3-1-2018

Ecological Factors Influencing Breastfeeding Decisions Among Korean Immigrant Mothers in America

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J Child Fam Stud (2018) 27:928–943
DOI 10.1007/s10826-017-0927-x

ORIGINAL PAPER

Ecological Factors Influencing Breastfeeding Decisions among Korean Immigrant Mothers in America

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Published online: 6 November 2017

Abstract There are complex relationships among individual, family, community, and social factors related to breastfeeding. Immigrant mothers, specifically, face several unique challenges to practicing breastfeeding while negotiating these factors within two cultural worlds. Grounded in the theory of planned behavior and the ecological perspective, our qualitative study findings unveil a part of the complex and dynamic process of breastfeeding decision-making among Korean immigrant mothers in the United States. To elicit mothers' underlying beliefs of attitude and intention toward breastfeeding as immigrants, we conducted in-person interviews with 13 pregnant and postpartum Korean immigrant mothers, ages ranging from 30 to 39. The findings revealed that Korean mothers held positive attitudes toward breastfeeding. However, translation of these positive attitudes toward breastfeeding into actual practice depended on the feasibility of actual breastfeeding by mothers. To overcome several barriers to breastfeeding, such as inadequate milk supply, health concerns, employment status, and the relationship with a firstborn child, many Korean mothers combined breastfeeding with formula feeding. The factors that shaped the development of beliefs and behavioral intentions toward breastfeeding among Korean immigrant mothers included the dynamic family interactions with their children, husbands, mothers, mothers-in-law, and sisters; support from friends and infant care experts; information available through various technology and media; and Korean-specific cultural traditions. Our findings suggest possible directions for future cross-cultural research on breastfeeding within diverse family contexts, and may inform the design of population specific intervention programs.

Keywords Breastfeeding initiation and continuation · Korean immigrants · Ecological factors · Theory of planned behavior

Introduction

Immigration often severs close relationships or reduces frequent family interactions, and limits young women's knowledge about and support for infant care from family members. Some researchers have also argued that breastfeeding decision making is highly sensitive to the family, cultural, and historical contexts in which mothers and their children live (Chen 2010; Kimbro et al. 2008; McInnes et al. 2013). The breastfeeding culture in the United States may be significantly different from that of their native country, which may create internal and external conflicts among family members when making breastfeeding decisions. Similarly, despite the current breastfeeding friendly environment in the United States, acculturation to American

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culture can also lower breastfeeding rates among immigrant parents. For example, Mexico-born immigrant mothers were more likely to ever-breastfeed and breastfeed longer than American-born Mexican mothers or other American Mothers (Kimbro et al. 2008). Some immigrant mothers from Mexico living in the United States also reported that breastfeeding was an 'old-fashioned' infant feeding method while formula feeding was 'modern' (Textor et al. 2013). These study results showed that some immigrant mothers were less likely to maintain their own cultural heritage that values breastfeeding. Additionally, misconceptions surrounding cultural beliefs about colostrum, breastfeeding, and child development among immigrant mothers, as well as language barriers, lack of cultural understanding, and discomfort working with immigrants among health care providers, can be major barriers for positive breastfeeding experiences and reduce breastfeeding rates among immigrant mothers (Chen 2010; Textor et al. 2013). Within an immigration context, therefore, the intergenerational transfer of breastfeeding knowledge and practices can be challenging, and the new culture and lifestyle may also have significant influence on young women's decision to breastfeed (Mendlinger and Cwikel 2006).

The lack of visibility of ethnic minority families in breastfeeding studies is notable. Despite the insightful findings of the few studies mentioned above and the expanding population of immigrant families in the United States, very few researchers have examined the breastfeeding decision-making processes in an immigrant family context. Breastfeeding is one of the major health behaviors that is grounded in both a cultural, in addition to a biophysical context among immigrant families (Chen 2010). Yet, health professionals often pay little attention to social and cultural beliefs and contexts that affect immigrant families' health practices (Callister 2001). As a result, little is known about how cultural backgrounds influence breastfeeding decisions among ethnically diverse immigrants to the United States. Further, among the ethnically diverse groups in the United States, very little attention in the breastfeeding literature has been paid to Asian mothers, particularly to Korean mothers. Although the Korean population has grown rapidly in the United States (Humes et al. 2011), there is virtually no breastfeeding statistical data or literature available about Korean immigrants to the United States. This neglect of minority cultural groups is partly due to a lack of local data sets and inadequate sample sizes of ethnic groups in national survey data sets (Scanlon et al. 2010).

In Korea in the 1970s, the proportion of infants who were ever breastfed was over 90%. However, it dramatically decreased until 2000 (reaching a low of 10.2%) and has slightly increased since 2006 (24.2%) as a result of newly implemented public health education programs (Kim et al. 2006). Based on these statistics concerning breastfeeding trends in Korea, we suspect that a relatively small number of Korean immigrant mothers practice breastfeeding in the United States, yet there is no evidence to support this hypothesis or research on the current trends of how Korean immigrant mothers make decisions about breastfeeding. There is strong evidence showing that immigration experiences significantly alter immigrant families' perceptions of and practice in breastfeeding (Chen 2010; Kimbro et al. 2008). Yet, it is not clear how immigrants change their beliefs and behavioral intentions toward breastfeeding during the acculturation process to American culture, especially when they are from countries that currently have lower breastfeeding rates than the United States, such as Korea. Traditionally, Korean families strongly emphasize the extended parental responsibilities across generations. As part of this parental responsibilities, many older parents are expected to provide child care for their grandchildren. Therefore, maintaining a close tie with extended female family members is especially crucial for young mothers in order to receive sufficient instrumental support for child care (Jang et al. 2016; Lee and Bauer 2013).

On the other hand, the positive effects of breastfeeding have been well-documented including its effects on infants' and mothers' nutrition, physical and psychological health, and cost-effectiveness (Aksu et al. 2011; Cross-Barnet et al. 2012; McInnes et al. 2013). Despite these benefits, it is not always as easy to breastfeed children as intended, and recent qualitative research findings on mothers' breastfeeding experiences clearly show the complex nature of breastfeeding decision-making processes (Andrews and Knaak 2013; McInnes et al. 2013). In particular, these studies demonstrate how mothers' breastfeeding decisions and experiences are explicitly and implicitly regulated by their broader social and cultural contexts. That is, with the current pro-breastfeeding environment, especially in United States, Canada and Western European countries, breastfeeding is collectively acknowledged as a normal, socially desirable, and expected mothering behavior for 'good' mothers. However, previous traumatic breastfeeding experiences, undesirable outcomes of babies' and mothers' health after breastfeeding, and employment after childbirth often discourage mothers from initiating or continuing breastfeeding even though these mothers sincerely want to breastfeed their children. Mothers who wish to breastfeed, but cannot, or even those who decide not to breastfeed, for whatever reason, often go through an agonizing decision making process. For example, many mothers reported feeling a great amount of social pressure about the appropriateness and the rigidity of the dominant infant feeding discourse toward breastfeeding, described as 'breastfeeding police' (Andrews and Knaak 2013) or 'social surveillance' (Stearns 2011). Due to this social pressure, some mothers knew that they would be engaged in a moral dilemma and

moral repair process when they exclusively formula-fed their children or supplemented breast milk with formula. They felt guilt or shame about sacrificing or potentially sacrificing the benefits of breastfeeding their infants (Andrews and Knaak 2013; Guyer et al. 2012; Stearns 2011). These feelings of guilt and shame about formula feeding decisions often made them think that they were 'bad' mothers (Taylor and Wallace 2012).

In addition, there is no shortage of information regarding the 'appropriate' duration of breastfeeding and how to breastfeed which results in the regulation, surveillance, and disciplining of mothers' psychological and physical identities (Andrews and Knaak 2013; Stearns 2011). However, the information coming from varying sources such as health professionals, breastfeeding support groups, family members and friends is often inconsistent, which can result in great confusion among mothers. For example, social ambiguity based on inconsistent and unsolicited advice from families, friends, and health care providers on the timing of weaning often causes confusion among breastfeeding mothers (Stearns 2011). Moreover, those who initially encourage mothers to start breastfeeding may give inconsistent or cursory support for breastfeeding mothers over time (Cross-Barnet et al. 2012; Stearns 2011). This type of social surveillance/policing and ambiguity toward breastfeeding may cause mothers to stop breastfeeding earlier than they desire or to continue breastfeeding longer than they plan (Andrews and Knaak 2013; Stearns 2011).

A review of current breastfeeding studies indicates that there may be complex relationships among individual, family, and social factors related to breastfeeding. Therefore, studying Korean immigrant families' breastfeeding practices may provide important insight into the breastfeeding decision-making process in general, as well as how Korean immigrant mothers negotiate between two cultural worlds when making breastfeeding decisions. In order to better understand how Korean immigrant mothers make decisions on breastfeeding initiation and continuation, it is specifically important to examine how both Korean and American cultural contexts and the acculturation process at various ecological levels influence their beliefs and behavioral intentions toward breastfeeding.

One of the major critiques of breastfeeding research is the lack of rigorous theory-based research that explains any inconsistencies between breastfeeding intentions and actual practices within a broader social context (McInnes et al. 2013). Recent studies on breastfeeding have found that mothers do not automatically initiate and continue breastfeeding only by learning about the benefits of breastfeeding, but rather their decisions are based on the complicated influences of social norms and support from various sources (Andrews and Knaak 2013; Chen 2010; Cross-Barnet et al. 2012; McInnes et al. 2013). Based on the need to apply a sound, contextualized theory-based model to provide in-depth explanations about the breastfeeding decision making process within the Korean immigrant cultural context, we explicitly applied the theory of planned behavior (TPB) (Ajzen 1991; Ajzen and Fishbein 1980) and the applied ecological theory modified by Perkins et al. (1996) in this study.

The theory of planned behavior (TPB) is one of the most commonly utilized models to predict health-related behavior such as smoking, drinking, health services utilization, breastfeeding, and substance use (Ajzen 1991; Ajzen and Fishbein 1980). This theory posits that behavioral intention precedes a certain health behavior, and the intention is influenced by three key constructs: attitudes, subjective norms, and perceived behavioral control. Attitudes (i.e., positive attitudes vs. negative attitudes) are determined by behavioral beliefs that performing the health behavior will lead to certain outcomes and is weighed by the evaluation of those outcomes (e.g., baby's physical health, mother-child bonding, lack of personal times, and difficulties in outings). A more favorable attitude results from beliefs that performing the health behavior will lead to positive outcomes. Subjective norms (i.e., supporters vs. opponents) are determined by normative beliefs of what valued social referents think about performing the health behavior (e.g., agreement or opposition from husbands, other family members, doctors, work place, and health care providers), and are weighed by the general motivation to comply with those referents. Perceived behavioral control (i.e., facilitators/support vs. challenges/barriers) is determined by specific situational factors (e.g., husbands' or friends' emotional and instrumental support, technical support from lactation consultant and doctors, employment status, amount of breast milk, and babies' feeding preferences) and the degree to which those factors make it easy or difficult to perform the specific health behavior (Bai et al. 2011). That is, the TPB proposes that if individuals believe that performing a certain health behavior yields positive outcomes and is good, socially acceptable, and feasible under their circumstances, they are more likely to be motivated to act on their behavioral intentions (Ajzen 1991; Ajzen and Fishbein 1980; Rivis and Sheeran 2003; Topa and Moriano 2010).

An ecological perspective is one of the most useful theoretical frameworks to explain the interconnectivity among multiple layers of environmental, contextual systems in individual and family development (Chibucos et al. 2005). Recent studies in the field of family sciences have advanced the concepts of this original ecological model developed by Bronfenbrenner (1979) and have developed several applied models to discuss the influences of environmental contextual factors on individual and family development (Perkins et al. 1996). These applied ecological

models commonly use the terminology of individual level (e.g., participants), family level (e.g., husbands, children, mothers, mothers-in-law, and siblings), community level (e.g., health care providers, other immigrant mothers, and significant others), and society level (e.g., Korean and American cultures) to discuss the ecological influences on family and human development (Perkins et al. 1996).

In the current study, the TPB was utilized to examine how Korean immigrant mothers' beliefs and behavioral intentions toward breastfeeding, their perceptions of social norms, and situations hinder or promote breastfeeding intentions, lead to their decisions about breastfeeding. Individual, family, community, and social level factors in the applied ecological theory were added to the original TPB model. Expanding the original TPB model by integrating the applied ecological theory can provide a more comprehensive picture of the interconnectivity among various individual, family, community, and social factors and their influences on Korean immigrant mothers' breastfeeding decisions and practices as emphasized in the TPB. More specifically, in the current study, first, this combined model helps us to identify various culturally specific ecological factors that promote common beliefs toward breastfeeding. The specific utilization of this combined model is described in details in data analyses. Second, in our findings, this combined theoretical model also guides us to better understand actual breastfeeding initiation, continuation, and discontinuation decisions among Korean immigrant mothers while they actively maintain Korean culture and also acculturate to the predominant culture in the United States.

Method

Participants

We recruited 13 first generation Korean immigrant mothers who (1) were 18 years and older, (2) resided in New York and New Jersey, and (3) were pregnant or less than 6 months postpartum. First, we specifically focused on first generation immigrants who came to the United States in adulthood or during their adolescent years. To enhance our understanding of the Korean immigrant-specific contexts of breastfeeding decisions, it is important to include Korean mothers who have been exposed to Korean culture to some degree, as well as to American ways of living through acculturation after immigration. Next, studying Korean immigrant mothers in New York and New Jersey would be helpful in understanding current trends of Korean immigrants' breastfeeding attitudes and practices as New York and New Jersey have the second and third largest populations of Korean immigrants in the United States, respectively, after California (Hoeffel et al. 2012). Therefore, our potential participants were most likely to represent common demographic characteristics of Korean immigrants in the United States.

The detailed information about the general demographic information and the specifics of each participant are presented in Tables 1 and 2. In summary, all 13 mothers who participated in this study were married for about 7 years, on average. About half of these mothers were 35 years old ($n = 6$, 46.2%). The mothers were primarily Roman Catholic or Protestant ($n = 12$, 92.3%) and had bachelor's degrees or higher education ($n = 11$, 84.7%). About one-third of the mothers worked full- or part-time ($n = 5$, 38.5%). About two-thirds of the mothers had an average annual family income before taxes in 2013 less than $200,000 ($n = 8$, 61.6%). About half of the interviewed mothers were first generation immigrants who came to the United States in adulthood ($n = 8$, 61.5%). Half immigrated to the United States because they (or their parents) expected better educational opportunities for themselves (or their children) ($n = 7$, 53.8%). Three of the 13 mothers moved to the United States because they were married men who had lived in the United States prior to their marriage (23.1%) and the remaining three mothers moved to the United States because of their parents' job relocation (23.1%). These 13 mothers had lived in the United States for an average of 14 years. During the time of the interviews, five mothers were pregnant (38.5%, $M = 23.4$ weeks) and the other eight mothers were postpartum. All the mothers were pregnant with or had given birth to their second child and had breastfed the first child for about 8 months.

Procedure

We used a purposeful sampling technique (Patton 2002) in order to meet our three participant selection criteria mentioned in the previous section. We recruited participants through Korean OB/GYN and pediatric offices, civic or religious associations for Korean immigrants, and Korean websites (www.MissyUSA.com, Missy U.S.A. hereafter) in New York and New Jersey. Following approval from the Institutional Review Board at a university and each site, recruitment fliers were posted on designated bulletin or online boards. Research team members also visited several clinics, civic, and religious associations to distribute fliers and recruit participants. Missy U.S.A. was selected because this is one of the most popular websites for married Korean women living in the United State (Kim and Yoon 2012). This website contains a special online forum for mothers who are pregnant or who have recently given birth. All recruitment materials explained the purpose of the research, eligibility requirements, and directed interested individuals

Table 1 Sociodemographic Information ($N = 13$)

Characteristics	M	SD	Range
Age (years old)	34.4	2.1	30–39
Marriage/relationship (years)	6.9	2.4	4–12
Average immigration years	13.9	6.7	2–23
Weeks in pregnancy	23.4	10.7	14–36
Number of children	1.7	0.9	1–5
Breastfeeding duration of the oldest child (months)	8.3	4.3	3.5–16
Characteristics	Frequency	%	
Religion			
Protestant	9	69.2	
Roman catholic	3	23.1	
None	1	7.7	
Education (highest degree)			
High school degree	2	15.4	
Bachelor's degree	6	46.2	
Master's degree	5	38.5	
Work			
Yes (full time or part time)	5	38.5	
No	8	61.5	
2013 Annual income before tax			
Less than $100,000	4	30.8	
$100,101–$200,000	4	30.8	
More than $200,000	1	7.7	
No answers	4	30.8	
Immigration timing			
Adulthood (18+ years old)	8	61.5	
Adolescenthood (10–17 years old)	5	38.5	
Reasons for immigration			
Better educational opportunities (study)	7	53.8	
Married to the current husband (husband's work)	3	23.1	
Parent's decision (parent's job relocation)	3	23.1	
Pregnancy status			
Pregnant	5	38.5	
Postpartum	8	61.5	
Previous breastfeeding experience			
Yes	13	100	
No	0	0	
Breastfeeding plan for the expecting or youngest child (methods)			
Exclusive breastfeeding	5	38.5	
Mixed feeding (breast milk + formula)	7	53.8	
Exclusive formula feeding	1	7.7	

to contact the research team via a study e-mail address or phone to set up an interview appointment.

When potential interview participants contacted the research team, the first and second authors talked with them to go over the purpose of the study, the potential benefits and risks of the study, and to answer any questions that Korean mothers had. After discussing the information about the study with a potential subject, if the person agreed to participate, the research team scheduled interviews and conducted the interviews at the participants' convenience. Participation in this study was completely on a volunteer basis and subjects were able to terminate their participation in the study at any time. They also had a right not to answer any questions that they did not want to answer.

Interviews took place at a location that was convenient for the participants, such as a bookstore, coffee shop, or library. Prior to the interviews, to enhance participants' understanding of the study, a written outline of the study and the consent form was distributed. After obtaining the signed consent forms, the first and the second authors conducted one-on-one interviews with Korean immigrant mothers. Each interview was conducted in Korean and took between 30 min to 1 h. Upon completion of the interview, each participant received $35 cash.

Measures

During the one-on-one interviews with Korean immigrant mothers, the first and the second authors asked them about (1) their infant feeding plans/experiences and breastfeeding intention/duration (e.g. How do you feel about breastfeeding as an infant feeding method?; What is the toughest obstacle you have faced while making infant feeding decisions and how have you handled them?); (2) the influence of spouses, parents, other family members, or various community members on their infant feeding plans (e.g., Are there people or agencies who have had a significant influence on your infant feeding decision?; If you have received conflicting advice on infant feeding methods from others, how have you handled it?); and (3) the pathway of breastfeeding decision making related to their families' immigration experiences (e.g., As a Korean immigrant mother, how do you feel about your current infant feeding plan/practice?).

Data Analyses

Interviews were audiotaped, transcribed verbatim, and translated into English through translation and back-translation procedures (Behling and Law 2000). Throughout the entire data analysis process, we used an iterative process of data analysis. The deductive process was guided by the TPB (Bai et al. 2011) and the applied ecological model (Perkins et al. 1996). The inductive process was assisted by grounded theory (Charmaz 2006; Strauss and Corbin 1998). That is, all the transcribed interview data were separately reviewed and coded for themes by the first, second, and third authors to ensure accuracy. The three

Table 2 Breastfeeding information by each participant ($N = 13$)

ID	Pregnancy	Weeks in pregnancy	Number of children	Breastfeeding experience (yes/no)	Breastfeeding duration of the oldest child (months)	Breast feeding plan for the expecting or youngest child for 6 months minimum
1	Postpartum		2	Yes	15.0	Exclusive breastfeeding
2	Postpartum		2	Yes	16.0	Mixed feeding
3	Pregnant	16	1	Yes	7.0	Mixed feeding
4	Pregnant	17	1	Yes	3.5	Exclusive breastfeeding
5	Pregnant	14	4	Yes	10.0	Mixed feeding
6	Pregnant	34	1	Yes	6.0	Mixed feeding
7	Pregnant	36	1	Yes	5.0	Mixed feeding
8	Postpartum		2	Yes	6.0	Mixed feeding
9	Postpartum		2	Yes	9.0	Formula only
10	Postpartum		2	Yes	10.0	Mixed feeding
11	Postpartum		1	Yes	4.0	Exclusive breastfeeding
12	Postpartum		1	Yes	3.5	Exclusive breastfeeding
13	Postpartum		2	Yes	13.0	Exclusive breastfeeding

authors then met to compare codes. The three authors repeated these coding and recoding procedures separately until agreement was reached about the codes and their definitions to ensure the reliability of our data analysis. Finally, in order to enhance trustworthiness in this study, we utilized triangulation using multiple sources (e.g., investigators, literature reviews, and theories) as a data validation strategy throughout the process of data analysis (Creswell 2007). Trustworthiness refers to the degree to which appropriate evidence is provided to justify any study findings and portray accurate descriptions of participants' experiences (Lincoln and Guba 1985).

Utilizing a semi-structured qualitative research design in this study allowed us to use the Korean immigrant mothers' own words to understand the unique processes of infant feeding decision making. We were also able to extract generalities about the ecological factors that challenge and facilitate beliefs and behavioral intentions toward breastfeeding at the individual, family, community and social levels across the Korean immigrant mother participants. That is, for data analysis, we utilized both deductive and inductive methods to identify the coding scheme for the transcripts. More specifically, the deductive element allowed for the development of codes corresponding to the TPB and the applied ecological constructs. Each author separately coded the interview transcripts by labeling discrete ideas or events related to the main TPB concepts, such as attitudes (i.e., positive attitudes vs. negative attitudes), subjective norm (i.e., supporters vs. opponents), and perceived behavioral control (i.e., facilitators/support vs. challenges/barriers). We also separately coded each of these TPB related ideas at individual (e.g., participants), family (e.g., husbands, children, mothers, mothers-in-law, and siblings), community (e.g., health care providers, other immigrant mothers, significant others), and societal (e.g., Korean vs. American cultures) levels.

After identifying the TPB and the applied ecological concepts in the interview transcripts, we conducted inductive coding consistent with grounded theory (Charmaz 2006; Strauss and Corbin 1998). Inductive codes emerged during the process of analyzing the interview data using the deductive methods described above. To identify emerging concepts and categories, we used open code by color-coding the major themes in an electronic copy of the interview transcripts. After developing major concepts and categories as a team, we conducted axial coding to understand the connections between each concept and category and looked for repeated themes. For example, we found noted effects of technology, female family members' support, and Korean postnatal care services on Korean immigrant mothers' infant feeding decision-making. Finally, we conducted selective coding to integrate themes for a coherent story line of infant feeding decision-making among Korean mothers within their acculturation contexts. In summary, utilizing both deductive and inductive processes of data analysis in association with the TPB, the applied ecological model, and grounded theory provided further insights into the complex relations among the various ecological factors related to infant feeding decision within the Korean immigrant context.

Results

Our analyses of interviews with 13 Korean immigrant mothers uncovered that the three TPB factors (attitudes,

subjective norm, and perceived behavioral control) played different roles in the two breastfeeding decision making phases (breastfeeding initiation and continuation phases). Each ecological factor (individual, family, community and social factors) also played different roles in breastfeeding decision making in each phase. First, positive attitudes toward breastfeeding and social acceptance of breastfeeding received at trusted social referents at various ecological levels encouraged Korean immigrant mothers to initiate breastfeeding (Main Theme 1). Three sub-themes regarding the influences of social referents on positive attitudes toward breastfeeding initiation emerged: friends, health/infant care experts, social media and family members. Next, the degree to which participants reported experiencing challenges in breastfeeding, social acceptance of formula feeding, and Korean specific postpartum care support became important factors in their consideration of whether to continue breastfeeding (Main Theme 2). Three sub-themes regarding challenges and facilitators of breastfeeding continuation within Korean cultural contexts emerged: cultural postpartum care after delivery practices (San Hu Jo Ri), the important role of San Hu Jo Ri specialists, and mothers' relationship with a firstborn child as breastfeeding continuation determinant. Finally, several cultural contexts influenced Korean immigrant mothers' breastfeeding experiences (Main Theme 3). Three sub-themes regarding breastfeeding initiation and continuation decisions within the immigration and the acculturation contexts also emerged: lost in translation, invisible wall, and mothers (in-law) can be preachy or out of fashion.

Breastfeeding Intention at the Breastfeeding Initiation Phase: Breast Is Best

The mothers in our study reported having learned about potential short- and long-term positive outcomes of breastfeeding through various sources before or during their pregnancy. For example, the mothers believed that breast milk, especially colostrum, provided important nutrition for infants and that breastfed babies have better immune systems and display better physical health over time. They also believed that breastfeeding helped mothers restore their postpartum physical condition, reduced the risk of postpartum depression during recovery, and prevented breast cancer in their later lives. The mothers additionally pointed out that breastfeeding helped the bonding process between the mother and baby. These beliefs are similar to those documented among the larger U.S. population (American Dietetic Association 2009). The mothers in our study stated these unsolicited pieces of biophysical information related to breastfeeding spontaneously and with confidence during the interviews and demonstrated a great amount of knowledge about breastfeeding. This information suggests that a medicalized dialogue of breastfeeding is dominant in current U.S. society and effectively leads mothers to form positive attitude toward breastfeeding initially. The following statements demonstrated how *social norms perceived from valued social referents at different ecological levels* shaped Korean immigrant mothers' *attitudes* toward breastfeeding and motivated them to *initiate* breastfeeding.

Friends and experts as community level referents

Eleven mothers told us that they were initially motivated to breastfeed by their friends from religious groups, work, and other social networks in which they were involved. These friends were most likely to be other mothers who had children of their own children's ages. Through pregnancy and mothering experiences, these mothers built stronger empathy and trust toward each other over time, resulting in making these friends the most sought-after information sources regarding breastfeeding. During the pregnancy, the encouragement of breastfeeding that they received from medical and other infant care experts, such as doctors, nurses, and lactation specialists, also helped the mothers develop their own *positive attitudes* toward breastfeeding ($n = 10$).

The media as a society level referent

Another major source from which the mothers learned about breastfeeding was the media, including Korean websites, books, and TV. Eleven mothers indicated that they had been exposed to the positive effects of breastfeeding through Korean TV documentaries or news programs even before becoming pregnant. These mothers also often used the Internet or books when they were actively seeking information about breastfeeding, in addition to discussing it with their friends and medical/infant care experts in the community. Their statements describe a prevalent social norm that encourages breastfeeding. The following quote well describes how community and social level factors intersectionally influenced mothers to develop positive attitudes toward breastfeeding, resulting in strong intention to breastfeed.

> When I was pregnant, I had some colleagues or friends who also had been pregnant or had given birth to children already. …One of my close friends in my lab… advised me to breastfeed, saying, "It is really good." … Due to her strong recommendation, I started reading some books that she recommended and articles from websites. At that time, I also watched some Korean TV shows or documentaries about the benefits of breastfeeding. During pregnancy, I came to vaguely form a positive attitude toward breastfeeding, and thought I would breastfeed after delivery. (Mother #3).

Mothers, sisters, and mothers-in-law as family level referents

Seven mothers reported that their own mothers' encouragement was the main reason for them considering breastfeeding as their main infant feeding option. The interviewed mothers reported that their own mothers encouraged them to try breastfeeding at least for a short duration, especially if the older mothers had breastfed their own children, despite the popularity of formula feeding in Korea at that time. Mothers-in-law were also often actively involved in breastfeeding decisions with the mothers ($n = 4$). These older mothers were more likely to provide instrumental, emotional, and material support, such as child care, monetary support, and Korean traditional medicine, rather than medicalized knowledge in order to facilitate their daughters (in-law)'s positive breastfeeding experiences. Family members, other than the older mothers, also helped influence the young mothers' breastfeeding decisions. Specifically, having sisters who practiced breastfeeding strongly influenced two of our participants to initiate and continue breastfeeding. Sisters often became breastfeeding companions and supporters, and became role models for each other when making decisions on breastfeeding. These findings support the important role of family members in breastfeeding initiation (McInnes et al. 2013). However, interestingly, the emotional support of husbands and brothers was minimally associated with the breastfeeding decisions ($n = 8$). During our interviews, these mothers implied that their husbands might have supported breastfeeding as an indirect way to excuse themselves from infant care.

> I take my mother-in-law's opinion seriously. And, my sister… her opinion is also important to me because she has a child of the same age as my child. … My husband does not consider childcare as a part of his responsibility. … Rather, my mother-in-law is eager to be involved in this matter. So I feel like my child caring partner is my mother-in-law rather than my husband. Usually, the child caring partners should be a husband and a wife, but I mostly discuss things with my mother-in-law, not much with my husband when I need to make any decisions about my child. (Mother #7).

Given that Korean parents highly prefer maternal or paternal grandmothers as a primary non-parental infant care system and high numbers of Korean grandmothers provide child care for their daughters (-in-law) as part of their parental responsibilities (Lee and Bauer 2013), this finding is not surprising. These statements demonstrate the emphasis on parenting responsibilities based on bilateral familism and strict gender role division in child care in Korean society and indicate that it extends to infant feeding decisions among young mothers and their older mothers in the Korean immigrant context.

Breastfeeding Behavior at the Breastfeeding Continuation Phase: Breast Is Best, but Formula Is Good Too

The influences of practical challenges at an individual level on breastfeeding continuation

Despite their strong intention to breastfeed during the breastfeeding initiation phase, twelve Korean immigrant mothers reported that exclusive breastfeeding was not absolutely necessary when mothers faced situational obstacles to breastfeeding, such as not having enough breast milk, a mother's physical or emotional illness, painful experiences during breastfeeding, and going back to work. Three mothers also expressed their concerns about the fact that breast milk lacked Vitamin D and Iron. It seems that Korean mothers believe that breastfeeding is ideal, but they also believe that the mixed feeding of breast milk and formula to their babies is more practical. For this reason, seven mothers in our study decided not to exclusively breastfeed their babies. Even though these mothers believed that the mixed feeding was beneficial and reasonable in their situations, however, these mothers still felt better when they heard people say, "These days, the quality of formula is really good… Don't be too stressed out about breastfeeding… Formula-fed children also grow well." These mothers also reported that they felt relieved when some doctors and nurses at clinics were in favor to the practice of mixed feeding methods in order to support the postpartum mothers and their infant babies when they experienced practical challenges to breastfeeding.

This finding indicates that in the process of deciding whether to continue breastfeeding, mothers seriously weigh situational obstacles and facilitators toward the actual breastfeeding experience. This finding also clearly demonstrates the conflict between idealism (i.e., attitudes and social norms) and practicality (i.e., perceived behavioral control) of breastfeeding, often discussed in the current breastfeeding literature. Unfortunately, despite the logical conclusion that the Korean mothers made on mixed feeding or formula feeding, these non-exclusively breastfeeding mothers experienced the moral dilemma of being a good mother as described by Andrews and Knaak (2013) or Taylor and Wallace (2012). Positive social responses from close friends, health/infant care experts, and family members toward their decisions not to exclusively breastfeed seem to be an important support mechanism in helping them feel less guilty.

Challenges and support at the family level for cultural postpartum care after delivery practices (San Hu Jo Ri)

In relation to breastfeeding, one important traditional practice in Korea is *San Hu Jo Ri* (postpartum care) where a mother and a newborn baby are cared for by the mother's own mother or mother-in-law for a minimum of 21 days after delivery. During this period, the postnatal mother often receives emotional and instrumental support for her full recovery, as well as gains infant care knowledge and techniques from her mother (Song and Park 2010). Four interviewees mentioned that their mothers (or mothers-in-law) traveled from Korea, took care of cooking, and often spent time with the older grandchild(ren) to help in the adjustment to a newborn. Three interviewees received similar support from their mothers (or mothers-in-law) who lived close by. This finding is consistent with the current literature on grandmothers' provision of intensive instrumental support and child care for young mothers in Korea (Lee and Bauer 2013). Four mothers in this study also explicitly pointed out that the postpartum care that they received from their mothers (mothers-in-law) was crucial in their ability to continue breastfeeding.

> If my mother could not have helped me with San Hu Jo Ri, I couldn't have done pumping or something like that. So in that case I might have given up [breastfeeding] earlier. … I had such a strong will to breastfeed my first child … so I would have pushed myself hard to do so, but I might have quit in the middle of it, if my mom wasn't there for me. During San Hu Jo Ri. … my mother-in-law prepared all the meals, and my mother took care of my first child to help me with San Hu Jo Ri. And… now…sometimes she sleeps with the baby at night. That is, the most important issue during my current San Hu Jo Ri is to take care of my first child. The first one is having a hard time to get used to the change. So for now my mother is helping me a lot by entertaining and feeding the first one. (Mother #9).

Important role of San Hu Jo Ri specialists in breastfeeding continuation within Korean society

In the absence of an older mother who could take care of her daughter after delivery at home, however, use of a formal outside care service (certified postnatal care specialists or facilities) and a new postpartum policy in Korea demonstrate how seriously Koreans practice the cultural tradition of postpartum care. In modern society with various changes in lifestyles and the increasing number of employed mothers, it has become difficult to practice San Hu Jo Ri provided by a mother or mother-in-law at home. Therefore, the first *San Hu Jo Ri Won* (formal postpartum care facility) was established in 1997 in Korea, and by 2012, about 508 privatized San Hu Jo Ri facilities were operating (Jeong et al. 2013). The demand for this formal service system has drastically increased for postpartum mothers and their families. For example, national statistics report that 28.2% of postpartum mothers utilized this service in 2008 in Korea (Statistics Korea 2013). During their stay, certified postnatal care specialists help the mother with the entire postpartum recovery process, including postpartum confinement, sleeping, postpartum specialty meals, breastfeeding support, breast and full body massages, basic recovery checkups, infant care, and other necessary care for the postpartum mother and the baby (Ministry of Health and Welfare 2014). As part of a governmental policy to increase the national fertility rate in Korea, the local or national government also provides an affordable home visit service of *San Hu Jo Ri Sa* (government certified postpartum care specialists) for lower income families who cannot afford the privatized care systems (Ministry of Health and Welfare 2014). The mothers in this study were influenced by these services and policy in Korea, and often expressed that they wanted to use a San Hu Jo Ri specialist service in New Jersey or New York to receive full postpartum care like in Korea.

During the interviews, the Korean immigrant mothers informed us that they utilized or would utilize a San Hu Jo Ri Sa service based in New York or New Jersey if their mothers, mothers-in-law, or other female family members were not able to help them with their San Hu Jo Ri for the first two to four weeks. A total of seven postpartum mothers actually hired Korean private postpartum care specialists and three of them received the postpartum care support from both their mothers and San Hu Jo Ri Sa. Despite their disappointment that they lacked the unique intergenerational San Hu Jo Ri experience due to the distance between them and their parents (in-law), the other four postpartum mothers who only hired Korean private postpartum care specialists often felt that these specialists tremendously helped them to initiate and continue breastfeeding. In particular, these specialists provided the mothers with technical and practical information about breastfeeding, breast massages, and Korean specific postpartum specialty foods, especially when the mothers had mastitis and not enough breast milk or their newborn babies had difficulty nursing. The mothers fully trusted the technical expertise of these Korean postpartum care specialists. They believed that this service helped them to continue breastfeeding for a longer duration.

> For San Hu Jo Ri after my first delivery, I hired a postpartum care specialist, called an *Imonim*.… She helped me with San Hu Jo Ri for four weeks, for a month. … This specialist was boarding and helping at

> my place from Monday through Friday. She was a Korean who was experienced with postpartum care and … she had knowledge about breastfeeding more than me. …When I was suffering from mastitis, she gave me a breast massage. …When the baby felt hungry due to insufficient breast milk, she formula-fed my baby to supplement it. … She also taught me to fully feed from one breast before switching because the beginning, middle, and final extraction stages of breast milk have different nutrition. …I learned a lot of knowledge from her. Yes, she was greatly helpful. (Mother #6).

Mothers' relationship with a firstborn child as another family level determinant of breastfeeding continuation

The Korean family is traditionally known for its emphasis on the parent-child relationship over the couple relationship (Lee and Keith 1999). The mothers we interviewed also implied that they put an emphasis on the parent-child relationship with their own children. Because a majority of the mothers wanted to breastfeed their babies and believed that breastfeeding was totally up to them as mothers, they often quit their jobs after they became pregnant or after delivery ($n = 8$). This trend became more prominent when they had a second child. Korean immigrant mothers' decisions to quit their jobs after childbirth seem to reflect Korean cultural practice in childrearing. In Korea, becoming a parent is an important family developmental task in young couples and childcare is still considered to be the major responsibility of mothers (Chung 2011). Therefore, mothers often give up their careers after childbirth until their children enter middle school and career disruption among women in their 30 s is very common in Korea (Statistics Korea & Ministry of Gender Equality and Family 2015).

Interestingly, during our interviews, two mothers explicitly reported the difficulty in breastfeeding their second child due to their relationship with their firstborn child. They expressed serious concerns about the firstborn child's developmental regression and emotional instability after the second child was born and this concern significantly impacted the mothers' decisions on the feeding methods and the duration of breastfeeding the second child. One mother specifically decided to discontinue breastfeeding her second child for this reason.

> First of all, [I had to exclusively formula feed the second child] in order to help my first child get used to having a sibling. If I decided to breastfeed the baby, I would have held the baby all the time. I felt that the first one would feel very jealous when seeing me cuddling the baby. …. I thought that breastfeeding the second baby would cause a serious conflict with the first child. Therefore, I was more likely to decide not to breastfeed the second one. (Mother #9).

The other interviewee recruited their family members to help with this issue. Often, her mother or mother-in-law took care of the firstborn child as a main role during the San Hu Jo Ri, or her husband bottle-fed the second child while the mother took care of the first child.

> I had told him [husband] that I would take the first one while sleeping because he might feel abandoned after the second baby was born. And my husband had agreed to bottle-feed the baby with the pumped breast milk while sleeping with the baby in the living room. But actually, when the baby wakes up in the middle of night, he cries alone because my husband has a hard time waking up… I think that they will need my help. (Mother #7).

These findings suggest that when Korean mothers experienced several *practical and situational challenges in breastfeeding at individual and family levels* (e.g., personal health, work, pain, and relationship with a firstborn child), the *cultural practice of San Hu Jo Ri* helped the mothers to overcome these challenges and promote the continuation of breastfeeding. Getting appropriate *emotional and instrumental support* from mothers (mothers-in-law) and San Hu Jo Ri Sa seems to be one of the most important *facilitators* for these mothers to continue breastfeeding. On the other hand, when the mothers decided to discontinue exclusive breastfeeding, *supportive social norms* toward mixed or formula feeding pertaining *within their families and communities* helped these mothers to ease the pressure of guilt or moral dilemma while dealing with their challenges.

Cultural Experiences in Breastfeeding Decision Making

Lost in translation

Not surprisingly, eight Korean mothers reported that they were more likely to utilize Korean media to seek information and trusted or felt most comfortable discussing this matter with other Koreans regardless of their English proficiency. Even if they spoke fluent English in their daily lives, the mothers still worried that they might misunderstand or miss important medical or nutritional information for babies when using English. They also navigated the eligibilities and requirements for seeking company-based or governmental support for pregnancy and breastfeeding in Korean. Thus, often Korean mothers shared or gathered their information through Korean web blogs (e.g., Missy U.S.A. or NAVER) with other Korean mothers who had similar breastfeeding experiences, consulted Korean friends, and sought help from Korean medical or breastfeeding

experts. The following statement well illustrates Korean immigrant mothers' sentiments in English usage while making decisions on breastfeeding in the United States:

> Because they [English speaking doctors, nurses, and lactation specialists] may use certain terms, or technical terminology and I'm not familiar with breastfeeding yet… I had a sort of fear that I might have difficulty in understanding them. If I were in Korea and there were such services, I would have called and asked for help without any hesitation. … I spent most of my time reading lots of postings written by the experienced moms in the pregnancy/childbirth section of "Missy U.S.A." Other mothers also reply to young, inexperienced mothers' questions and these young mothers often could not find a proper person or place to seek help. Those postings or comments are not 100% accurate, but I usually filter the information myself. When I am not convinced, I search Google or other websites for more research. So I take the necessary information here and there … Or… because I feel more comfortable with Korean, I search "NAVER." … Among the Korean websites, I don't remember the name though, there is a major blog on pregnancy. Anyone can register and share questions and answers about pregnancy and childbirth in that blog. Google or NAVER directs readers to many postings from that blog. So I visited that blog several times. (Mother #6).

Invisible wall

Seven Korean mothers discussed the cultural differences in parenting between the U.S. and Korea. Unpleasant experiences or disagreements in the past discouraged them from discussing general breastfeeding experiences in detail with other American mothers of various ethnic groups. The existence of cultural barriers was more prominent when the mothers went through a tough time breastfeeding. To avoid any cultural conflicts, these mothers tended to maintain collegial relationships with other American mothers without much revelation of their troubles. These Korean mothers often trusted other Koreans more than Americans due to the unique cultural beliefs and practices related to pregnancy and postnatal care present in Korean culture and which they were raised with. The following mother's sentiments clearly relate this cultural experience:

> Although I have lived in America for a long time and I would say I'm a Korean American, I don't think I've penetrated the American culture that much in terms of my circle of friends. I'm rather familiar with Korean culture, such as my Korean church…. I don't have a language barrier and I work at an American company, but I put up a sort of wall [between me and others]. There is an invisible wall… I had various experiences with other Americans. From my experiences, they are sometimes very nice, but I don't try to make very close connections with them. (Mother #4).

Another mother talked more in-depth about her experiences with American colleagues.

> My workplace colleagues are all Americans and we all got pregnant at the same time. But we didn't talk much about pregnancy in an educational way. … We shared information but not as detailed as it would be when I talked with my mother-in-law or my sister. Maybe it was due to a cultural barrier… and, these colleagues are all U.S.-born Chinese Americans. They have a bit different cultural background and different ways of child rearing culturally. … Most of all, we are just workplace colleagues so we just show baby pictures, make comments like "cute!" or ask if babies are walking or talking. … That's it. …We don't share in detail about our children's sickness or what kind of troubles that we are going through with breastfeeding. (Mother #7).

Mothers (in-law) can be preachy or out of fashion

Traditionally, Korean parents often expect heavy involvement from extended family members in parenting decisions during the first month after delivery while couples in the United States often prefer to adjust to parenthood without outside input right after delivery (Lee and Keith 1999). Five participants wanted to follow traditional Korean infant care practices, but these mothers also felt that some information that their mothers or mothers-in-law gave was old fashioned or not useful. In particular, the young mothers often reported that their mothers were not able to remember the details of infant care techniques as they had been out of practice for a long time. In these cases, therefore, the distance between Korea and America could help the young mothers be polite to their parents by listening to their advice, but saved them from practicing it when they did not like it. That is, the young immigrant mothers were emotionally connected with their family members, especially their mothers, through various technological gadgets (e.g., Skype, texts, and emails) even though they lived apart from each other. However, the physical distance between them provided a safe environment for these immigrant mothers to practice making independent decisions on parenting and to overcome generational gaps in parenting.

> Most of all, I'm free from being preached at… If I were in Seoul, I would have heard so many words…

do this or don't do that… Both my and my husband's parents live in Seoul. So they have no idea about what's going on here unless we explain it to them over the phone. They regularly visit us once a year, but we prepare everything before they come. So they don't have much to preach about. … Besides church, we don't have any contact with [Korean] elders. We make all the decisions on our own and don't listen to others about child rearing or breastfeeding. …So we are getting more stubborn. When we talk to my mother about our own ideas or the information that we find on the Internet, we say things like this: "Mother, according to these books…" and she responds to us saying "A book is one thing and reality is another." But we are more strongly drawn to what we read… (Mother #10).

Breastfeeding as an immigrant mother can be challenging. However, these statements demonstrate how Korean immigrant mothers overcame language and cultural barriers and established their own parenting styles by taking advantage of technology, ethnic social networks, and physical distance from family members across two different cultures.

Discussion

Our findings from 13 Korean immigrant mothers unveil part of a complex and dynamic breastfeeding decision-making process in the contexts of immigration and acculturation in the United States. As specified in our goals, first, we identified various ecological factors that led to common beliefs toward breastfeeding within the context of Korean immigrant families. Overall, all of the mothers who participated in this study reported that they believed breastfeeding was the optimal feeding method for infants and mothers and displayed positive attitudes toward breastfeeding. These mothers also expressed a strong intention to breastfeed their babies initially. Although these mothers unanimously expressed positive attitudes toward breastfeeding and recognized prevalent social acceptance of breastfeeding, how they developed these attitudes was quite different between mothers. These mothers gained an extensive amount of knowledge of various infant feeding methods, especially breastfeeding, through friends, family members, health care professionals, and the social media. This information was often gathered transnationally from both Korea and America. Their stories imply that government policies to promote breastfeeding in both countries seemed quite successful in initially facilitating breastfeeding-friendly attitudes among pregnant Korean immigrant mothers. Similar to other breastfeeding studies based on the TPB (Bai et al. 2011) and an ecological model of behavioral change (McInnes et al. 2013), the degree of emotional and informational supports that Korean immigrant mothers receive at various ecological levels, especially from female family and community members (e.g., mothers, mothers-in-law, friends and San Hu Jo Ri specialists), play important roles in the development of attitudes toward breastfeeding, resulting in facilitating or hindering a strong intention to initiate and continue breastfeeding.

However, despite unanimous agreement on the benefits of breastfeeding among the Korean immigrant mothers and socially constructed positivism toward breastfeeding, the mixed use of formula and breast milk or exclusive formula feeding was considered a desirable solution for the mothers when they faced practical and situational difficulties in breastfeeding. These trends are similar to the findings among mothers of other cultural groups (Cross-Barnet et al. 2012; McInnes et al. 2013). In this process, social responses from trusted referents at various ecological levels to their decisions influences the mothers' emotion or morality. These findings support the existence of both idealism and realism in approaches to breastfeeding in American and Korean societies. To deal with the discrepancy between reality (i.e., perceived behavioral control) and their ideals (i.e., attitudes and social norms) regarding breastfeeding, mothers were often inclined to listen to advice from their significant others that supported their infant feeding choices, as compared to rigid guideline adherence to exclusively breastfeed (Andrews and Knaak 2013; Cross-Barnet et al. 2012; Guyer et al. 2012; McInnes et al. 2013). However, our findings also suggest that these Korean mothers seemed to feel less social pressure about breastfeeding, compared to that observed in other studies. For example, Korean mothers did not feel that their family members, friends, and health care providers were 'policing' their breastfeeding initiation or continuation decisions, in contrast to Norwegian, Canadian, or non-immigrant American mothers (Andrews and Knaak 2013; Stearns 2011). The Korean mothers in our study also did not report any serious concerns about 'social ambiguity,' 'moral dilemma,' or 'shame or guilt' about their infant feeding choices (Andrews and Knaak 2013; Guyer et al. 2012; Stearns 2011; Taylor and Wallace 2012). It may be due to the social acceptance of mixed or formula feeding as one of the desirable infant feeding methods in Korean culture. Physical distance may also effectively buffer Korean immigrant mothers from having to address any unwanted or unfavorable feedback that their extended family members have expressed.

During our interviews, Korean mothers well-illustrated cultural aspects of breastfeeding decision making to initiate and continue breastfeeding as immigrants to America. First, due to the fast development of technology, the Korean

immigrant mothers displayed a tendency to seek information transnationally while collecting and processing the information in order to make their decisions about breastfeeding. For example, some popular Korean websites, such as NAVER.com or Missy U.S.A. played an important role as virtual emotional and informational support groups among Korean mothers. The Internet, computers, and smartphones also helped the Korean immigrant mothers to maintain emotional connections with their friends and families in Korea. It seemed that recent immigration did not emotionally disconnect close family and friend contacts, nor limit the Korean immigrant mothers' knowledge about and support for infant care from family members and friends. The flow of information was not limited by distance at all.

Interestingly, limited physical interactions were often used as an opportunity to practice independent decision making among these young mothers by sparing them from the traditional heavy involvement of family members in infant care decisions. In addition, the mothers' stories explicitly explained why some young mothers appreciated instrumental or emotional support from their own mothers or mothers-in law (Lee and Bauer 2013; McInnes et al. 2013), but they did not welcome their mothers' breastfeeding-related information or knowledge (Andrews and Knaak 2013) within the Korean immigrant context. These findings suggest that Korean immigrant mothers actively engage in a dual process of enculturation and acculturation at various degrees across parenting beliefs and behaviors. That is, Korean immigrant mothers seemed to quite strongly maintain close ties with family members and Korean friends in learning about Korean cultural beliefs and practices about traditional mothering. Yet, they also showed meaningful adaptation of autonomy in parenting as immigrant parents.

While the intergenerational transfer of breastfeeding knowledge and information easily occurred among these Korean immigrant families, at least partly due to the development of technology and newer information, these young mothers reported difficulty receiving culturally unique postpartum care (San Hu Jo Ri) in the United States. Limited physical and instrumental support from their mothers (mothers-in-law) after delivery significantly influenced the Korean immigrant mothers' decisions about breastfeeding. To satisfy the cultural demand of postpartum care after delivery, private postpartum care services have been established in New York or New Jersey that are similar to those in Korea, and the mothers actively sought this type of service as an alternative to their mothers' care. Even for the mothers who spoke English fluently, the use of this service, as well as consulting various Korean media sources, also addressed Korean mothers' concerns about misunderstandings related to certain infant care practices that might be caused by cultural differences and linguistic nuances. Although the acculturation process to the new culture was unavoidable after immigration, the Korean mothers and the Korean community have actively and creatively dealt with the cultural and life style changes.

Not surprisingly, breastfeeding decisions often heavily depend on the Korean mothers' personal experiences. However, due to the strong influences of bilateral familism and gender division in child care (Lee and Bauer 2013), in many Korean immigrant families, husbands (and male siblings) often played the least practical role in this decision process, other than providing emotional support for their wives' infant feeding decisions. Rather, female extended family members such as mothers, mothers-in-law, and sisters played more important instrumental roles in assisting the Korean mothers to breastfeed their newborn babies. This is similar to the trend of transferring the child care responsibility from mothers to grandmothers in Korea as part of grandmothers' sacrifices for their adult children's well-being to fulfill their sense of parental responsibilities (Lee and Bauer 2013). Due to a strong tradition of postpartum care for mothers (Song and Park 2010), Korean friends and infant care experts, especially *San Hu Jo Ri* specialists, also played an important role in providing timely and culturally appropriate breastfeeding information and advice. These Korean friends and experts helped the mothers by easing their concerns about language issues and cultural differences that they might have faced while providing helpful technical support for parenting and infant-care within the Korean cultural context. Finally, due to the strong emphasis on parent-child relationship in Korean culture (Lee and Keith 1999), the relationship with the first child at the time of the birth of the second child often strongly influenced the Korean mothers' breastfeeding decision and practices.

Limitations and Future Research Implications

The stories of the 13 Korean immigrant mothers in our study confirm that breastfeeding decision-making is highly sensitive to the family, cultural, and historical contexts in which mothers and their children live. These mothers' positive attitudes toward breastfeeding were consistently demonstrated through their breastfeeding initiation and continuation practices. However, they did not strictly endorse exclusive breastfeeding for all mothers. Many mothers preferred the mixed feeding method, as they felt that health benefits for their infant were derived from both breast milk and formula, in addition to the impracticality of exclusive breastfeeding. In this process, family members, friends, health care experts, and social media as trusted social referents and facilitators promoted Korean immigrant mothers' intentions to initiate and continue breastfeeding. Our findings provide further insights about how Korean

immigrant mothers develop certain attitudes, beliefs, and behavioral intention as part of the breastfeeding decision-making process within a specific ethnic context, as well as within the dynamic contexts of family relationships across two cultures.

However, there remains much to learn about this complex process. Because we utilized a non-randomized convenience sampling method and collected data from a small number of similar participants, our qualitative findings cannot be applied to all Korean Immigrant mothers in America. To overcome this lack of generalizability of findings and enhance the contribution of wealth and depth of qualitative interview information, first, we need to further examine the processes and meanings of making breastfeeding decisions within the context of Korean immigrant families by identifying the relative importance of the TPB factors that promote and hinder breastfeeding practices at various ecological levels. For example, our findings suggest that different phases of the TPB may exist while making breastfeeding decisions. More specifically, the breastfeeding decision process seems to consist of at least two phases (initiation and continuation). At the initiation phase, positive attitudes result in behavioral intention to initiate breastfeeding. At the continuation phase, perceived behavioral control leads to behavioral intention to continue breastfeeding. At both phases, subjective norm plays a crucial role in facilitating and hindering the impacts of attitudes and perceived behavioral control on behavioral intention to initiate and continue breastfeeding. Also, at each phase, different types of ecological factors seem to play important roles in determining behavioral intentions to breastfeed. At the initiation phase, information or emotional support at family, community and society levels is strongly associated with the development of a positive attitude toward breastfeeding. However, at the continuation phase, receiving concrete instrumental support from trusted family and community members (e.g., mothers(in-law) and *San Hu Jo Ri* specialists) is the most important factor for mothers in deciding whether to continue to breastfeed. In addition, specific situations at individual and family levels become another salient determinant for Korean mothers' decision to continue breastfeeding. The relationships with a firstborn child, mothers (in-law), and husbands continuously played important roles in the decision as to how long to continue breastfeeding. These findings are somewhat similar to those of McInnes et al.'s (2013) regarding the dynamic influence of people, situations, and feeding history on mothers' breastfeeding behavioral changes. In addition, instrument development research affirms that consulting with a target population is a critical step in the creation of new measures (Bai et al. 2009). As such, further research on culturally specific ecological factors and pathways of breastfeeding decision-making and practices will be helpful to modify the current TPB measurements developed by Bai et al. (2010).

It is also imperative to study the differences and similarities in breastfeeding decision processes across various ethnic families in the United States, as well as to study larger groups of Korean families living in Korea and the United States. For example, our current study participants were relatively affluent and highly educated. These characteristics may have contributed to their easy access to more resources (e.g., postpartum care specialists) and information from digital media sources in both countries. As a result, these mothers might have been experienced a more informed breastfeeding decision making process and an easier transition to motherhood compared to Korean mothers who are underprivileged.

In addition, some studies found that Chinese Canadian mothers' breastfeeding experiences were closely related to the traditional Chinese postpartum practice of *zuo yuezi* and classical Chinese parenting and medicine practice (Chen 2010). The Chinese Canadian mothers in this prior study also reported strong ties with their own mothers (Chen 2010). On the other hand, mothers from Western cultures were less likely to receive consistent postnatal care service from healthcare experts (Cross-Barnet et al. 2012) or grandmothers (Grassley and Eschiti 2008), yet were more likely to experience social pressure about breastfeeding (Andrews and Knaak 2013). Therefore, in order to examine these similarities and differences in depth, it is necessary to develop culturally sensitive guidelines for cross-cultural research on breastfeeding within diverse family contexts.

Finally, it is strongly recommended that researchers develop evidence-based, family prevention and intervention strategies that may address the specific needs of Korean immigrant mothers making infant feeding decisions within two different cultural contexts. Since the younger generation of Korean immigrants is computer and technology savvy, breastfeeding promotion groups should focus on delivering proper evidence-based resources to young Korean mothers as well as other ethnic mothers by effectively utilizing mainstream technology. For example, doula care has proven to improve breastfeeding initiation and duration (Nommsen-Rivers et al. 2009), resulting in better health outcomes for both mothers and infants (Choices in Child Birth 2016). Currently, several community-based doula programs offer culturally sensitive doula services at low costs or for free to underprivileged families. Recently, there has also been an active movement to obtain Medicaid and private insurance reimbursement for doula care services in several states (Choices in Child Birth 2016; Kozhimannil and Hardeman 2016). Since Korean mothers as immigrant mothers in the United States felt language and cultural barriers with health care providers and co-workers in their community, launching a bilingual and culturally sensitive

Doula Care Project that specifically targets Korean immigrant mothers may be effective in supporting positive breastfeeding experiences among Korean immigrant mothers, especially for those who cannot afford to use private postpartum care specialists (San Hu Jo Ri Sa). Considering the unique characteristics of San Hu Jo Ri, as well as the positive outcomes of postnatal breastfeeding education and support (Aksu et al. 2011), doula services offered at home for a month after delivery may be very effective in facilitating breastfeeding among Korean immigrants. Offering this program may also help those Korean immigrants who live in areas with few other Korean immigrants to receive proper postpartum care services. Most San Hu Jo Ri specialists and care facilities in the United States are located in a limited number of cities, such as Los Angeles, Queens, and Chicago, where the majority of Korean immigrants to the United States. On the other hand, doula services can be more easily accessible to new mothers across the country.

Author Contributions S.Y.L.: designed and executed the study, analyzed the data, and wrote the paper. Y.K.B.: designed and executed the study, analyzed the data, wrote a part of the theory section and collaborated in the writing and editing of the paper. S.B.Y.: assisted with the data analyses, and collaborated in the writing and editing of the paper.

Funding This study was partially funded by a Separately Budgeted Research Award and Summer Grant Proposal Development Award from Montclair State University.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee at Montclair State University and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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