Information

The participants described a new purpose with online social networking that was different than their previous interactions with SNSs. One participant was surprised that SNSs had become a source of information. Marta explained, "I've never actually gone on social media with a purpose of finding something like advice from people before." Wendy expressed that the main difference in her purpose was content, "Before, I was looking on Instagram or social media in general just for, I guess you can say, pleasure. And now I actually look for information." Similarly, Susie explained,

I would say I use it, not more, but more with a specific focus, if that makes sense. Instead of just aimlessly scrolling because I have nothing better to do, I'm like, "Oh, hey. We can actually learn something, or we can see what's going on in these people's lives."

As participants were describing their use of SNSs, they consistently expressed three main uses. These uses included entertainment, which was not a new type of SNS use, information, described here, and support, discussed in the Taking it to the Moms theme.

There was an overall appreciation for information presented in specific formats. Small bite-sized chunks of information that could be processed during a short time frame that moms had available for online scrolling were ideal. Carleigh said, "And it's all just bite-sized, so it's really easy for me to just quickly see it as I'm nursing him. That's kind of the only time I'm on my phone." Tina similarly appreciated manageable chunks of information, explaining that she "like[ed] small pieces of information at a time are very helpful." Descriptive images and charts, also known as infographics, were preferred ways of having information presented because they were quickly digestible and consolidated information in an easy-to-understand format. As Susie explained,

I may not have time to go and read four different books on parenting, but I can look at this picture and it's got, "Okay. Try this." And I'm like, "Okay. I can try that." It's a quick little ... because, typically, I can read them in under two minutes, the entire post and all the information. It's like, "Okay." Little snippets like that isn't as overwhelming as, "Okay, here's a book. Go read it."

Having access to specific tips or tricks presented in concise wording or illustrative

images was appealing. It made the information easier to retain and eventually apply.

Often participants had very specific questions and searched out content

specifically to help themselves with their new role; infant feeding, infant sleep habits, and

postpartum recovery were popular topics (Table 3).

# Table 3

Popular Topics of Interest

Maternal	Infant	General	
<ul> <li>Returning to work</li> <li>Postpartum recovery specific to the type of delivery</li> <li>Milk Supply</li> <li>Exercise</li> </ul>	<ul> <li>Feeding techniques (breast/bottle)</li> <li>Sleep habits</li> <li>Sleep training</li> <li>Temperament</li> <li>Swaddling techniques</li> </ul>	<ul> <li>Pumping (breasts)</li> <li>Milk Storage</li> <li>Provider Recommendations</li> <li>Co-sleeping</li> <li>Daycare</li> <li>Meal Planning</li> <li>Product Recommendations</li> </ul>	

# Carleigh explained,

I'm part of a Spectra group. That's the [breast] pump that I'm using. I joined it a couple of weeks ago because I'm starting to use the pump and I'm nervous about using it. I like that I could pick up a lot of random thoughts and random tips through that page just while I'm on my Facebook page versus having to actively seek it out. And I learned the lingo. I'm now joining the pumping world, so I wanted to make sure that I understand how to use my pump and all that sort of thing.

Participants sought out information from a variety of forums and groups to give themselves well-rounded exposure to a variety of information from a collective 'mom tribe.' Information searching was often driven by a specific concern (sleep training, daycare, pumping/return to work) and sometimes was motivated solely within SNSs because it was the most socially appropriate way to receive reassurance about a sensitive topic. Wendy said, "I guess in a way I wasn't asking weirdo questions for one thing; you know what I mean? This is a normal question someone else after giving birth had. And that so many women were in the same boat." The ability to have access to information from other women who had a parallel experience was valuable because it indicated to them that they were not alone. Additionally, it meant that they did not have to ask the question themselves. Some topics they searched for they considered more intimate (for example, resuming sexual activity or hair loss), and participants indicated they appreciated an outlet where they could get information from fellow moms without having to ask their friends.

# Intimate

Intimate topics that were relevant to these participants ranged from things that are just not common knowledge to first-time mothers or taboo topics that they might not call a provider for or feel comfortable asking in their peer/family group. Wendy described,

Things that you might be a little embarrassed about, I guess. It's kind of nice to do a check-in anonymously first. And then once you see that there are 1,000 posts on this exact question, then you're like, "Okay. This is very common."

Carleigh explained how the forums work to provide a blend of relevant content and support.

Yesterday was, "Still not feeling sexy to my husband." Then, it had like 80 comments of like, "You got this," or, "Oh, me too. It's really a struggle. I'm feeling really down about my body," things like that. Then, they'll be like, "Who's in Leap 3?" because Wonder Years is another app that I use. That's not related to this, but it's kind of like a growth spurt thing. "Who's in Growth Spurt 3?" And everyone's like, "Me, me. It's terrible. I'm almost out of it." So, a lot of people have talked about that kind of stuff, very relevant timewise for me.

While existing social networks of friends and families were mentioned by many of the participants as helpful, many made a distinction between what they felt comfortable asking peers and family members. The limitation for utilizing friends and family members for more sensitive topics was balanced in some ways by using SNSs to fill a gap by providing access to intimate topics and information. The ability to quickly search about a topic and see that it was commonly posted about and to be able to find information and experiences helped fill a gap in a way unique to SNSs.

Other times the information these participants wanted was more general. Wendy appreciated the ability to harness the power of SNSs to see examples of how other moms did things. "Now I go on [SNSs] and I look for Instagram accounts where they give you good, easy tips. And they have, I don't know, just like familiar ... not familiar, but like other moms that are really good." The exposure to tips and tricks was described as valuable. Susie gave a specific example

... there was one that said, for bath time, with a stuffy baby, you could put them in the little bouncer or something in the bathroom while you take a warm shower. So, you aren't putting your baby in the hot water, but the steam from your shower helps open them up.

Nola expressed that she sought out a variety of groups on Facebook to have regular exposure in her Facebook feed about newborn sleep content. "There's a couple other sites that deal with sleeping with babies and tips for getting them to sleep." Access to a steady stream of customized information based on topics they wanted repeated exposure from fellow moms provided easy access to information, which participants expressed needing to help them be better mothers.

#### **Preparation**

Many of these first-time moms expressed an appreciation to stay in the loop in a general way to all things motherhood. They indicated exposure to relevant information was helpful to them both at the present time and because it helped them be prepared for upcoming infant and maternal milestones. The ability to be prepared and familiar with so many of the products, milestones, and experiences was repeatedly expressed. Carleigh described,

I've learned a lot, and I feel like I know a lot of things bouncing around in my head that I don't even know that I'm digesting in a way, but it just gets me prepared for the next stage of when he's crawling. He's not eating solids yet, but I follow an Instagram baby-led weaning lady who talks about how to approach food. It's not relevant per se yet, but it will be in a couple of months, and I'm introduced to that kind of content now.

Similarly, Stacey wanted to stay aware of what was to come: "... obviously, we're not anywhere near that point yet, but I just thought it was interesting to have an idea of what that [baby led weaning] meant because I had never even heard that term before."

Another mom expressed an interest in having access to a steady stream of information that exposed her to the general rhythm of new motherhood in an easy-toaccess format. Tina wanted to "just see what's going on. And I feel like I like that. It's kind of like quick tips and resources and that sort of thing." Being engaged in a real-time network of related content provided valuable information to these participants in a userfriendly way that allowed them to be prepared for things to come.

#### Theme 3: Taking it to the Moms

The importance of peer-to-peer support from fellow mothers and the value of access to a virtual motherhood collective was discussed repeatedly by the participants. The third theme described who these participants were going to on SNSs for support and explored why some sources were preferred over others. There are many unknown variables that make it impossible for first-time mothers to completely prepare for the unique self and infant needs that occur during the early postpartum period. Participants expressed that they did not want just anyone to contextualize their experiences or advise them; they wanted other mothers actively experiencing motherhood to be their primary source to help them understand and process motherhood, but with the option to utilize healthcare professionals as necessary. As Wendy said, "I wanted to check in with other moms before overreacting ... so, yeah, I went to the moms." Taking it to the moms represented a theme that describes the specific type of support that online SNSs offer new mothers. This theme includes a discussion of how SNSs were used to augment their existing personal and online social networks and how fellow mothers online compared traditional healthcare professionals as a source to fellow mothers.

#### Augmenting Existing Social Networks

The participants in this study were able to modify their existing online social networking accounts to control and curate their feeds by choosing who they followed and who followed them. This capability allowed SNS users the ability to customize their feed as a way of increasing exposure to newly relevant content. It also offered a way to augment their existing networks by extending access beyond their pregnancy and prepregnancy friends. Participants sought out new group memberships and began following other individuals and influencers, which built up a larger pool of people that provided some form of support in their new role. Participants used SNSs to broaden their existing social networks. Nola explained that it served as "an extra way to connect with people in a time that we can't connect with people the way we normally would." The impact of COVID on the participants was regularly brought up in these interviews by the participants themselves. In-person interactions due to the pandemic were extremely

limited, and SNSs provided an opportunity for human interaction. Carleigh described,

I definitely use it to connect with other moms, especially in COVID world where I don't really have that ability that much, and to connect with other moms because I don't have any friends that are going through the same experiences that I am right now ...

Occasionally moms developed either an in-person or a virtual friendship as the result of participating in a mom group on an SNS. Carleigh explained that she is connected with local moms she has seen in the online group forums, and that has helped

make her feel more connected.

... I've met different moms that I've recognized names, and I'm like, "Hey." So, it's more of a local network. With COVID and everything, I don't really meet anybody [Laughs] so it feels a little more connected.

A few moms were able to take virtual connections and turn them into in-person

friendships. Marta explained,

I've met one mom that I've hung out with. Just knew that she was in the same boat—just moved here, didn't know anyone, also pregnant. She gave birth maybe a couple weeks before I did. It was hard. Everything, honestly, just shut down. So, there wasn't a way to meet moms. Being new here, I don't know anyone that had any children or anything.

**Groups.** The majority of women had joined at least one group on Facebook

related to mothering; most had joined multiple groups. Group membership varied and

was often a blend of regionally-based groups and larger national groups. Local birth

organizations like doula groups, birth centers, or groups organized by city or even neighborhoods gave women access to information that was specific to their region. Larger groups often centered around a specific identity, like breastfeeding or bottle feeding, working moms, baby products, exercise, or were organized by an organization (e.g., LaLeche League). A huge variety of groups exist online for moms to join based on what group characteristics they preferred or identified with. Groups could be open or closed; participants indicated that they had a preference for closed groups. Closed groups were noted to provide a safe space for sharing experiences. Susie explained,

... closed groups are really nice, just because you know that, if you post something in there, it can't go out to the whole world. It's just the people in that group. And most of the closed groups I'm in, it's like, "Okay. Why do you want to be in this group?" And then, there's rules like, "Okay. Well, you're going to be supportive. This is here to help people, not make it harder to be a parent." So, if you feel like you can open up and actually be more honest and stuff, admit that you're struggling without being like, "Okay. The entire world's going to know this."

These groups provided a place to either participate in or read through discourses about motherhood that participants indicated provided a space for honesty and some degree of anonymity. Group moderators usually functioned to help maintain a productive online space. Larger groups also served as a huge repository of information participants could search through, and because women could join many, women were able to seek out collectives of mothers with shared maternal identities or struggles. This offered the potential for participants to curate the feed of information they see when logging in, and it serves to help them augment their support networks.

# Source of Support

It became apparent that the source of support was important to participants. While there was tremendous value in professional or traditional healthcare professionals, these participants indicated that sometimes what they needed was reassurance from fellow mothers, which was very different from the type of support they received from healthcare providers. Wendy said, "... knowing it's okay clinically is nice, but also just seeing another woman post the identical question was comforting." Fiona described this difference,

I think there is a lot of value to the medical community and getting information from the pediatrician and OB is something I think I put a lot of weight on. I believe what they have to say is based on a lot of experience and education. But I think there are a lot more informal topics that I've come across on social media like the body image stuff that aren't necessarily discussed. I think it seems like mental health is definitely focused on, and like three or four times now I've had to fill out a survey based on my mental health to see where I am and how things are going. So, all of the ... I'm trying to think how to word it. More like diagnosable things perhaps are discussed at medical visits, and I think that's really important. But some of the, I don't know, more personal things, I guess, like the postpartum hair loss, something that's maybe just a physical challenge, is not discussed. So, I think those communities and both groups, whether it be a doctor's office or a virtual group, have value. But I do find them to be very different values.

Women valued access to both personal and professional support networks because they filled different roles in their lives. They were not necessarily seen as competitive; they were used in conjunction with each other. Participants needed access to both because the traditional healthcare model does not provide the emotional support, reassurance, and tips and tricks that women described they needed.

Heather explained, "... it's nice to hear from somebody that's been through like what I'm experiencing." The value of relevant experience was held in high regard by participants. They were able to access information and support that they could not get from their providers. Heather went on to describe this,

... something can work from somebody's experience that might not necessarily work for my experience. So, it'd be good to have like definitely a range from different people or even from different, I guess, points of view. Because sometimes what you get from a healthcare provider might not really work for you, but a mom that was told the same thing, tried something a little bit different and worked for her.

There were factors that helped them decide which resource to reach out to, when,

based on timing, urgency, and the type of question. One mom described it as a sort of

triage. Tina said,

I guess if it's pressing, like I need to know an answer to this or something, I would, yeah, reach out to someone. But if it's just kind of like, "Oh, I'm curious about this," or I saw it somewhere and I want to learn more about it, I guess, would be online.

Sometimes participants wanted information or support quicker than the time frame that

could be offered by their healthcare providers. Susie explained,

... with social media and stuff, it's easier to find stuff faster instead of trying to call my doctor and wait for them to respond or ... because the lactation ladies are busy during the day. So, normally, it takes them a day or so before they respond. So, unless I'm going in that day, to the mommy group, it may be a little while before I hear back an answer. Where I can go look online and be like, "Okay, make sure I'm not completely off-base here."

Participants seemed to take the perspective of the more information, the better and appreciated having access to a variety of maternal sources online. Access to a plethora of maternal experiences and postings were valuable as a springboard and general exposure that they appreciated prior to bringing up a topic or fact-checking something with a professional. Susie explained,

A lot of times, I do both. Because, at 2 o'clock in the morning, when you're feeding and have a question — because that's when you end up with most of your questions — I'll typically go and look on social media. And then, especially with breastfeeding things, I would look on social media. And then, on Wednesdays, I'd bring it up to my lactations ladies and be like, "Okay, I found this. Is this good advice or not?"

The ability to tap into the collective wisdom of mothers was valuable and was utilized to provide support as well as practical tips and tricks that were not provided by healthcare providers.

#### **Theme 4: Impact on Motherhood**

Theme 4 includes three subthemes that describe how mothers used SNSs to orient to their New Normal, how SNSs Makes Motherhood Easier as well as the impact of negativity online described as Hindrances. Each participant provided examples of how SNSs had helped her, although the depth to which they attributed the helpfulness of online SNSs varied. SNSs were overwhelming described as a helpful tool by participants. Orientation to their new maternal role was a major source of positive impact as participants repeatedly described a need to gauge where they were on the spectrum of the 'new mom normal.' The participants in this study were interviewed during the early postpartum period, and each of them was actively transitioning to their new role, balancing the difficulties and challenges, and actively looking for resources to help them. SNSs filled a unique gap; they offered access to a large, diverse community of mothers that could be customized and the opportunity to connect in a low maintenance and supportive format that they described overall as making life easier. Participants also described some negative experiences as well. Although the overwhelming takeaway from the participants in this study was that SNSs were helpful, both the positives and negative experiences are reviewed to give an accurate portrayal of their experiences.

#### The New Normal

Participants in this study described using SNSs as a way to find emotional support, camaraderie, and reassurance from fellow mothers by connecting through a shared maternal identity that was accessible to them in a virtual format. Several participants expressed the loneliness of early motherhood. Wendy's quote expressed this well, "... it's a weird thing once you get home with an extra person but all of a sudden, you're kind of alone with yourself a lot. You know?" Nola described something similar but added how being a part of a virtual maternal community ameliorated the loneliness. Nola stated, "just reading other people's experiences that are similar, it's helpful for me to not feel alone, especially when it comes to wanting to be independent and not being able to." There was a sense of camaraderie described by the participants, which served as a form of empowerment for some mothers. Fiona said,

I think having an online community of people who are experiencing the same or similar things can make you feel empowered and like you're not alone, and you can do this because all these other people are doing it, too. Whereas I think before the internet and social media, you maybe would feel like, "Why me? I'm the only person going through this."

Access to a modern motherhood collective served as an important touchstone of support that offered validation and reassurance and helped to orient these participants to the new normal of motherhood.

The online groups and forums functioned as a repository of positive affirmations and descriptions of a new reality that new moms found relatable. Laura said, "I feel like I can relate more to moms now, so I look more at that kind of thing because it resonates more with the kind of life I'm living." Access to a group of women sharing about their maternal experiences helped to provide emotional support as new mothers by reorienting them to their new maternal reality. Susie described it as a reality check,

You had a newborn, so you're tired, you're exhausted, you're frustrated because you didn't get the dishes done," stuff like that. It's just nice for them to remind you, "Hey, it's okay you didn't get the dishes done. You're not a bad mom because you can't clean your house, and take care of a baby, and yourself, and everything else all at the same time.

These participants were actively transitioning to motherhood for the first time, and because there is no way to prepare for all the micro-adjustments, it was helpful for them to be frequently oriented to the new schedule of things and range of experiences. Each day could vary greatly, and at times life was described as overwhelming to manage with all the varying infant and maternal needs. Having access to online SNSs where fellow mothers described their day-to-day reality and, in a sense, gave them permission for things not to be perfect helped normalize the range of experiences. Stacey's quote illustrates this:

... I wouldn't even say that it makes me feel like we're not doing that bad or we're doing great, it's just knowing that other people have good days and bad days. Sometimes you get pooped on, and sometimes you get peed on, and sometimes you leak milk everywhere, and sometimes you spill milk, and sometimes it makes you cry, and sometimes you laugh. It's like different things happen, and you just get through it, and every day is not perfect.

This support functioned as a unique form of camaraderie with a large collective of

mothers that connected in a virtual landscape. Expectations for motherhood needed

adjusting, as perfection was no longer the goal. Finding more appropriate reflections of

the new normal was helpful. Nola explained,

... for me it's just really helpful to know that there are other people out there dealing with the same issues, I guess social media can also ... I mean, people tend to put their best foot forward, so following people that are a little more vulnerable is beneficial.

This camaraderie helped lend access to a universal experience of motherhood that helped

reduce their feelings of isolation as well feelings of failure. Marta described,

It's nice to see that I'm not the only person going through all this stuff. That's probably the main reason I go on there. Sometimes I'm like, "What if I'm ... not a failure ... but I wish I could do this better?" But at the same time, I see I'm not the only person in this boat, especially with COVID stuff. Nobody's going out and meeting people, or having mom groups, or anything like that. So, it's not just me.

Wendy described the motherhood collective as her substitute for the in-person contact

that she was missing.

... social media has kind of become your socializing at the same time. So, I think that's a part of it is just feeling like you're still part of a collective of people. Especially now with the baby, we can't really be around anyone. Oh, because if it hadn't been COVID, I probably would've joined some Mommy and Me class and had other pregnant friends local, you know what I mean?

The shared experience was of tremendous value. In the following quote, a participant shares her appreciation for finding a group that had information specific to a fussy infant. Carleigh stated,

... because it just feels so relatable. They call their babies dragon babies, and there's dragon and unicorn. It's just funny to me because everyone's like, "My dragon is eight months old, and he's going through a weird stage. Screw all the women that have unicorn babies." So, I also find that one makes me feel good sometimes ... it's very supportive and it makes you understand other people are going through similar stuff. Because I have no friends that are pregnant or have any babies yet, [Laughs] which is crazy because I'm 30. So, I feel like these sites have helped me feel connected with other women who are going through similar things and relatable. You hear about like, "Oh, my baby slept for 12 hours," and it's just like, "Ugh, why isn't my baby doing that?" And it just feels nice to know that not every baby is doing that.

Ultimately, moms wanted support from fellow moms actively experiencing motherhood because they felt understood and could relate, which provided them with a sense of support that was valuable. As Laura explained that there is "... definitely [a] sense of camaraderie with really any person who's a mom, I would say, whether them or not, on the Internet. I feel like, new moms, it's just like there's an understanding there."

**Real Motherhood.** Along with orienting to a new reality of motherhood and gaining wisdom from the motherhood collective, several participants indicated that SNSs also served as a helpful source that defined motherhood in a more truthful way. Societal norms promote a form of perfection with a smiling happy baby and mom appearing to sail through motherhood without issue. New moms in this study recognized this online and understood it for what it was, but also appreciated the outlet SNSs provided for seeing a different, less perfected, and unrealistic version of motherhood presented in comments and images that illustrated what they called the real side of motherhood.

SNSs gave women access to forums that, in a sense, gave permission to not be a perfect mother and acknowledged that real motherhood is messy. Laura's quote illustrates this well:

... you don't need to be this picture-perfect mom. It's okay to feed your kid chicken nuggets. It's okay to ... I'm trying to think. If you need a moment, to get away, put your child down and walk away for a minute, stuff like that that is sort of talking about real life and not, hey, here's my beautiful made-over face and my beautiful child and a perfect outfit.

Having access to a multitude of posts that gave credence to the reality of motherhood served to reassure participants even as they embraced the beautiful, messy struggle. Tina explained,

I feel like a lot of this stuff I follow is very realistic, where it's like, "Yeah, everything's a mess and that's okay. If you're even whatever, you're probably doing fine." ... I feel like that perspective is always very helpful for me. It's like you're alive, you're breathing, you're good. You don't need this whole image thing. And I feel like a lot of the pages or whatever that I follow are very realistic of like, "Do what you ..." I don't know. Just very validating of like, "Things aren't perfect. And like do what you can. You're doing great. Everyone's healthy and alive. Here we are," kind of stuff. ... There's no perfect parent. And as long as you're there and doing what you can, that's [enough] ...

Validating the difficulties of motherhood that are juxtaposed with the beauty of it provided comfort for mothers.

Body image was brought up by several participants. Several of the women indicated they had struggled with body image pre-pregnancy. Having access to posts that reframed postpartum body changes as beautiful because those changes are an important part of growing a baby provided reassurance. Nola said, "it's helpful for me to see people that do have postpartum stretch marks and their bodies haven't bounced back perfectly, because body image hasn't always been the easiest thing for me." Similarly, Wendy explored the value of positive mom truths related to body image.

So, anyone that's posting about their bodies and especially showing their bodies and, "This is what it looks like, it's fine. We've given birth." Or people that post like, "This is hard. This is amazing but it's also hard." I feel like those are positive because you kind of have this pressure of you have a baby, you're a new mom, like airing ... You know what I mean? Like, don't complain about anything. It's hard. It's awesome but it's hard.

Reframing body image and making the body changes from birth positive was described as empowering. Fiona explained,

For example, like a new mom body image and things. There will be posts that are really in support of loving your new mom body, and I'll see those. And it'll be a picture of what someone used to look like, and then them pregnant, and then afterwards with the baby, and their stomach obviously looks quite different after. And I've found myself looking at those a lot more because it's nice to see. And I don't know, I guess lowers the expectation that most of media portrays.

Orientation to a new normal with a more realistic perspective was noted to be particularly helpful for participants that identified with non-traditional families or for those who described needing to connect with others with similar birth or postpartum experiences. SNSs offered the ability for women to choose who they followed, allowing a curated feed of families for mothers that looked like them or had similar values. Susie explained how challenges for single mothers were very different than mothers who parented in a partnership.

There's one for single moms, which has been nice because they'll share their struggles or the happy things that they've been able to do. One of the moms just graduated with her Associate's degree. So, she was able to do it all online. And I was like, "That's awesome. That's really good. It's hard enough just being a mom, much less going to school and being a mom."

Susie was able to gain specific information that she found relatable to her circumstances by being a part of SNS groups that met under the shared identity of single motherhood. Having access to other moms and families that represented nontraditional norms was helpful because it provided increased exposure and parenting variations that were relatable. Nola explained, "... it's nice to see other LGBTQ parents, just because it's a much different path to having a baby if you're not in a homosexual relationship." Birth experiences also came up as a time when participants sought out groups or other mothers who were describing a similar experience. Jill sought out information and posts related to an extensive tear during delivery as a way to process what she described as a traumatic delivery. Jill explained, "Currently I'm seeing more content that is more relatable to me. So, I feel like that supports my experience." Stacey's birth resulted in an unscheduled cesarean section, and though she did not seek out information on this delivery type originally, after finding it, she followed it so that she could have access to information relatable to her: "... it's just an account that posts things about C-section, and C-section stories, and stuff. I really don't know how I ran across it, but I did start following that account."

#### Making Motherhood Easier

Participants in this study described several ways SNSs made motherhood easier, including the provision of anticipatory guidance, empowerment and validation of experiences, access to specialized content and support, all of which cumulated into an increase in self-assurance. Feeling capable and confident are not feelings that moms described often experiencing during the early postpartum period. However, they did indicate that that access to SNSs in the early postpartum period helped them to become more confident. Carleigh stated, "it's hard to imagine my life without it. Yeah, it's really hard. It definitely makes me feel more confident that I've turned over every stone in a way versus kind of just going off of what my sister-in-law would say." For Carleigh, the ability to access information and apply it to her life helped her feel independent and capable during a time when she was feeling vulnerable and in need of additional resources. Having a place to gauge if what they were experiencing was normal during the early times of uncertainty was as described as having a high value. Heather said,

I feel like it's made me a little bit more confident as a new mom. My baby, he'll do something and then it's like, "Ooh, was that normal? Or what's going on?" And then I can go and look and ask other people about it and then find out then,

"Okay. Hey, yeah, that is normal. My baby is not the only one that's doing that or not doing that."

SNSs served as an easy-to-access source with a huge repository of accessible information and support. Jill described the general nature of positive support,

I definitely would say that there's a lot of positivity going around ... I think society as a whole is leaning more towards like normalizing formula ... I mean, overall, what I see on social media as far as parenting and motherhood is positive. I think there's a lot of people out there who are trying to just let you know that, hey, you're great, even when you don't feel like you are.

Access to SNSs filled a gap and really seemed to Make Motherhood Easier.

Without a quick and trusted way to access the collective maternal community to provide reassurance and validation, Heather said, "I'd probably definitely be less confident and then all the time questioning myself." Having a simple way to access other mothers and online chats and discussions at any time served to empower moms to find and filter information based on their needs and preferences. Susie expressed this as well, "with social media, you can go and look, and you can find all the different pages and learn a whole bunch without having to feel awkward about asking people information." SNSs helped reduce the isolation and ineptness some participants described feeling and gave them a direct access line to a network of mothers.

SNSs make motherhood easier by allowing mothers some control in when, how, and from whom they get information. Without SNSs, early motherhood would have been more difficult. Laura stated, "I feel like I would have less information but also less camaraderie with other people who are going through the same thing even though I have no real interaction with them other than consuming the content or viewing what they're doing." SNSs offer a unique way to connect with others; Carleigh described SNSs as "a new avenue to connect with other moms that I wouldn't otherwise have." SNSs are able to fill a void. Wendy said, "I think I would have been in a much worse place if I didn't have these [SNS] resources right now." More of the time would have been spent wondering if they were doing things right; access offers a quick and simple way for women to selectively engage and access relevant content.

It is difficult to detangle what the impact of SNSs would have had on these participants before COVID. Fiona explained a before and after.

Especially right now because of COVID. I think there is a lot less of that physical community happening. I had some great coworkers at my office who prior to getting pregnant and really soon after I was pregnant, if they knew I was pregnant, that it was nice to talk about those things with. But I've been working from home since March. I've not had any physical office environment. And I think social media definitely has provided that during this pandemic.

Some participants grieved not getting to access the normal postpartum in-person

experiences with fellow mothers. Marta said,

I think the fact that it's COVID and that there's nowhere ... I don't know where ... There's no new mom group for anything. I remember before COVID my friends were like, "Oh, we're on maternity leave," and they'd go out to lunch or meet up in the park with new moms. I don't really have that social aspect of it to talk about what it's like to be a new mom or stuff like that.

The ability to have a form of human connection and access to a shared experience and maternal identity was described by these participants as having a positive impact on their motherhood experience.

## Hindrances

SNSs are not described exclusively as places of positivity and support. The participants in this study described exposure to behaviors that they characterized as negative and not supportive of their maternal journey. These ranged from SNSs serving as a time suck and a distraction from real-life interactions to a toxic online environment full of oversharing and overwhelming opinions that functioned as a place where competition and guilt or mom-shaming could run rampant and perpetuate unattainable standards. Fiona explained how time-consuming it could be:

I think in general; I've had really positive experiences on social media and have been pleased with the time that I spent on there or the outcomes of my interactions. At the same time, I think if social networking were not a thing, I probably would have spent a little more time lovingly gazing at my child while I breastfed every time instead of just looking at my phone during some of those feeding sessions.

While these participants did explain strategies for minimizing the more extreme experiences, they expressed a unique vulnerability as a new mom exposed to guilt and unattainable expectations. Even if they ultimately identified opinions or posts them as unrealistic, it still caused a negative emotional reaction for them and made them question their choices and abilities. **Mom Guilt.** Whether they were experiencing mom shaming personally or witnessed it in others, they were particularly sensitive to criticism and guilt online. These new moms expressed that they already felt judged enough by themselves, and they were sensitive to not adding a toxic online dialogue. Susie said,

Life's hard enough as it is without the judgments of everybody else. It's like, as a mom, you're constantly already worried, "Am I doing the right thing? Am I being a good mom? Is my baby acting correctly? Am I missing something?"

Wendy explained, "I do feel bad for other people. My worst thing was when I couldn't breastfeed, I got really depressed, like I was starting out I was a bad mom is what it felt like." She went on to attribute that in part to the social stigma surrounding bottle feeding that she described seeing in online SNSs. Wendy said, "it had to be though, right, because how would I have known that that's frowned upon if I hadn't seen it so much?" Societal expectations that do not match the reality for all participants can put pressure on all new mothers to attain a certain standard, whether it was body image or infant feeding methods. Nola said, "I definitely feel like there's some pressure. As soon as you have your baby you're supposed to bounce back and get going again and be active and get your body back right off the ... as quickly as possible."

For first participants in this early postpartum time period, polarizing opinions on SNSs appeared to hinder their maternal transition because it made them question themselves and their choices rather than offering a safe space to explore which infant and maternal choices were the right fit for their family and circumstances. Some of the most polarizing topics are experiences first-time mothers are navigating right away in the

postpartum period. Navigating so many opinions that were often divided into two distinct groups with ardent advocates appeared to be confusing and frustrating to these mothers as they were struggling to meet personal and social expectations. Two examples of commonly polarizing topics include the breast vs. bottle-feeding vs. fed is best, or to sleep training methods like attachment parenting or crying-it-out. Laura expressed this conundrum well:

But there's also so much, like, extreme stuff. I don't know if you've experienced this, too, but there'll be, like, people who are like, oh, you have to sleep-train your baby. No, never sleep-train your baby. It's like people have very, very polarizing viewpoints, which can be confusing because it's just a lot of advice from people who aren't necessarily doctors or professionals, they're just kind of, like, other moms.

The participants described a range of reactions to negativity online that ranged from simple frustration to shame and sadness they attributed to internalizing toxic and judgmental opinions online. Stacey's reaction was on the milder end of the spectrum. Stacey said, "Because if there's a bunch of people talking about how horrible something is, it doesn't necessarily make me have a negative response, but sometimes it's frustrating." Participants had to do a lot of sorting and navigating to process their reactions to posts that they ultimately deemed as unhelpful. Carleigh explained,

... there is a lot of negatives on there too, people get nasty, and judgy, and really like, "Well, according to the sleep procedures, that's not safe sleep." Just sometimes the tone of people's responses have been nasty ... not to me, personally, but just reviewing them.

Laura's experiences provoked a deeper emotional reaction and consequently forced her to question her choices in a way that was not productive. Laura said,

... this is the way, and every other way is wrong, it makes ... yeah, it makes me have this icky feeling inside, because it's like they're telling me what I'm doing is wrong, which logically I know is not true, but it doesn't leave a good emotional ... it doesn't leave good emotions, I guess you could say. It makes me question the way that I'm parenting, which I don't want something that I'm looking at for entertainment and for information to do.

Similarly, Marta described feeling frustrated because her experiences did not match or meet what she felt was expressed as the normal or standard experience. She described her experience with her milk supply. Marta felt both frustrated and bewildered,

It's frustrating. Yeah. It's like, "What am I doing wrong?" I've got all the boosting stuff; I'm following the schedule, but I'm not saving any milk for when I go back to work. There's times when my baby still seems hungry, and I've had to supplement. I was like, "Nowhere on here is anybody supplementing; everybody has an abundance of milk. Hmm."

These participants were actively experiencing many new challenges for the first time. However, in their quest for reliable information and positive support online, the tradeoff is that they are exposed to toxic opinions and conflicting positions that are inevitable on SNSs. Undermining their developing new-mother confidence is a hindrance from SNSs that has varying implications.

# Strategies for Management of Online Negativity. The overall impression from

the collective experiences of these participants was that they had a high degree of understanding of the limitations of online interactions and proficiency in navigating away from sources that did not support their maternal transition. One participant credited this to growing up with social media and her knowledge of an awareness of how to best utilize it. Tina explained, "I feel like I've intentionally built the following or the people I follow to serve that purpose rather than like ... I don't go on it to get stressed out." Being intentional about boundaries and recognizing the limitations, and being strategic about who to follow or even unfollow were common actions participants described in helping to harness the power of SNSs as a safe and supportive network to the extent possible. Tina went on to explain, "I feel like I kind of compartmentalize it like, 'That's crazy. That's not real world.' And I just ignore it if it doesn't fit, I don't know, if it's not serving, if it's not like a positive or whatever, because I'm like, 'Eh.' I don't know. It's all so crazy ..." Negativity will continue to perpetuate in online forums where a plethora of opinions and experiences come together but limiting interactions, unfollowing certain groups or users, were easy ways to reduce exposure as well as recognizing that not all opinions serve new mom needs.

Another strategy for managing the overwhelming number of responses and opinions was being strategic about where participants sought advice. Carleigh explained,

It kind of feels like it would be exhausting because they do get a lot of responses, and I just don't want to ... If I really had something, I really needed input on, I have local mom groups that I'm also part of on Facebook, that I would do it there instead.

Wendy expressed something similar but provided more detail about her emotional reaction to perfection being perpetuated online. Wendy explained,

I try not to ever follow perfect people. You know what I mean? You know what I mean, like, that appear to be perfect all the time. But sometimes when something pops up that is some hot chic and she's six weeks postpartum and already looks like she has a six-pack, I'm like, "Ugh. Get out of here. I can't deal with this." Because sometimes when you're scrolling and it's Instagram suggestions, things'll pop up. Like, the other day it was someone talking trash about bottle and breastfeeding. God, people have such opinions about this. I feel like that's negative. Not just to me but just in general. Get your baby fed. Why are you so mean to each other? Or formula, people are horrible about mom's that formula feed. Like, "She's feeding her baby." Some people have no choice too, why are you so mean?

The impact of these negative interactions was a decrease in online interactions.

The judgment these women witnessed online was an identified reason for first-time

moms not posting pictures or asking questions. Carleigh explained,

I think that's part of the reason why some of the times I don't post too because I just don't want to put myself up for scrutiny. A lot of times, people will put posts of ... In the SNOO Mamas, for example, they'll post a picture of their baby in the SNOO, and there will be comments like, "He's not in right," or, "You shouldn't have a pacifier. It's a bad habit," or things like that, kind of negative, judgy situation. I've kind of avoided that.

Wendy similarly was deliberate in choosing not to be a part of the negative

conversations. She said,

I'm understanding this whole mom-shaming thing and no matter what someone posts, there's someone in the comments that are giving them a hard time for it. And I don't want to be a part of that. Even if it is something like the way I choose to do a thing might not be the way this person's doing it, but so, they can do whatever they want. I don't need to tell them I don't think it's right. And what's it going to change?

New mothers have a valuable perspective, but according to these participants, the quality of the environment is important in facilitating their interaction. Many online SNS groups have moderators that also serve to help keep the group forums positive and productive. Susie expressed an appreciation of that. The negativity and judgment are inevitable online, but by being in a group with a common objective, the moderators worked to help keep the online spaces safe spaces for expression and support. Susie explained,

In general, most of it's pretty supportive. The people who manage the pages are really good about getting rid of all the negative stuff really fast. Like, "Hey, this is here for support, not to tear people down." It says in the little page rules, "If you can't be supportive, you get a couple tries and then we're just going to delete you from the page, because that's not what we're here for."

Several of the participants used the popular adage, "take it with a grain of salt," to sum up their perspective on how to manage negative stereotypes and information online. Being savvy and lifelong users of SNSs was perhaps an advantage as many expressed their ability to rationalize the need to keep things in perspective before reacting to opinions and advice posted on SNSs. Perhaps the ability to learn to take and leave information was helpful in their maternal transition as mothers were able to feel more confident in determining which information to use and how as they progressed in their matrescence, a maternal developmental transition. Laura said, "I think there can be a lot of judgment, and I think with motherhood and parenting, it's kind of rampant on social media in general, but I would say you have to take everything with a grain of salt." The ability to do that, though, appears to depend on maternal confidence; though it usually is on an upward trajectory throughout early motherhood, it can be stymied as women attempt to seek validation and reassurance online.

## Conclusion

The early postpartum period is a time with myriad questions and circumstances that were unique for first-time mothers. Four themes were constructed based on the data and were described here to answer the three research questions that guided this study. The participants in this study were in the early part of their postpartum maternal transition, and though they were high users of SNSs, and expressed a deep desire and drive for information, their online presence is largely invisible. This was reflected in their one-way use of consuming the already posted information rather than actively posting and commenting frequently. Participants augmented their existing SNSs to gain both informational and emotional support through accessing large networks of fellow moms either in groups or as individuals online. Their overall experience with online SNSs was positive, and for them, it made early motherhood easier. Their online interactions were not without negative associations; they had to navigate the inevitable mom-shaming and polarizing opinions online. Exposure to undesirable interactions online did not appear to hinder their maternal transition in the long term, in part because many described successful strategies for managing the negativity. The overall response was positive because of the unique sense of online community and reassurance SNSs provided, which mitigated during a time when isolation as a new mother was heightened due to COVID-19. The impact of SNS access during a pandemic appears to have had a positive impact on these participants.

# **CHAPTER V**

#### DISCUSSION

The purpose of this study was to describe first-time mother's experiences with online social networking sites (SNS) in the early postpartum time period (4-12 weeks following delivery), to explore how these mothers use SNSs to gain support, and to assess if SNSs were helpful or not in their overall maternal role transition. This chapter provides a discussion of the study findings. Following the discussion of these findings, implications for nursing education, practice, and recommendations for future research are reviewed. This study offered an opportunity for first-time mothers to share their experiences with virtual social networking, and their interviews offered some tangible examples of what these new mothers wanted and needed in the early time frame from online SNSs. Much of what these mothers described is consistent with existing literature; however, several important new findings contribute to the theoretical and practical understanding of first-time mother's experiences with online SNSs.

Many of the findings in this study confirmed what has been expressed in existing academic research. As we know, mothers are incredibly active users of online SNSs (Baker & Yang, 2018; Logsdon et al., 2014). The mothers in this study appreciated the convenience of quick and easily available information online (Aston et al., 2018; Guerra-Reyes et al., 2016) as well as access to a large network of fellow mothers (Nolan et al., 2015). A major function of SNSs is to fulfill socialization and informational needs in a

convenient and private way (Baker & Yang, 2018). Access to groups in which intimate or sensitive topics were discussed online was very valuable (Alianmoghaddam et al., 2019; Lupton, 2016) as they offered a safe space for mothers to have access to this content while being provided with some degree of anonymity (Teaford et al., 2019). The source of the information was also of great importance; similar to the findings of Nolan et al. (2015), these participants expressed that access to a large motherhood collective available online 24 hours a day, 7 days a week (24/7) was convenient to their 24/7 infant care schedule and that they were able to use it for both information gathering on demand and camaraderie. A connection with fellow mothers, or peer-to-peer support, helped them to feel less alone and a part of something bigger, while access to information empowered them to actively problem-solve their individual maternal concerns.

#### **Purpose of Maternal Online SNS Use**

The general purposes of maternal online SNSs identified in the literature were confirmed in this study. Online SNSs have been described as places for distraction and entertainment (Archer & Kao, 2018; Teaford et al., 2019), peer support (Lupton, 2016), an alternative form of supplemental personal support (McDaniel et al., 2012), as an outlet for credible support and information (Archer & Kao, 2018; Aston et al., 2018), and as a way to lessen feelings of isolation (Archer & Kao, 2018; Mulcahy et al., 2015). Similarly, the mothers in this study reported using online SNSs for the same reasons though these participants specifically indicated that their primary uses were for information, entertainment, emotional support, and camaraderie. This indicates that online SNSs continue to be readily utilized by mothers, and this study offers further knowledge about

how first-time mothers repurpose their existing online social networks (Sundstrom, 2016) for a more specific focus which they transition and work on as part of the ongoing development of their maternal identity.

Though existing literature indicates that virtual SNSs offer increased access to groups of mothers which can serve to reduce isolation (Mulcahy et al., 2015), this study deepens an understanding of how valuable this group access can be. The value was related to the ease of use for first-time mothers to access *low maintenance* relationships with *fellow* mothers within closed groups organized by topics. While the relationships the participants described were informal and not deeply fulfilling, this was part of the appeal in that these required minimal upkeep. They offered a constant source of information and camaraderie that could be tapped into when desired, even without active posting or commenting. A few participants described how some of their online group interactions led to actual friendships; they explained how they connected with either a local fellow mother or developed an online friendship with a peer who had similar experiences related to motherhood.

#### Value of SNSs for Mothers

Lupton's (2016) research indicated that pregnant women and mothers highly valued the advice and information from online sources. Lupton (2016) detailed the most important characteristics of online access for the sample of first-time mothers included: immediate, regular, detailed, entertaining, unbiased, customized, practical, and reassuring. Similarly, in this study, immediate access with regularly refreshed content, specific and detailed instructions in manageable chunks, and the ability to find customized advice relative to them were all features described by study participants. The capacity to access practical tips and tricks and to be reassured by peers in an unbiased way was important to these participants. The participants in this study expressed that SNSs made motherhood easier for them. They described feeling more confident by being able to independently review information from a variety of maternal perspectives found online and then decide on an individual course of action. They found value in the overall exposure to curated, relevant content in their SNS feeds, and they indicated that it helped them to stay informed and prepared. Their ability to follow groups with a focus that resonated with them personally, or to follow individuals whose perspectives they appreciated, allowed them to create a customizable network that appeared to aid in increasing their overall confidence, which in turn supported their maternal transition.

# Augmenting Existing Social Networks

Family, friends, and in-person social networks have been shown to be helpful, yet they cannot fulfill all support needs that first-time moms express (Lupton, 2016). The participants in this study explained how their own personal support networks, such as family, friends, or providers, were helpful but also included examples of how SNSs fit a unique niche in their lives. It appears that SNSs allowed them to function more independently and were complementary to their existing support networks. This is consistent with Price et al.'s (2018) study that found traditional sources of support were not preferred. This may represent a shift in what is traditionally considered predominant sources of support as room is made to include online SNSs.

# **Source of Support**

Previous literature has described online SNS use for mothers as a complementary form of support (Logsdon et al., 2014), yet these new mothers, in their descriptions of behaviors and patterns online, indicated that it might play a more important role in their early maternal experience than previously recognized. For many first-time mothers, SNSs were a starting point to access general information and an introduction to elemental new mom topics. The participants in this study described regularly using Facebook groups and Instagram as an initial access point for information and as a way to maintain ongoing access. Aston et al. (2018) found that online information searching was done until participants felt they had collected enough information to make their own decisions. The women in this study also described the use of online SNSs as ongoing and seemed to appreciate the constant access to a variety of experiences and types of advice. The ability to specifically search by topic as well as having general helpful information coming up on their feeds worked in two ways: (a) to give them a repository of accessible information, and (b) provided passive exposure to relevant content that refreshed regularly in their feeds based on who they followed and what groups they had joined.

While the use of SNSs was described as a way to access information to make practical decisions about topics such as daycare locations or types of bottles, for example, it also fulfilled a bigger purpose. As these new moms were still formulating their maternal habits and further developing a maternal identity, theirs was an experience of slowly absorbing information. The accumulation of information and ongoing exposure to the maternal collective online was a major piece of why they remained engaged online. It

appeared that online SNSs helped them feel a part of the motherhood collective and offered a convenient point of access that was formative to their ongoing maternal transition.

# Peers or Healthcare Provider

Previous literature had described that mothers utilized online SNSs as a way to access types of information not routinely or adequately covered in the office settings, such as the resumption of sexual activity, maternal anxiety, infant care, feeding and temperament, and generally juggling new responsibilities as a mother (Aston et al., 2018). The participants in a study by Aston et al. (2018) and Price et al. (2018) indicated that participants found much support from fellow mothers or peers and indicated a strong preference for peers as a source of information and support. In the current study, participants differentiated how they decided between using online SNSs to access their peer network or seeking advice from a Health Care Professional (HCP). They described a unique self-triage approach about who they went to and for what purpose. These new findings are complementary in that first-time mothers needed access to a large pool of people experiencing what they were experiencing simultaneously, which is referred to here as a parallel experience, and while they respected HCPs for their expertise, they reserved contacting them only for urgent health matters or to confirm a more serious medical or healthcare question that they had first reviewed on SNSs.

The participants in this study practiced information triage. Common concerns and daily questions were relegated to the SNSs for initial answers, similar to a brainstorming exercise. Participants described that the majority of their daily queries were not topics

requiring professional input and felt that they could use SNSs to hear a multitude of tips and tricks and be exposed to general advice. They explained that they could then discuss the new information with their provider if they needed professional input. Medical hierarchy has been described as inaccessible and unsupportive for many maternal needs that do not fall neatly into the healthcare category (Aston et al., 2018). The participants in this study demonstrated the ability to recognize and discern who to contact and for what purpose. Often participants indicated they appreciated hearing from nurses who were posting either as professionals or as fellow mothers. Nurses educational training provided credibility for the information; awareness of this is important in considering future implications for the nurse's role on SNSs. The motherhood collective available on SNSs was able to serve many of their unique needs in this period and was available to them around the clock.

Online SNSs offered a form of empowerment for first-time mothers. Similar to the findings of Price et al. (2018), these participants appreciated non-hierarchal sources that offered a knowing sense of peer support and practical advice. Aston et al.'s (2018) findings of how first-time mothers sought out specific information that validated their experiences challenged the social beliefs that first-time mothers are "simply 'in need' of information and support because they are 'unknowing' or 'unexperienced'" (p. 646). Similarly, these first-time mothers, while they described themselves as unlikely to share advice due to lack of experience, were readily able to detect positive and supportive online environments that served to augment their online network and ultimately support their personalized needs. They described themselves as feeling capable of sourcing

information, although this appeared to be related to how many weeks postpartum they were. As their confidence appeared to grow, they became more comfortable dismissing information over the time elapsed since birth.

The importance of a variety of perspectives (Lupton, 2016) that mothers could compare and contrast in order to decide for personal applications, and as a way to compare with traditional medical dialogue (Aston et al., 2018) was echoed in the findings of this study. Participants were able to discern and analyze information in the same manner described by Sundstrom (2016) as they "cross-checked" or would "weedthrough" content (p. 98). This allowed them to hear and compare multiple perspectives, which helped acknowledge both the communal yet highly individualized experience of motherhood. Mothers in this study often used their access to online motherhood collectives as a distinct way to collect tips and tricks for practical applications in caring for their infants. These topics, ranging from diet, exercise, choice of provider, product recommendation, swaddling techniques, etc., were of great interest and importance to new mothers that are often expressed socially rather than with healthcare providers (Price et al., 2018). The opportunity for nurses to bridge social discourse with medical or healthcare discourse is highlighted here as a possible future intervention within online SNSs.

Though peer support, advice, and encouragement were incredibly important to new mothers, they also differentiated how and when they would use SNSs as a springboard for further conversation or advice from an HCP. These findings build on existing literature. Sundstrom (2016) found that seeing questions and discussions on

SNSs related to a specific health concern offered a way to "question the expert" advice related to things like milk supply or co-sleeping. Participants would often use information they found in Facebook groups as a starting point. They described how they would then "google" it before bringing up their health question with their healthcare provider so that they could be more educated on the topic and have a better discussion. This type of critical analysis of information online as a precursor to HCP discussions has also been described by Aston et al. (2018). There is a plethora of polarizing positions discussed on SNSs, some of which are also promoted by traditional healthcare, and a range of experiences from mothers offers relevant context that was seen as supportive for mothers who had reason to deviate from the social or healthcare advice. Nurses should take note of the impact of these polarizing perspectives and continue to work on realistic ways to promote appropriate standards while acknowledging and honoring the individual struggles and choices of mothers.

#### **Negativity Online**

It is generally acknowledged that online social media sites are notorious for facilitating an environment conducive to judgmental behaviors and one that perpetuates unrealistic stereotypes. Archer and Kao (2018) described several downsides of Facebook, including its addictive quality and how it can contribute to both depression and anxiety in mothers. Questions of realism and media portrayals in the postpartum period have been described as reflecting only a "narrow range of appearance experiences that did not represent the variations that they [mothers] saw in their own social networks" (Liechty et al., 2018, p. 854). The new mothers in this study were particularly sensitive to these

phenomena and shared personal examples of how it negatively impacted them to feel judged and incapable of meeting certain standards (realistic or not), which were perpetuated online that, in turn, increased feelings of anxiety and depression. Many of the mothers described their experiences with depression, shame, and anxiety, though the degree to which this impacted them varied. Although some participants identified themselves as less impacted by the presence of online negativity, most recognized that it existed and indicated that they internalized it to some degree because it impacted their parenting and self-care decisions. The notion of superficial online self-representation and its impact on maternal self-esteem and, in turn, on their own self-presentation online has also been described by Djafarova and Trofimenko (2017).

Examples of in-shape postpartum bodies, 'adequate' milk production, and looking like one was keeping it all together were the most commonly referenced distortions of motherhood that perpetuated unachievable or unrealistic outcomes that the mothers in this study described. This was similar to the findings by Liechty et al. (2018), who found that misrepresentation, stereotypes, and judgment were common online; those participants desired social messaging that provided a more realistic representation. Mothers in this study also indicated that they valued realistic examples of how messy new motherhood was and postings about how any body is beautiful because it reframed the expectation and provided more leeway to be successful.

#### **Becoming a Mother**

While Aston et al. (2018) found that mothers wanted to both receive and give support in the online environment, this study found that first-time mothers were sensitive

to their novice status. These participants indicated that they were very unlikely to interact by posting or commenting online in groups or to individuals they followed outside of their personal network of friends and family. As first-time mothers, the study participants indicated that though they felt too inexperienced to offer advice or expertise, and preferred to access the collective information available to them on SNSs. In fact, they demonstrated heavily relying on SNSs as an informational and emotional support source.

Mercer's Becoming a Mother (BAM) Theory describes four stages that mothers progress through during their maternal transition, and the mothers in this study fell into the third stage, *approaching normalization*. In this temporal stage of BAM Theory, Mercer suggests that the mother is working on role differentiation and demonstrates a move away from rigidly adhering to advice to an adaptive approach that increasingly relies on the development of her own maternal judgment to make decisions (Mercer, 2004). The participants in this study were actively seeking out parallel experiences and maternal wisdom both to help gauge where they were in their maternal transition, although they did not specifically articulate it as "maternal transition," and also to help support themselves with the tools they needed but could not get elsewhere. In this small sample, the earlier they were in the postpartum period, the more likely they were to express concerns about their ability to follow instructions and meet their (or societal) expectations. However, as they progressed in their postpartum journey, they demonstrated more comfort in discerning and selecting which pieces of information or types of support they could use while dismissing irrelevant or unhelpful ones. Their actions in the early postpartum period evolved with time, as seen in the context of the

BAM Theory. These participants were actively taking in and processing much of the information and advice, working towards ultimately reaching integration of the maternal identity, Mercer's fourth stage, though none of them had yet reached that stage (Meighan, 2013). It became apparent, even in this small sample, that over time they became more comfortable articulating and defending their positions or choices, which lead to increased confidence. For nurses, these findings reiterate BAM's theoretical assumptions and serve as a reminder of the continued relevance of this theory in its application to the fourth trimester.

## **Invisible Footprint**

Though the literature acknowledges that mothers are highly active users of online SNSs (Baker & Yang, 2018), it appears that for first-time moms in this study, their virtual footprint is largely invisible because although they are aggressively accessing the content, they rarely post or comment. While some first-time mothers may pose questions and post advice on SNSs (Aston et al., 2018), there may be many other mothers, like those in this sample, who are utilizing the already posted content without leaving a virtual footprint. This invisible nature of user access has not been noted elsewhere in the literature for maternal online interactions. This could indicate that though SNSs are not considered a traditional form of information gathering, its highly accessible and customizable nature is being used to a higher degree than previously recognized, particularly for first-time mothers. It is also likely related to the early postpartum time frame utilized for this study.

# Hunger

The majority of study participants described themselves as avid users of online SNSs; they described a ravenousness for continual content and access to online support, both informational and emotional, that has not been previously noted. They shared a strong desire, like a hunger, for more content, particularly which was relevant to their developing maternal identity. The relatable content was ideally refreshed frequently on their feed and presented in manageable bite-sized chunks. Infographics with a combination of visuals and specific directions were noted by many as ideal, and reels, i.e., short videos explaining or demonstrating something, were also popular. It was a unique finding to this study just how intent first-time mothers were on inundating themselves with content and experiences, as well as how adept they were at curating their networks to surround themselves with online groups or influential individuals that resonated with their values and identities. By increasing who they followed to a variety of specific groups, organizations, and individuals on Facebook and Instagram, mothers customized their feeds with a blend of mom and infant-related educational content, humor, and support. This allowed them to have refreshed and relevant content during their frequent SNS log-ins.

# The New Normal, A Spectrum

Though motherhood is a universally acknowledged experience, there are tremendous social, cultural, and personal variations. The participants in this study repeatedly expressed surprise at the difficulty they experienced in the postpartum period and the unpreparedness they felt, despite their attempts (formal or informal) to prepare.

To help them, they described how they harnessed the power of online SNSs. This indicated that a central element in easing their maternal transition was access to the wide range of experiences that are uniquely available through SNSs. Aston et al. (2018) identified a theme titled Maternal Knowing: Normalization and Intuition, which described both the social construction of the desire to feel normal and how important the validation of their experiences was from a variety of sources. This study's findings build on Aston et al.'s (2018) research by introducing the concept of the spectrum of normal that these first-time mothers described as they attempted to understand and adapt to their new maternal reality. For these participants, engaging in SNSs offered not just as an occasional reorientation, it was even being applied much more frequently, even hourly. The frequent check-ins on SNSs provided mothers a range of perspectives, which they then used to compare and interpret their own similar or different experiences. This appeared to serve as a frequent and valuable source of orientation not just to a new normal but to a new rhythm of life.

#### COVID-19

The early postpartum period is commonly a time of increased isolation, but for the mothers in this study, isolation was heightened by nationwide social distancing mandates. The impact of the COVID-19 pandemic on these participants' experiences cannot be overstated, as all of the mothers in this study were newly pregnant during February and March of 2020. Their entire pregnancy and postpartum periods were experienced while maintaining social isolation and distancing standards. Many described how their prenatal and postpartum appointments were conducted virtually rather than in person. Postpartum

"Mommy and Me" type classes or play dates were not possible, and each of these mothers expressed the importance of online camaraderie that offered a source of peer interactions in the postpartum period which served to buffer the heightened isolation they experienced.

It is impossible to detangle the influence that the COVID-19 pandemic had on the study findings. Every participant expressed in some way how COVID-19 impacted their maternal experience. Most of the participants in this study did not have paid professional support following delivery (e.g., Lactation consultant or a postpartum doula), and like most women in the U.S., they had one traditional postpartum appointment with their delivery provider between 2 and 6 weeks postpartum. A few sought out professional virtual or in-person lactation support or had postpartum doulas to support their individual needs. Participants expressed that, because of COVID-19, they had to rely on SNSs more than they would have otherwise for information, entertainment, and support.

## **Strategies for Management of Online Negativity**

The negative associations with online networking sites for new mothers have been noted in the literature. What was unique to this study was the adeptness at which these mothers seemed to identify misrepresentations or negative posturing online, how they recognized it for what it was, and how they worked to mitigate that negativity. Members of the online social networking groups appreciated and relied on group moderators to enforce the rules, particularly when negative behaviors impeded effective group dynamics. Many of the mothers expressed how they were selective of specific groups and individuals to follow in the first place so that what they saw on their feeds then offered a

more truthful or accurate reflection of motherhood as well as represented their own values or interests.

Several women explained how posts in large groups or by individual influencers could be frustrating and anxiety-producing. For moms in the earlier half of the postpartum period, they were more sensitive to their ability to meet expectations because they were still trying to get oriented to their new role. The farther along in the postpartum period they were, the more comfortable they felt to ignore or dismiss that type of rhetoric. These new mothers were surprised by how polarizing some of the conversations around COVID-19 vaccination during pregnancy or while lactating, social distancing adherence, infant nutrition, body image, and infant could be, and many of them internalized this as a form of mom guilt. However, they also described becoming more adept at navigating the online environment to see less of what was unhelpful and more of what catered to their individual maternal needs and their own personal value systems.

Perhaps because these mothers were mostly Millennials and self-described as being aware of the downsides of online networking, they were not surprised by the potential for misrepresentations or shaming online. They were well-versed in describing strategies to reduce their exposure by unfollowing or weeding through the negative posts to minimize personal impact. They articulated that they understood the power of SNSs and, for the most part, were able to curate it into an environment that was more supportive than it was negative, although some used it more than others.

## **Transitions Theory**

Meleis's Transitions Theory was a helpful framework for this study and was used to aid in answering the third research question based on my data. According to Meleis's Transitions Theory, there are four process indicators that move clients towards or away from the direction of health. The participants in this study described actions that indicated that SNSs primarily aided in their maternal role transition. Many participants described several early maternal behaviors through the use of SNSs that can be categorized as process indicators and functioned in turn as transition conditions indicating a healthy transition (Meleis et al., 2000).

Participants expressed highly valuing *feeling connected* to a larger community of mothers, simultaneously sharing their experiences of early motherhood within a virtual landscape. Feeling connected was demonstrated by how mothers felt a part of something larger; SNSs offered access to a motherhood collective that supported their own developing maternal identity. The importance of feeling connected despite heightened isolation to an online community of mothers is unique. This represents an important element of involvement for nurses on SNSs who can connect mothers to these resources.

The second process indicator, *interacting*, is a dynamic activity that is relationship-based and involves output as well as input. Interacting was demonstrated in a more passive form in this early postpartum stage (Meleis et al., 2000). Perhaps their novice motherhood status made them feel less capable of engaging in online interactions by posting or commenting, but they appreciated the ability to passively access the collective interactions available online. While the majority of the participants indicated

they did not post questions or comments frequently, they did actively search, follow, and read postings that impacted their self and infant care decisions. Additionally, some interactions were negative and caused them to question themselves, and could have implications for nurses to recognize the ability of SNSs to both aid and hinder MRT and offer supportive and moderated informational-based information that does not require active interaction.

According to transitions theory, when individuals *situate* themselves relative to time, space, and circumstances, this is a positive indicator of a successful transition. Participants in this study used SNSs to compare and contrast their experiences with those around them and located themselves on the spectrum of the new normal of motherhood (Meleis et al., 2000). The ability for first-time mothers to orient themselves to a new experience through their own independent means was of tremendous value as it was reported to provide a sense of reassurance about their new normal. These mothers demonstrated situating themselves by curating their feeds and augmenting their existing social networks.

*Developing Confidence and Coping* is the fourth process indicator and described as a progressive adaptation and increase in confidence and coping with challenges over time (Meleis et al., 2000). SNSs were described as one way for participants to feel more confident; it offered access to information and emotional support that facilitated participants coping with challenges either emotional or of a more practical nature in the early postpartum period. Participants used tips and tricks to cope with challenges and develop confidence through success with this and because they were supported by the

camaraderie of moms supporting moms. This allowed them to feel more confident in their functional role, and this appeared to improve as the postpartum period progressed.

## Trustworthiness

Several techniques were utilized to enhance the trustworthiness of this study, according to Lincoln and Guba's (1985) criteria and guided by examples of these criteria in TA as described by Nowell et al. (2017). Credibility was enhanced by prolonged engagement and persistent observation by the PI of a multitude of public and private mom groups on Facebook and following maternal influencers on Instagram. This was done to increase familiarity with the online culture and context of interactions between moms using SNS. It encouraged PI reflexivity to remain exposed to multiple perspectives and experiences of maternal SNS experiences in general rather than following participants' actions online as the potential altering online interactions increases with researcher involvement (Johnson et al., 2020). Transferability was facilitated by offering rich descriptions of the sample, circumstances, and context that surrounded this study. Dependability was strengthened by having experienced qualitative researchers co-review the research process and products of analysis. The use of field notes serves as a written audit trail to enhance study confirmability.

## **Implications for Nursing Education and Practice**

Nurses are often in a position to guide and support new mothers, and much of what was learned in this study can be added to their toolbox. Providing recommendations to both local and national groups on Facebook, as well as reputable and influential individuals on Instagram, could help mothers connect earlier to relevant sources of information and support. Nurses can be prepared to offer recommendations customized to their patients. For example, to help a first-time breastfeeding mom who is planning to return to work, who identifies as Black, and is living in North Carolina, guidance finding online SNS groups relevant to her includes but is not limited to Breastfeeding Support & Beyond, New Moms Breast-feeding & Support Group, or Black Moms of the Carolinas. Because mothers appreciated access to both larger national SNS groups as well as smaller, local groups, nurse familiarity with existing online SNSs groups and influencers is beneficial.

Nurses also need to be well versed in recognizing mom guilt and shaming on SNSs and consider ways of offering more accurate information or perspectives. Nurses and nursing organizations or healthcare organizations can increase awareness of how vulnerable new moms are to strong position statements related to infant feeding or other early issues in the postpartum period. Mothers are looking for posts and comments that validate and support their experience. Targeted professional messaging, whether in groups by fellow nurses, should be supportive of the experience and honor the journey. Nurses serve as a respected source of health information and advice; however, care should be taken to present it in a way that honors individual maternal journeys. The participants highly valued the perspective of their peers; communicating with first-time mothers at discharge about how to identify relevant groups or reputable influencers on SNSs could give some moms a head start in accessing relevant online content.

Nurses are a part of one of the most trusted professions and often serve as a bridge between the dominant discourse and patient experience. Because participants found

nurses as credible, there are opportunities for nurses to take on larger roles on social networking platforms. Participants appreciated direct, concise information, infographics, and informational videos. Nurses have clinical and research training and are in a prime position to create relevant and evidence-based content to offer another source of reliable information in the early postpartum period.

Fourth-Trimester revisions are underway but still have a continued need for nursing input. As decisions are made about the types of support women need in the early PP, and what health care providers are best suited to provide these, maternal child nurses can advocate professionally for a larger role. Women really valued connections with other mothers, and supporting that connection either in person or online is important. As respected sources of information, nurses can also be staffed at locations new mothers are already visiting. Integrating maternal nursing assessment and education at pediatricians' offices would reduce the burden of visits and cluster care. Additionally, as we know that virtual and time-sensitive access to information is highly valued, offering nurse-based telehealth is another opportunity for future research and development. Rather than siloed services like lactation, PPD screening, BP checks, and infant care techniques, maternal nurses could train specifically to support the needs of women in the early PP period, whether in person or online.

#### Limitations and Recommendations for Future Research

A limitation of this study is the small sample of predominantly White women who make up only 51% of mothers nationally (CDC, 2021). However, Braun and Clarke (2013) do recommend a small homogonous sample as a pragmatic consideration in Thematic Analysis. Future researchers should still seek to include a larger sample with greater racial diversity and variety in cultural backgrounds. There is a risk of selection bias due to the recruitment method through the researcher's personal online SNS accounts. However, given the widespread sharing habits online, the need to have a personal account in order to access online SNSs, and the understanding of the researcher as an instrument in qualitative research, this technique felt appropriate. This study was qualitative and intended to explore experiences; however, future research should consider quantitative designs. Exploring the impact of the nurse's role in online SNSs, whether as individuals or as participants in groups, may provide further opportunities to provide access to information without impeding on the peer-to-peer support mothers desire. Continued research on the nuances of maternal transition in the early postpartum period is needed.

#### Conclusion

The findings of this study contribute to our overall understanding of experiences that first-time mothers have with online SNSs in the early postpartum period. The findings suggest that first-time mothers may have a much larger, though relatively invisible, virtual footprint than previously understood. They were adept and discerning users that felt capable of managing their online SNSs to minimize exposure to negativity and harness the power by curating a customized network of relevant groups and individuals that supported their own maternal transition. SNSs have the potential to both hinder and aid the maternal transition, but overall, these participants found SNSs an indispensable part of their maternal transition that help make motherhood easier and reduce the isolation they felt during the COVID-19 pandemic. These findings offer a unique perspective of first-time mothers in the early postpartum period and their experiences with SNSs, as well as implications for how nurses and other HCPs can better support first-time moms.

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### **APPENDIX A.**

### TRANSITIONS THEORETICAL MODEL

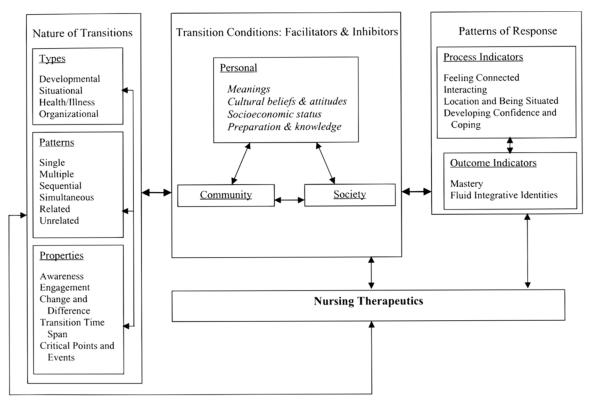


Fig 1. Transitions: a middle-range theory.

Note. Source: Meleis et al. (2000).

# **APPENDIX B.**

# **PRESENTATION OF STUDIES**

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
Alianmoghaddam, Phibbs, and Benn (2019) NZ	Explore the influence of social media on exclusive breastfeeding practice	Social constructionism (methodological framework). Strength of weak ties (Granovetter) and landscapes of care (Milligan & Wiles)	Qualitative, face- to-face in-depth interviews. Thematic analysis of interview transcripts.	Thirty new mothers, New Zealand, recruitment & screening for eligibility done during pregnancy, F2F interview done at 4-6 weeks (1 hour). F/u with short monthly phone calls (recorded).	Four major themes: a) Generation Y mothers need reliable online infant feeding info; b) smartphone apps can be a good option for promoting breastfeeding; c) weak ties among breastfeeding mothers on FB & other SMS facilitates the spread of information; d) utility of geographically distant infant feeding support via skype.
Archer and Kao (2018) Australia	Investigates the role of social media potentially as a mechanism for social support among Australian mothers of young children aged birth to 4 years.	None	Qualitative, thematic analysis	Focus Groups 10 (2 rural, eight urban).	Facebook is the predominant social media platform. Escape from boredom, contact with the outside world (keeping up with family & friends), miss out if not on FB, news and information, follow an organization, support and connection. Downsides:

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
Aston, Price, Monaghan, Sim, Hunter, and Little (2017) CA	How first-time mothers prioritized their own PP needs and where they went for information and support.	Feminist poststructuralism (FPS)	Qualitative, Discourse analysis. Group interviews (semi- structured interview guide, 60 min) & online electronic e- interviews	19 first-time mothers in 5 focus groups & 18 e- interviews Canada	addictive, related to depression, superficial, privacy concerns. Two themes: a) Navigating and negotiating different ways of knowing and needs; b) Medium is the message.
Baker and Yang (2018) U.S.	Explore the use of social medial among pregnant and postpartum women as a source of education and social support in the transition to the role of motherhood.	Rubin, Tasks of Pregnancy referenced but used as a framework	Quantitative, exploratory online survey	<i>N</i> =117, 30.6 age average, 37% primaparas.	Two primary uses of social media: information seeking and social support. The majority of mothers use SM to ask questions and solicit advice about pregnancy and parenting (89%) (p. 32). Facebook was the most commonly reported site (98.3%) (p. 32).
Djafarova and Trofimenko (2017) Russia	Explore the aspects and impact of self- presentation of mothers on social media (Facebook & Instagram) on their self-esteem.	None	Qualitative, content analysis	Qual. Content analysis of 23 popular Instagram profiles of mothers and 12 in-depth interviews with mothers.	Study discussed key patterns of social media by mothers, mothers' self- presentation on social media, the effect of this self-presentation on the self-esteem of mothers, and

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
					Facebook vs. Instagram use by mothers.
Guerra-Reyes, Christie, Prabhakar, Harris, and Siek (2016) U.S.	To assess low-income mothers' perceptions of their PP information needs; describe information- seeking behavior; &explore their use of mobile technology to meet those needs.	None	Qualitative, content analysis	In-depth interviews ( <i>N</i> =10)	Information needs: establishing breastfeeding, breastfeeding problems, general health & behavioral issues, and topics interviewees found difficult to discuss with HCPs. Used multiple information streams. Mobile app use and issues in pregnancy and postpartum
Liechty, Coyne, Collier, and Sharp (2018) U.S.	Explore women's perceptions of media and body image during the PP period.	Fredrickson's objectification theory	Qualitative, semi- structured in- depth interviews. Grounded theory approach.	N=50 pregnant (N=24) or PP women (N=26)	Four themes: a) participants questioned the realism of media depictions of pregnant and PP women; b) complex reactions to media messages; c) desired changes in media messages to be more realistic and depict a more complex portrayal of the life stage; d) unique and complex role of social media including both positive and negative impacts.
Logsdon, Bennett, Crutzen, Martin, Eckert, Robertson, Myers,	Identify patterns of social media and Internet use by adolescent mothers,	None	Quantitative, cross-sectional, descriptive survey	Adolescent mothers ages 13-18, two different groups: <i>N</i> =94, and at 1 year <i>N</i> =91	All adolescent mothers used a computer and went online. The majority of access was via cell phone

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
Tomasulo, Gregg, Barone, Lynch, and Flamini (2014) U.S.	how adolescent mothers obtain health information, and do adolescent mothers differ in preferred health resources and use of social media and Internet between immediately following birth and one year PP.				and used social media. Common searches were: contraception, STI, and HIV. The Internet as a source of information becomes more valuable later in the PP period. Internet is a valuable way of delivering health interventions to adolescent mothers. Cell phones are the primary way of accessing the Internet. Ensuring confidentiality is immortant!
Lupton (2016) Australia	How women use the diverse range of digital media now available to them and what types of information they value.	None	Qualitative, Inductive Thematic Analysis	Focus Groups (4) N= 36 pregnant or had given birth in past 3 years	important!Nine Characteristics:1. Immediate2. Regular3. Detailed4. Entertaining5. Customized6. Practical7. Professional8. Reassuring9. UnbiasedValue on multi- functionality, desire for more expert advice and support by HCPs
McDaniel, Coyne, and Holmes (2012) U.S.	Examine whether participation in blogging and social networking are	Bronfenbrenner's ecological theory	Quantitative, survey	N= 157	New mothers frequently use SM (3 hrs/day). Frequency of blogging positively predicted feelings of connection to

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
	associated with maternal well-being.				family and friends (p. 1515). Social networking was <i>not</i> associated with connectedness social support. Privacy concerns.
Mulcahy, Parry, and Glover (2015) CA	Investigate roles of online social networking in the development of social capital for mothers	None	Qualitative, Constant comparative	<i>N</i> =22, active interviews, Canadian	Inclusion criteria not noted. Three themes: a) I'm so alone (isolation); b) You're not alone (company, camaraderie, community); c) We're gonna get through this (improved mental health).
Nellsch, Walker, Xie, and Vaughn (2013) U.S.	To determine the website preferences of new mothers in order to design health resources distributed through the internet.	None	Descriptive Content Analysis (used two questions from a larger study)	<i>N</i> =145 new mothers of varying incomes and racial/ethnic groups	Mothers frequently chose social networking sites as their favorite websites, preceded by commercial search engines. Among their favorite attributes included the ability to interact with others, navigation, access, and use. Differences in site preference associated only with maternal age and not other demographic characteristics.
Nolan, Hedricks, Towell (2015) Australia	To explore SNSs by adolescent mothers in Western Australia in relation to social support and the	None	Qualitative, Narrative Inquiry	<i>N</i> =7 adolescent mothers, face-to-face, audiotaped, semi- structured interviews.	<ul> <li>Five themes:</li> <li>Social connectedness</li> <li>Increased parenting confidence</li> <li>Reduced parental stress</li> </ul>

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
	building of social capital.				<ul> <li>Enhanced self- disclosure</li> <li>Access to information Recommends harnessing the power of social media to improve health outcomes and meet adolescents in 'their space.'</li> </ul>
Price, Aston, Monaghan, Sim, Murphy, Etowa, Pickles, Hunter, & Little (2018) CA	To examine and understand how first- time mothers accessed support and information (online and offline) during the first 6 months of their PP period.	Feminist Poststructuralism guiding philosophy & methodology	Qualitative, Discourse analysis. Group interviews (semi- structured interview guide, 60 min) & online electronic e- interviews	19 first-time mothers in 5 focus groups & 18 e- interviews Canada	Two themes: Maternal Knowing, normalization & intuition and Emergence of personal knowing & social networks.
Sundstrom (2016) U.S.	To understand women's perceptions and use of new media, mass media, and interpersonal communication channels in relation to health issues.	Diffusions of innovations theory	Qualitative; constant comparison	Forty-four in-depth interviews (biological moms of newborns), semi-structured.	New communication channel with new rules, when women are accessed in different ways in online environments. Participants reported using: mass media, social networks, mobile applications, text messaging and email, the Internet, and community forums.
Teaford, McNiesh, and Goyal (2019) U.S.	To explore women's experiences with an online forum during the PP period	Non	Qualitative, content analysis	393 women answered three open-ended questions (drawn from a larger study r/t PPD).	Five main themes: social support, anonymity, in- groups, drama, and entertainment.

Citation	Study Purpose	Theoretical Framework	Study Design	Sample	Findings
Walker, Mackert, Ahn, Vaught, Sterling, Guy, and Hendrickson (2017) U.S.	To examine mothers' use and preferences of e-Health media and associated contextual factors	Uses & Gratification Framework	Quantitative, cross-sectional survey	165 mothers, stratified random sample.	Media uses ranged from health info searching, email, online magazines, socialization, and watching YouTube videos. More frequent use of YouTube correlated with lower maternal education, and more frequent searching correlated with fewer kids.

### **APPENDIX C.**

### **ELECTRONIC FLYER FOR ONLINE SNS RECRUITMENT**



G



Scan the QR code to directly email Gail Elliott for more information.

If you are interested in participating, please contact me at gmcounce@uncg.edu or 828.242.3692.

If you have any questions regarding the study, you can contact Dr. Susan Letvak, Dissertation Committee Chair at 336.256.1024.

version 6 | 12/08/20

### APPENDIX D.

## SCREENING TOOL FOR SAMPLING

Screening Tool for Sampling:

1<sup>st</sup> Determine Eligibility:

- 1. Age (> or = to 18 years): \_\_\_\_\_\_ *a. How old are you?*
- 2. First-time mom? Y/N*a.* Is this baby your first full-term delivery?
- 3. Date of delivery? (between 2-12 weeks PP) Y/N *a. What is your baby's birthday*?
- 4. Active user of social networking sites determined by membership (or accounts) and usage/week.
  - a. Eligible if participate has an account/membership in two or more social networking sites.
    - *i.* Tell me some of the SNS memberships/accounts you have?
    - *ii*. List of sites:
  - b. Eligible if participant accesses any accounts three or more times a week regardless of # of hours.
    - i. How many times a week would you say you access any of these accounts?
    - ii. List approximate amount of access/week:
- 5. Brief discussion about availability/dates.

**Exclusion criteria** were selected based on factors that could be reflective of more unique and specific experiences and detract from the general exploration of the topic. These would include mothers of adopted infants, preterm deliveries of 37 weeks' gestation or younger, actively mothering other children in the home (non-biological), history of neonatal admission to NICU for > 24 hours

# **APPENDIX E.**

# **DEMOGRAPHIC SHEET**

		Demog	graphic Data Sheet		
Pseudo	onym Name:			Date:	
Contac	et Phone Numbe	r:			
Age:					
Date of	Delivery:	Age of b	oaby in weeks at ti	me of interview:	
Ethnic/	Racial Identity	(circle)			
1. Nativ	ve American 2.	Latino 3. Ca	ucasian 4. Black	5. Asian/Pacific	
6. Other	r				
City &	State of Resider	ice:			
	tion (circle highe	st degree com	pleted)		
	/High School				
	ciates Degree				
4. Mast	alaureate Degree				
5. Doct					
<b>Did you</b> 1. 2.		tum birth servi	the following? (cir	cle all that apply)	
4.	Postpartum Supp	ort services			
Partne	red Status (circle	e)			
	Living with boyf		d/partner		
	Single	-	-		
3.	Married				

## **APPENDIX F.**

## **INTERVIEW SCRIPT**

### **Interview Script**

This interview	is being conducted with	 (pseudonym name).	Today's date
is	and the time is		

Thank you for taking the time to meet with me today. The purpose of this study is to understand *your* experiences with online social networking sites as a first-time mother. Online social networking for mothers provides a very unique avenue to connect mothers to support. A deeper understanding of your experiences with online social networking sites will offer insight for other mothers and for maternal child healthcare professionals. There are no right or wrong answers to these questions; your insight is valuable. If you are ready, I would like to begin the interview at this time. As you are answering the questions, feel free to add any other information about your experiences as well.

During the interview, I will record our discussion, and I will also be making notes on paper to keep my thoughts organized.

Do you have any questions? Let's begin. I would like to start by asking you some basic information by completing a demographic data sheet. If there is a question you do not want to answer, just say "skip question." What is your age? What is your baby's birth date? How many weeks is your baby? What is your race/ethnicity? What is your highest level of education? Did you participate in any prenatal or postnatal classes or services? If so, describe. What city and state do you live in? Who lives in the house with you, and what is their relationship to you?

Opening question: Tell me about how things are going at home with your baby?

1. Can you begin by describing how you are using social networking sites—as a

mom?

- a. Examples of social media sites include Facebook, Instagram, Twitter, etc.
- b. What sites?
- c. How often?
- d. For what purpose?

- 2. If you are a member of any specific mom groups online, tell me which ones and how you use them?
- 3. Can you describe for me if and how your experiences with social networking sites have changed since the birth of your baby?
- 4. Tell me about the impact of these online interactions on you as a mother?
  - a. Positive
  - b. Negative
- What features of the sites do you like, for example, closed groups, the ability to 'like' something, anonymity, discussion boards, DMs, scroll, chat, message boards.
- 6. Do you think that using SNSs have supported your transition as a new mother?
  - a. Hindered you?
  - b. Specific examples?
- 7. Do you think that using SNSs has supported you as you transition into your motherhood role?
  - a. Or hindered you?
  - b. Can you provide specific examples?
- 8. You have shared a lot of information with me today, and I thank you. As you think back over our conversation, is there anything else that you would like to tell me that would help me to understand the experiences you have as a new mother using online social networking?

This concludes the interview session. Thank you again for your time and for sharing your experience with me. If I may ask, can you think of a fellow new mother who uses online social networking sites and may meet the study's criteria and would be willing to speak with me?

### **APPENDIX G.**

## EXCERPT OF AUDIT TRAIL: THEME 1 WITH ASSOCIATED CODES AND ILLUSTRATIVE QUOTES

1. Habits				
1.1 The Invisible Footprint	<b>1.2 Passive Consumer</b>			
Unseen	Low maintenance			
No comment	Depersonalized			
Increased usage	Take it or leave it			
Recipient	On own time			
Exposure	Explore			
Not posting	Starting point			
Read/search	No commitment			
Hunger	Easy access			

### **1.1 Illustrative Quotes**

- The fact that I don't contribute anything, I do feel like it helps. Just me reading that other people are going through a similar experience helps. If I did need to vent, it's nice to have the option. (Marta)
- I would say in the beginning I was really just receiving it and I wasn't really participating. (Laura)
- I very rarely post my own posts unless there's something big that happened or if I have a question that I can't find an answer to that it's been asked previously. (Heather)
- So, I never really responded to anything or posted anything, but sometimes it was nice to read experiences that people were having. I try really hard not to compare too much, but obviously, it happens sometimes. (Stacey)
- I haven't been super active on them as far as me posting anything, but it has been interesting to see other people post their own questions and see the responses other people have. (Fiona)
- We watched it, we binged them like a show. It was all this information and insight and just her expertise (Wendy)
- I follow a lot more mom-related things than I used to since I had no reason to prior to now. So, like Home Grown Families, for example. I started following them on Instagram after I came across their birthing classes. And so I've gotten a lot of information from that and have seen them and other sites as well report

other places that I've now followed along, too, as well. Midwifes, or doulas, or those types ... Or just new moms also who maybe are a little bit more active on their social media than I am. (Fiona)

• I feel like now, because social media is so quick, you're consuming it so fast and so much, stories make it so that there's more content in a shorter period of time, which is kind of nice. (Laura)

## **1.2 Illustrative Quotes**

- I like that you can dabble in different things, you can test out something and then there's not a commitment to keep following it or keep up with it. Because I follow a lot of stuff and then I watch their posts and then if I'm not into it, I just unfollow them. So, I guess you're saying that there's not a commitment there. (Wendy)
- ... as far as questions that have come up since being a new mom, like about nursing, or sleeping schedules, I've come across those on social media. But when I'm seeking them out, I don't know if I searched for those things specifically on social media as much as I would google those things. (Fiona)
- I'll take all this information and I'll try it. And, if it doesn't work, okay. That's fine. But it can't hurt. So, the more you have, that's not necessarily a bad thing." (Susie)
- ... anonymous is nice. A lot of people post or I can search that group too because it's huge. And a lot of people are like, "I don't know where else to ask this." But kind of like you were saying with the What to Expect groups of, like, it's sort of anonymous. And so, it is big. I just looked. It's like 14,000 members, so it's big, I think. But yeah, I guess part of that of just sort of like seeing the experience and stuff but not having any pressure on me is awesome because I don't like that. (Tina)
- ... timing of it, I guess it's kind of that validating piece. And it's sort of the feeling of like, "Hey, this is what works for me. Maybe it'll work for you," kind of sharing experience without giving advice or telling you what to do. (Tina)
- I mean, she's [BabiesAfter35] posting it anyway, so while it's up there, just watch through some of her videos. I can't remember which body she's pulling information from, when she's talking, but I've just kind of listened to a few of her talks and what her governing body is saying. (Nola)