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Abstract

The current study examined the influence of ecological variables in breastfeeding role expectations on mothers' sense of competence in infant care, and the mediating effect of breastfeeding experience of mothers on the relationship between breastfeeding role expectations and mothering sense of competence. Thirty nine Korean American mothers who have babies under 18 months old participated in the survey asking about various ecological factors in breastfeeding role expectation, their actual breastfeeding experience, and mothering sense of competence. Findings suggested that each ecological variable (i.e. mother self, baby, family, and community) influencing Korean American mothers' breastfeeding role expectation was differently related to mothering sense of competence, and breastfeeding experience had an important role as a mediator in the relationship between mothers' breastfeeding role expectation and mothering sense of competence. Especially, the encouragement from family members influenced more positive experience in breastfeeding and made mothers feel higher level of sense of mothering competence. The findings also addressed some cultural aspects of breastfeeding practice in the current medical/scientific discourse and Asian cultural belief toward childrearing. Finally, the limitations of this study and future implications for research and practice were discussed.

MONTCLAIR STATE UNIVERSITY

Breastfeeding Matters:

Infant Feeding Decision Making and Mothering Sense of Competence among Korean American
Mothers

by

Soo-Bin You

A Master's Thesis Submitted to the Faculty of
Montclair State University

In Partial Fulfillment of the Requirements


For the Degree of Master of Arts

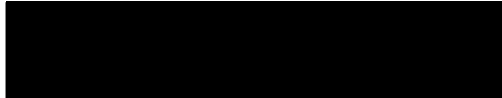
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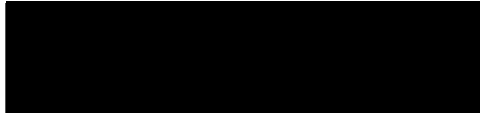
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**BREASTFEEDING MATTERS:
BREASTFEEDING ROLE EXPECTATIONS AND MOTHERING SENSE OF COMPETENCE
AMONG KOREAN AMERICAN MOTHERS**

A THESIS

Submitted in partial fulfillment of the requirements

For the degree of Master of Arts

by

SOO-BIN YOU

Montclair State University

Montclair, NJ

2016

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Table of Contents

Table of Contents	v
List of Tables	vii
List of Figures	viii
Chapter I: Introduction.....	1
Chapter II: Theoretical Frameworks.....	4
Symbolic Interactionism.....	4
Ecological Theory.....	6
The Integration of Symbolic Interactionism and Ecological Theory.....	7
Chapter III: Literature Review.....	10
Various Factors that Influence Mothering Role Expectations and Their Effects on Mothering Sense of Competence.....	10
Various Factors that Influence Mothering Role Expectations and their Effects on Breastfeeding Experience.....	13
Mothering Role Expectations, Breastfeeding Experience and Mothering Sense of Competence.....	17
Chapter IV: The Current Study.....	18
Chapter V: Method.....	21
Participants and Procedure.....	21
Measures.....	24
Breastfeeding role expectation influenced by various ecological factors..	24
Breastfeeding experience.....	26

Mothering sense of competence.....	26
Demographic information.....	27
Data Analysis.....	27
Chapter VI: Results.....	29
Correlation Analysis.....	29
Mediation Analysis.....	31
Chapter VII: Discussion.....	35
Chapter VIII: Conclusion.....	40
Contributions.....	40
Limitations.....	42
Implications.....	43
References.....	45
Appendix A: Measures.....	57
Appendix A1: Mother Self and Infant in Breastfeeding Role Expectation.....	57
Appendix A2: Others' Thoughts about Breastfeeding during My Pregnancy...	58
Appendix A3: Breastfeeding Experiences.....	59
Appendix A4: Mothering Sense of Competence.....	60
Appendix A5: Demographic Information.....	61
Appendix B: IRB Approval Letter.....	64
Appendix C: Informed Consent.....	65
Appendix D: Recruitment Flyer.....	67

List of Tables

Table 1-1: Demographic Information of the Participants.....	23
Table 1-2: Demographic Information of the Participants.....	24
Table 2: Means, SDs, and Inter-correlations among Variables.....	30
Table 3: Total Effect and Direct Effect of Ecological Variables on Mothering Sense of Competence (MSC).....	30
Table 4: Indirect Effect of Ecological Variables on Mothering Sense of Competence.....	31

List of Figures

Figure 1: General theoretical model based on symbolic interactionism and ecological theory.....	9
Figure 2: The testing model of the effects of ecological factors of breastfeeding role expectation on mothering sense of competence, and the mediating model of breastfeeding experience on the relationship.....	19
Figure 3: Mediation model of breastfeeding experience in the relationship between mother's self-identified breastfeeding role expectation and mothering sense of competence.....	32
Figure 4: Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with infant and mothering sense of competence.....	32
Figure 5: Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with family members and mothering sense of competence.....	34
Figure 6: Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with community members and mothering sense of competence.....	34

Chapter I

Introduction

Infant feeding is one of the most fundamental tasks in childrearing as well as parenting practice (Warren, 2005). Given that mothers want to be 'good' mothers with providing best care for their babies, the decision making about what to feed and how to feed a baby occupies one of the major concerns among mothers (Knaak, 2010; Lee, 2008). Therefore, this study aims to examine how mothers' role expectations toward breastfeeding at various ecological levels influenced mothers' sense of competence through breastfeeding experiences among Korean American immigrant mothers.

Due to the recently growing interests on breastfeeding, among other infant feeding methods, research on breastfeeding has been well documented in the literatures of medicine, public health, and social policy. It is asserted that breastfeeding is essential for bonding and attachment between mother and child (Else-Quest, Hyde, & Clark, 2003). Breast milk also has been known to have immunological and nutritional properties that protect infants from various health risks such as obesity or atopic dermatitis among children (Salone, Vann Jr., & Dee, 2013; Yang, Tsai, & Lu, 2009), and finally promote their cognitive development and psychological well-being (Kramer et al., 2008; O'Brien, Buikstra, & Hegney, 2008). Based on the benefits of breastfeeding, current medical recommendations and governmental policy encourage more mothers to breastfeed and to breastfeed exclusively for more than six months (U.S. Department of Health and Human Services, 2011; World Health Organization, 2002).

On the other hand, increasing number of qualitative studies examined mothers' own accounts of breastfeeding and formula feeding experiences to highlight the social construction of infant feeding practices (Knaak, 2010; Lee, 2008; Williams, Kurz, Summers, & Crabb, 2012). The social constructivist perspectives on infant feeding practices have challenged the existing medical and health based discourse of breastfeeding. According to the criticism made by social constructivist and feminist scholars, the medical and policy oriented discourses to increase breastfeeding rates have excluded the lived experiences of mothers and socio-cultural context of infant feeding (Marshall, Godfrey, & Renfrew, 2007; Spencer, Hinsliff-Smith, & Walsh, 2012). Under the dominant, scientific-medicalized discourse, breastfeeding became a 'source of pride' for the mothers, and, in turn, success with breastfeeding was primarily related to an issue of mothering identity (Knaak, 2010). These discourses established the ideology of 'breast is best', which frequently conflates with social discourse of 'good mothering' (Marshall et al., 2007). As results, many non-breastfeeding mothers were found to experience feelings of guilt, failure in mothering role, and frustration (Taylor & Wallace, 2012).

The two seemingly conflicting arguments reflect the tension between idealism and realism in breastfeeding among mothers. In particular, in the extant literatures focusing on mothers' infant feeding experiences, relatively little attention was paid to explain how mothers' ideal breastfeeding expectations and actual breastfeeding practice experiences are related to various environmental factors and their mothering sense of competence. Although many mothers recognized the benefits of breastfeeding due to the breastfeeding promotion, they faced difficulties in initiation and continuation of breastfeeding in

practice (Hoddinott, Craig, Britten, & McInnes, 2012). Under the dominant culture of breastfeeding, at the same time, success in breastfeeding was found to affect mothers' self-efficacy in infant care (Huang, Wang, & Chen, 2004; Tarrka, 2003). These findings suggest that mothers' breastfeeding experiences in practice may play an important role in explaining the relationship between mothering role expectations and their parenting sense of competence. Therefore, the current study aims to examine the effect of breastfeeding experience on the relationship between mothering sense of competence and ecological factors that influence mothers' role expectation about breastfeeding.

Despite the demographic and cultural salience of Korean American community in the U.S. society, the infant feeding practices of Korean American mothers have been rarely discussed in the family studies. According to a previous qualitative study (Bai & Lee, 2014), however, Korean American mothers thought that breastfeeding was a must and an essential job for mothers to do for their babies. Such emphasis on breastfeeding may represent a unique cultural dimension of Korean American mothers' intensive parenting style in the immigration context (Chen, 2010; Singh, Kogan, & Dee, 2007). Therefore, this current study specifically focuses on testing the proposed mediating effect of breastfeeding experience on the relationship between mothering sense of competence and role expectations through Korean American mothers.

Finally, to achieve this goal, the two theoretical frameworks of symbolic interactionism and ecological theory were utilized in order to examine the relationship between mothering role expectation, breastfeeding experiences and mothering competence of Korean American families. Becoming a mother involves many different

roles in terms of individual childrearing attitude, psychological perception of gain or loss, relationship with child, support and social network, and work/employment (Laney, Hall, Anderson, & Willingham, 2015; Nicolson, 1999). The integration of the two theories are expected to hypothesize how various socio-cultural factors influence on forming an idealized view on being a 'good' mother through breastfeeding and how the internalization of such socio-cultural values affects the perceptions of mothering (Chan, Williamson, & McCutcheon, 2009; Koniak-Griffin, Logsdon, Hines-Martin, & Turner, 2006; Lupton, 2000). The integrated theoretical framework, therefore, suggests further understanding of the relationships of mothering role as well as the various ecological factors affecting mothering experiences and sense of competence in the context of Korean immigrant families.

Chapter II

Theoretical Frameworks

Symbolic Interactionism

From the perspective of symbolic interactionism, social processes should be understood by explicating how 'meaning' is constructed and represented in social interactions (Chibucos & Leite, 2005). In other words, symbolic interactionists are concerned with meanings that are experienced, understood, and perceived by the individual within a certain context. According to Mead (1934), since the human beings are situated in interactions with the social world, the 'self' is constantly changing in the interaction between 'I' as a subjective actor and 'me' as an objective reflection of others' view point. Such conceptualization of the self and social interaction can be relevantly

extended to the formation of 'roles' and 'identities'. A participant's roles must be understood within the context of social interactions with others. Furthermore, the participant constructs the self and develop identities through the experience and perception of a situation within a broader society (Jeon, 2004).

More specifically, symbolic interactionism helps to explore how mothers construct their identities and perceive their roles within families and societies. The construction of maternal identity refers to self-significance within the mothering roles that they perform, and, at the same time, postpartum mothers often negotiate and reconstruct their own identities by incorporating the new roles in the relationship with their babies and other significant others (White, Klein, & Martin, 2015). During this process of identity formation and modification, mothers face the differences between the realities and the internalized ideals of motherhood (Laney et al., 2015). Due to the significant changes of identities and roles in the transition to motherhood, mothers may experience a conflict between happiness of gaining a new role as a caregiver and a loss of autonomy and power, resulting in the paradoxical experience of motherhood (Nicolson, 1999).

While symbolic interactionism helps understanding the meaning of motherhood in the process of negotiating mothering identities and roles, this theory is also useful to explain the ways in which the negotiated mothering identity between the mother self and the society creates mothering role expectations. In other words, the feeling of loss and confusion in their self-identity was found to be normalized after social interactions with others while mothers re-define self, others, and their motherhood in the process of

clarifying role expectation (White et al., 2015). On the flip side, an empirical research on homeless adolescent mothers found that the absence of adult role models to transmit role expectations with necessary parenting information and knowledge added difficulties for the teens to conceive positive mothering behaviors and maternal competence (Levin & Helfrich, 2004). As such, mothering role expectation can influence role self-efficacy which is the belief and confidence in ability to perform the mothering tasks successfully (Leerkes & Crockenberg, 2002).

Ecological Theory

With holistic and systematic perspectives, ecological theory focuses on the interdependence between human actions and the social environments (Bubolz & Sontag, 1993). As a major developer of ecological perspectives in the study of human development, Bronfenbrenner (1979) suggested four levels of environmental systems which influence the parent-child relationships. The four systems consist of face-to face relationships (micro-system), linkages among intimate relationships (meso-system), relationships in which the micro-system partners are embedded (exo-system), and broader social and cultural environments (macro-system) (Perkins, Ferrari, Covey, & Keith, 1996). For example, in the research on child development, the ecological theory is usually used to examine the mutual influences between the different levels of system during childhood. Not only the personal characteristics of a child, but also a wide range of links between family functioning, poverty, health and social exclusion based on community functioning and social support available to families were considered to

identify key factors to predict child development and effective intervention strategies (Jack, 2000).

Recent studies on parenting showed that Bronfenbrenner (1979)'s ecological perspective was applied to various relationships such as effects on adolescents of parenting style (Steinberg, Mounts, Lamborn, & Dornbusch, 1991), effects on ethnic identity formation of family and parenting (Umana-Taylor, Bhanot, & Shin, 2006), parenting behaviors by various contextual factors (Pinderhughes, Nix, Foster, & Jones, 2001), and multiple contributors to maternal self-perceived parenting (Bornstein, Hendricks, Hahn, Haynes, Painter & Tamis-LeMonda, 2003).

In the field of health science, the ecological theory is also used to examine the effects of multiple types of influence and multi-level intervention on the health behavior including obesity, smoking, substance abuse (Sallis & Owen, 2002). In particular, Dunn, Kalich, Henning, and Fedrizzi (2015) examined multiple ecological factors which influenced breastfeeding decision negatively (i.e. barriers) as well as positively (i.e. facilitators) including breastfeeding knowledge, perceptions of family members, friends, or co-workers, and social norms and systems through the lens of a social ecological model. In summary, Bronfenbrenner (1979)'s multi-level ecological model is useful to explain mothering practices in infant feeding decision behaviors influenced by mothers and babies (micro), families (meso), communities (exo), and societies (macro).

The Integration of Symbolic Interactionism and Ecological Theory

As shown, the two theoretical approaches of symbolic interactionism and ecological theory have its own merits in explaining mothering behaviors and self-efficacy

in multi-level social interactions. Limitations of empirical studies based on each theory, however, suggest the integrated approach may be helpful to systematically examine the relationship between mothering role expectation and multiple level of environmental factors.

With regard to symbolic interactionism, the common criticism of “society only in the minds of people” echoes with the theory’s limitation of too focusing on individual subjectivity and less concerning with social structure (Aksan, Kisac, Aydin, & Demirbuken, 2009, p. 903). More specifically, the studies using symbolic interactionism are concerned with the meaning making by mothers’ interpretation, which is usually subjective process. However, with the symbolic interactionism, the paradoxical experience of motherhood transition (Nicolson, 1999) can be appreciated by explicating the process where mothering role expectation is constructed through multiple level of social interactions within broader social context. More specifically, social context in which the interpretation is embedded needs systematic approach combined with macro level of explanation of society as well as micro explication of relevant psychological factors. In this sense, with providing concrete structural factors in the analysis, ecological theory can complement the weaknesses of symbolic interactionism.

The studies relying on the ecological theory, on the other hand, also have limitation in terms of scope and specificity of theoretical application. Ecological theory often encompasses every aspect of human behavior due to the vague conceptualization while the term of ecosystem is defined differently by researchers (Bubolz & Sontag, 1993). In the current study, therefore, multiple systems level of relationship are

conceptualized in terms of mothers' role expectation formation driven from their perception of the self, others and social norms. Therefore, this study applies symbolic interactionism to understand mothers' role expectation in specific relational terms with mother self, infant, family and community members grounded in ecological theory.

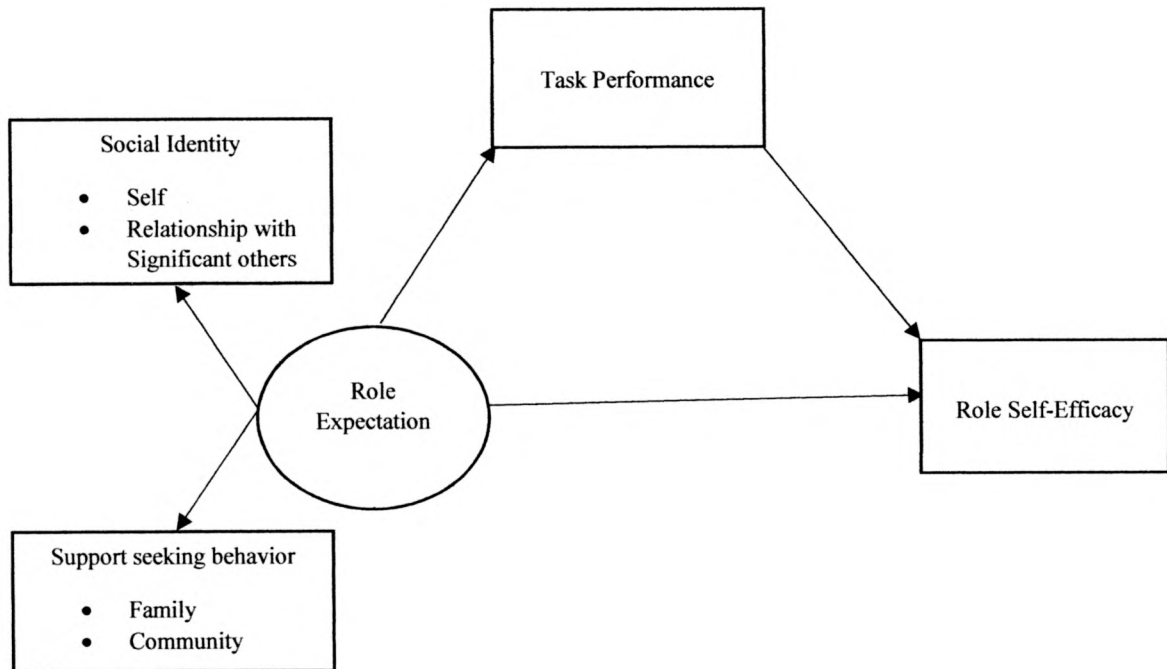


Figure 1. General theoretical model based on symbolic interactionism and ecological theory.

The integrated theoretical model was shown in Figure 1. In the model, mothering task performance is theorized as a mediator of the positive association between role expectation as a mother and mothering role self-efficacy. In particular, as far as becoming a mother involves many different roles (e.g., individual, mother, wife, family member, worker, community member etc.), the model suggests that mothering role expectation is

related to mother's social identities in personal and relational terms through dynamic interactions with the self, infants, families, and communities. And, the model indicates that mothering role expectation is associated with task performance as well as with role self-efficacy (Leerkes & Crockenberg, 2002). Lastly, successful task performance is known to be related to higher level of self-efficacy (Bandura, 1995). Therefore, this integrated theoretical model is useful to explain motherhood in general and infant feeding experience of mothers in particular.

Chapter III

Literature Review

Various Factors that Influence Mothering Role Expectations and Their Effects on Mothering Sense of Competence

Parenting sense of competence refers to personal judgements or feelings about one's ability to perform a role or tasks as parents. Parenting sense of competence, as a theoretical term, encompasses the attributes of satisfaction, efficacy, and confidence. (Borstein et al., 2003). More specifically, parenting self-efficacy based on the link between self-perceived task difficulty and outcome expectancies usually leads to the achievement of satisfaction and confidence in the ability to succeed at a task, as it implies a sense of parenting competence (Bandura, 1995). Despite the conceptual distinction among parenting sense of competence, parenting satisfaction, parenting self-efficacy, and parenting confidence (Montigny & Lacharité, 2005), these concepts are often used interchangeably in parenting studies (e.g. Coleman, & Karraker, 2003; Sevigny, & Loutzenhiser, 2010). Therefore, the current literature review of parenting sense of

competence includes the existing studies of parenting self-efficacy, satisfaction, and confidence.

In the existing literature, parenting sense of competence, especially mothers' sense of competence, is important since competent parenting influences parent's caregiving attitude, childrearing behavior, and child development (Borstein et al., 2003). For example, a higher level of parental role competence has been found to facilitate more sensitive and responsive parenting behavior and better mother-child attachment (Teti & Candelaria, 2002). On the other hand, a low level of parental role competence is associated with poor parenting behaviors, such as harsh and over-reactive parenting discipline style (Sanders & Wooley, 2005), and maternal psychological distress (Tambelli, Odorisio, & Lucarelli, 2014). Therefore, achieving a sense of parenting competence is considered a critical element which has significant impact on the quality of parenting behaviors and ultimately the child's psychological development (Sanders & Wooley, 2005).

Transition to motherhood involves significant changes in responsibilities to take care of an infant and adaptation to new skills, relationship, and environment. That is, becoming a mother involves salient changes in roles and relationship from an individual self as a woman to a caregiver of a baby as well as to a position of mother in the relationship with her partner and other family members. In addition, many different communities related to childcare, education, and health care come into play in the new life with baby. Thus, the previous studies found that various factors affected the perception of motherhood and the achievement of parenting sense of competence in the

transition to motherhood (Bornstein et al., 2003). The factors include mothers' socioeconomic background, previous experiences with child, maternal and infant health conditions, infant temperament, maternal distress (depression and anxiety), marital quality, family structure and function, supports from community and society, and social and cultural backgrounds (Bornstein et al., 2003; Koniak-Griffin et al, 2006; Mercer, 2004; Ngai, Chan, & Holroyd, 2011; Warren, 2005; Williams, Innis, Vogel, & Stephen, 1999). For example, mothers reported that the more feelings of preparedness for their infant care was associated with the more positive feelings of accomplishment in motherhood (Kapp, 1998).

More importantly, given that mothers primarily consider child's health and well-being, mothers doubt their mothering competence in child care when they are not able to maintain baby's health (Ngai et al., 2011). Mother's perception about child's temperament was also found to be significantly related to mothering competence (Porter & Hsu, 2003). For example, the mothers with temperamentally easy babies feel more efficacious in their ability to perform infant care. The quality of interaction between mother and baby including bonding also affects mother's experience with greater sense of mothering role competence (Mercer & Ferketch, 1994).

In addition, supports from family members, peers and health care providers are also important in negotiating mothering role expectations and the achievement of mothers' sense of competence. Intimate contacts with and assistance from family members, relatives, neighbors and friends were found to help enhancing maternal sense of competence through better performance of expected mothering roles (Mercer &

Ferketch, 1994). In particular, marital quality and emotional, appraisal, and instrumental support from spouses were strongly related to an increasing level of mothers' sense of competence (Warren, 2005). Postpartum care support (Niska, Snyder, & Lia-Hoagberg, 1998), necessary information and skills requiring for infant care provided by family members or health providers (Earle, 2002; Warren, 2005) and childbirth education classes (Thassri et al., 2000) helped to understand what to expect as mothers and enhance a level of maternal sense of competence in caring for themselves and their newborn infants.

In summary, findings suggest that mothers develop their mothering role expectations through multi-level factors, such as mothers' own beliefs about the self and motherhood, their child's temperament and developmental characteristics, and support from families, peers, and health providers, resulting in developing their maternal sense of competence (Coleman & Karraker, 2000; Ngai et al., 2011).

Various Factors that Influence Mothering Role Expectations and their Effects on Breastfeeding Experience

Infant feeding is a pivotal caregiving task, which is characterized as one of the first reciprocal interactions between mothers and their child and is directly related to their child's overall health and well-being (Papoušek, 2007; Tambelli et al., 2014). That is, infant feeding provides not only necessary nutrition to the child but also emotional attachment between mothers and their child by promoting to share affects and communication. Due to the recent medicalized, science based discourse about the benefits of breastfeeding, furthermore, mothers are especially concerned about 'what to

feed' as they relate infant feeding to good mothering practice (Andrews & Knaak, 2013). Therefore, mothers often identify that making decisions on appropriate feeding methods is one of the major concerns, which greatly affect their mothering experiences while taking care of their children (Kapp, 1998).

Based on the various nutritional, immunological, and developmental importance of infant feeding, the current society highlights the benefits of breastfeeding over formula feeding (Kramer et al., 2008; Salone et al., 2013; Yang et al., 2009). Due to the breastfeeding promotion campaign, many mothers recognized the notion of 'breast is best' which affected their breastfeeding initiation positively (Earle, 2002; Obeng, Emetu, & Curtis, 2015; O'Brien et al., 2008; Williams et al. 1999). However, mothers' breastfeeding experiences are influenced by mothers' role expectations on breastfeeding. These breastfeeding experiences and role expectations are also significantly influenced by various environmental factors. The effects of these role expectations on breastfeeding experiences vary depending on mothers' circumstances (Williams et al., 1999).

First of all, mothers' perception of sufficient breastmilk supply for their child influences mothers' overall positive breastfeeding experience (Otsuka, Dennis, Tatsuoka, & Jimba, 2008). That is, those who believed that they were able to provide enough breastmilk for the child were more likely to be more confident in breastfeeding and more positive about overall breastfeeding experience. Also, mothers' concerns about maternal health issues, and pain and fatigue also affect their breastfeeding practice (Williams et al., 1999). Mothers who have depression and anxiety tend to wean earlier than those without psychological issues (O'Brien et al, 2008), and depression among mothers was found to

be significantly related to mother and infant feeding interaction (Tambelli et al, 2014). More importantly, many mothers agreed that practical difficulties in breastfeeding, such as returning to work or taking care of older children, became the major reasons to choose formula feeding or early weaning (Williams et al., 1999). Finally, mothers' strong desire to recover their previous 'non-mother' identities as individuals was another factor that influence mothers' breastfeeding experience and their decision on formula feeding (Earle, 2002). Such costs as everyday routine of frequent breastfeeding and limited outings could make some mothers feel uncomfortable with breastfeeding so that they choose formula feeding or early weaning.

With regard to the relationship with baby, mother's faith in breastmilk's benefits was one of the most important factors that influenced mothers' positive breastfeeding experiences (O'Brien et al., 2008; Williams et al, 1999). That is, mothers who believed that breastmilk was good for their child's health and growth tended to breastfeed longer with confidence. In addition to immunological and nutritional benefits of breastfeeding, when mothers believed that breastfeeding strengthened mother-child bonding through skin-to-skin affectionate touch and conversation while feeding the child, they were more likely to have positive breastfeeding experience (Guyer, Millward, & Berger, 2012; Williams et al, 1999).

The role of family support is also critical in breastfeeding experience. For example, father's involvement, a desire for shared parenting, and marital satisfaction were highlighted as major contributors to encourage breastfeeding (Earle, 2002; Kim, 2010). In particular, mothers who reported active and positive spousal support perceived

higher level of self-efficacy in their ability to breastfeed than those reporting ambivalent and negative support from partners (Mannion, Hobbs, McDonald, & Tough, 2013). Healthcare providers, educational programs and breastfeeding friendly social policy were also known to be important for mothers to have positive breastfeeding experiences (Guyer et al., 2012). Even though mothers' breastfeeding decision making tends to be made earlier than they contact health professionals (Earle, 2002), public healthcare providers were found to be primary sources of informational support (Warren, 2005). Aggressive breastfeeding promotion and breastfeeding friendly environment have more likely encouraged more mothers to choose breastfeeding and perform longer (Williams et al, 1999). Due to the discrepancy between idealism and realism, however, feeding education was sometimes perceived as unrealistic overly focusing on techniques and rules (Hoddinott et al., 2012). Nevertheless, long term breastfeeding mothers were found to rely on practical and/or emotional support from their peers, especially when the mothers experienced difficulties (Guyer et al., 2012). In the specific context of immigration, Korean American mothers obtain informational and practical support from Korean websites, media, and their own social networks to overcome breastfeeding difficulties and socio-cultural barriers in American society (Lee & Bai, 2014; Seo, Kim, & Dickerson, 2014). In summary, the existing study findings suggest that mothers' experiences of breastfeeding are influenced by mothering role expectations that are formed by multiple ecological level factors, including mothers' personal concerns about themselves and their child, mother-child relationship, and family and community supports.

Mothering Role Expectations, Breastfeeding Experience and Mothering Sense of Competence

Previous studies have found that mothers' successful performance in infant care predicted a stronger sense of maternal competence. For example, familiarity with infant care due to previous experience (Coleman & Karraker, 2000), success in breastfeeding (Huang et al., 2004), and satisfying interaction and bonding with infants (Mercer & Ferketich, 1994) motivate greater sense of maternal competence. As self-efficacy theory suggests (Bandura, 1995), when mothers perceive that performing their expected mothering roles is not difficult and gain greater confidence in performing these role expectations, their parenting sense of competence increases. Especially, in an empirical research on 8 month postpartum mothers, Tarkka (2003) found that the mothers who were still breastfeeding their babies at 8 month showed the better maternal competence. Thus, the finding supported that successful and longer breastfeeding was associated with higher level of mothering competence.

The relationship between breastfeeding practice and the sense of good mothering is also more salient in the recent breastfeeding culture where mothers' risk consciousness vis-à-vis infant feeding is defined by the dominant, expert-guided, scientific-medical discourse (Knaak, 2010). Under the dominant infant feeding culture, recent studies found that mothers often come to conceive such binary disposition as 'breastfeeding and good mothering' versus 'formula feeding and bad mothering' (Lee, 2008; Williams et al., 2012). This phenomenon creates cultural pressure that emphasizes breastfeeding and negatively view formula feeding. As a result, for mothers, breastfeeding is expected and

success with breastfeeding becomes mothers' pride (Knaak, 2010). However, breastfeeding experience is compounded by the disconnection between mothers' expectations and many unforeseen or unregulated environmental factors, which, in turn, involves with the emotion of guilt (Spencer et al., 2012). When they fail or decide not to breastfeed their child, thus, mothers often have to endure guilt and failure in their mothering roles, and develop lower mothering sense of role competence (Taylor & Wallace, 2012). Therefore, actual breastfeeding experience of mothers may be significantly related to their mothering sense of competence as their feeling of success or failure in breastfeeding may influence the judgement of their ability in general infant care.

In summary, given that mothers are expected to perform certain mothering roles, these role expectations are developed through mothers' motherhood identities and their interactions with their child, family members, and community member. One of the major role expectations toward mothers is to breastfeed their child in the current society. These personal, families, communities, and cultural expectations toward breastfeeding may be strongly associated with mothers' sense of competence in their mothering experience. In addition, the actual breastfeeding performance may have a significant role in developing mother's sense of competence for those who are expected to breastfeed.

Chapter IV

The Current Study

The literature review suggests that mothering sense of competence and breastfeeding experience may be associated with mothering role expectation influenced

by multiple individual, infant, family, and community factors. Mothering sense of competence may also be influenced by mothers' actual breastfeeding experience. Therefore, the current study proposes the mediating effect of breastfeeding experience on the relationship between mothering sense of competence and mother's role expectations to breastfeed her child that are influenced by various ecological factors in the process of infant feeding decision making.

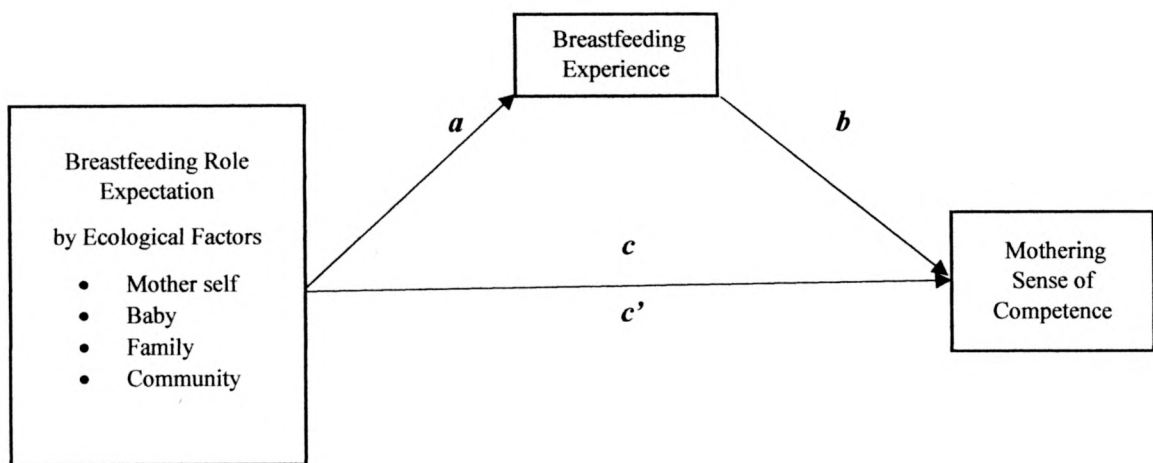


Figure 2. The testing model of the effects of ecological factors of breastfeeding role expectation on mothering sense of competence, and the mediating model of breastfeeding experience on the relationship.

Figure 2 presents the testing model grounded in symbolic interactionism and ecological theory described in figure 1. In the current model (figure 2), the theoretical concept of role expectation from figure 1 was specified as breastfeeding role expectation operationalized by various ecological levels of mother self, infant, family and community related factors. And, mother's perception about their breastfeeding experience (figure 2)

represented task performance (figure 1). Lastly, role self-efficacy (figure 1) was conceptualized as mothering sense of competence (figure 2).

As shown in the testing model, this study examines two research questions; first, if there is a significant relationship between mother's breastfeeding role expectation influenced by various ecological factors and mothering sense of competence (i.e. total effect c in figure 2), and second, if there is a mediating effect of breastfeeding experience on the relationship between mother's breastfeeding role expectation influenced by various ecological factors and mothering sense of competence (i.e. direct effect c' and indirect effect ab in figure 2). To answer these questions, the following hypotheses will be tested.

Hypothesis 1.

H1-1. Mother's self-identified breastfeeding role expectation is positively associated with the level of mothering sense of competence.

H1-2: Breastfeeding experience mediates the relationship between mother's self-identified breastfeeding role expectation and mothering sense of competence.

Hypothesis 2.

H2-1. Mother's breastfeeding role expectation based on the relationship with her baby is positively associated with the level of mothering sense of competence.

H2-2: Breastfeeding experience mediates the relationship between mother's breastfeeding role expectation based on the relationship with her baby and mothering sense of competence.

Hypothesis 3.

H3-1. Mother's breastfeeding role expectation based on the relationship with her family members is positively associated with the level of mothering sense of competence.

H3-2: Breastfeeding experience mediates the relationship between mother's breastfeeding role expectation based on the relationship with her family members and mothering sense of competence.

Hypothesis 4.

H4-1. Mother's breastfeeding role expectation based on the relationship with her community members is positively associated with the level of mothering sense of competence.

H4-2: Breastfeeding experience mediates the relationship between mother's breastfeeding role expectation based on the relationship with her community members and mothering sense of competence.

Chapter V

Method

Participants and Procedure

The current study was conducted with Korean American mothers. Despite the increasing number of Korean population in the U.S., infant feeding behavior among Korean American families in immigration context is little known in the existing studies. Even though the racial/ethnic disparities in breastfeeding practices were identified in the existing literature (Bai, Wunderlich, & Fly, 2011; Singh et al., 2007), dearth of research on Korean American immigrants hinders expanding the study to explicate the ways in

which their childrearing beliefs affect their infant feeding practice and parenting behavior.

Responding to the paucity and necessity, the current study used the data collected from Korean American mothers who currently reside in the United States and who are in postpartum period up to 18 months. The research participants were recruited from multiple Korean American websites in the United States that were most used among Korean women (e.g. missy USA, mizville etc.) The qualification of participants included mothers who were born in South Korea (i.e. first or 1.5 immigration generation) or born to their Korean parents, at least one of whom had Korean culture of origin, in the United States (i.e. second or higher immigration generations). The recruitment flyer was posted in the selected websites. The participants voluntarily participated in the on-line survey through the connected link from the flyer after agreeing to the informed consent form. Upon the completion and submission of the survey, the participants were offered a chance to win one of five \$50 gift cards. The survey responses were saved, coded, and analyzed through SPSS (version 22).

All participants ($N = 39$) were married and were currently breastfeeding at the time of survey or had breastfeeding experience in the past. The average age of mothers was 32.6 years old ($SD = 3.09$), and their babies were 8.1 months old on average ($SD = 5.02$). Nearly 63% of infants were first children. 46.2% of the participants were Protestant while 35.9% identified themselves as no religious affiliation. Most of the participants had bachelor's degree or higher education (97.5%). About one-third of the mothers (32.5%) worked full- or part-time and the average work hours per week was 33

hours ($SD = 11.82$). The median annual family income in 2014 was \$ 60,000. All the participants were first or 1.5 generation of Korean American immigrants except one U.S. born participant. And, they have lived in the U.S. for 8.38 years on average. The detailed demographic information is presented in Table 1-1 and 1-2.

Table 1-1.
Demographic Information of the Participants (N = 39)

Demographic Variables	Frequency	%
Marital status		
Married	39	100
Religion		
Protestant	18	46.2
Roman Catholic	7	17.9
None	14	35.9
Highest degree of education		
Bachelor's degree	26	66.6
Master's and Doctoral degree	12	30.8
High school degree	1	2.6
Currently work outside home?		
Yes	13	33.4
No	26	66.6
U.S. born?		
Yes	1	2.6
No	38	97.4
Survey language choice		
Korean	34	87.2
English	5	12.8

Table 1-2.

Demographic Information of the Participants (N = 39)

Demographic Variables	Mean	Median	SD	Range
Age (years)	32.62	33.00	3.09	26 - 40
Baby's age (months)	8.10	7.00	5.02	1 - 18
Work hours (per week)	33.08	40	11.82	10 - 40
Household annual income in 2014 (\$)	84212	60000	59864.30	15000 - 240000
Household size	3.29	3	1.01	2 - 6
Age when immigrated (years)	24.34	25.5	6.66	12 - 34

Measures

Breastfeeding role expectation by various ecological factors. To assess mothering role expectations toward breastfeeding, the scale that measures Korean mothers' expectation toward breastfeeding that influenced by various levels of ecological factors was used. This scale was developed by Bai and Lee (2014) based on a qualitative interview data specifically focusing on Korean American mothers' breastfeeding experience, consisting of four subscales: mother's self-identified breastfeeding role expectation, mother's breastfeeding role expectation based on the relationship with her child, mother's breastfeeding role expectation based on the relationship with her family members, and mother's breastfeeding role expectation based on the relationship with her community members.

The subscale of 'mother's self-identified breastfeeding role expectation (BFRE-Mother)' contained 11 items about mother's perception toward breastfeeding during her

pregnancy. The questionnaires asked to what extent the items were important to mothers in their breastfeeding decision making (e.g., “breastfeeding is good for my health”, “I do not have difficulty in outings when breastfeeding”). Participants were asked to rate the degree of importance of the statement in their decision making about breastfeeding on a 5-point Likert-type scale ranging from 1 (*not important at all*) to 5 (*very important*). This subscales had a reliable internal consistency (Cronbach’s $\alpha = .84$) in this study.

The subscale of ‘mother’s breastfeeding expectation based on the relationship with her baby (BFRE-Baby)’ consisted of 7 items related to mother’s perception toward the significance of infant related factors in mother’s breastfeeding decision making (e.g., “breastfeeding is good for bonding between my baby and myself”, “my baby gets the necessary nutrition when breastfed”). Each item in this subscale was rated on a 5-point Likert-type scale ranging from 1 (*not important at all*) to 5 (*very important*). Internal consistency of this scale was Cronbach’s $\alpha = .89$ in this study.

The subscale of ‘mother’s breastfeeding expectation based on the relationship with her family members (BFRE- Family)’ consisted of six items, measuring a level of encouragement for breastfeeding that a mother received from family members (e.g. “my husband encouraged breastfeeding”, “my mother encouraged breastfeeding”). The items were rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), where higher scores represented more encouragement from family members for mothers’ breastfeeding decision making. The reliability of this scale was Cronbach’s $\alpha = .86$).

Finally, the subscale ‘mother’s breastfeeding role expectation based on the relationship with her community members (BFRE- Community)’ measured a level of encouragement for breastfeeding that she received from community members (e.g. “my co-workers encouraged breastfeeding”, “my pediatrician encouraged breastfeeding”). Each item in this subscale was rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), where higher scores represented more encouragement from community members for mothers’ breastfeeding decision making. The internal consistency was good in this study (Cronbach’s $\alpha = .93$).

Breastfeeding experience. Participants answered a 33-item breastfeeding experience (BF-EX) scale developed by Bai and Lee (2014). This scale asked if their breastfeeding experience was easy or difficult depending on certain breastfeeding related situations. They rated the breastfeeding experience on a 5 point Likert scale (*very difficult* = 1; *very easy* = 5), where higher score represented that they felt breastfeeding was easy. Sample items were “breastmilk supply made my breastfeeding easy or difficult”, “baby’s adjustment to breastfeeding made my breastfeeding easy or difficult”, and “living in a breastfeeding friendly neighborhood made my breastfeeding easy or difficult”. Cronbach’s α for scores in this scale was .86.

Mothering sense of competence. The Parenting Sense of Competence Scale (PSC; Gibaud-Wallston & Wandersman, 1978) was employed to assess mother’s general sense of competence (MSC) in her motherhood experience. The original PSC, which consisted of 17 items and rated on a 6-point Likert-type scale was modified into 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) in consideration of

consistency with the other scales. Higher scores represented higher sense of competence in mothering. Among them, 10 items were reverse-coded. Sample items were “being a parent is manageable, and any problems are easily solved”, “I meet my personal expectations for expertise in caring for my child”, and “being a parent makes me tense and anxious”.

The PSC has been found to have a reliable internal consistency in previous studies (e.g., Cronbach’s $\alpha = .80$, Ohan, Leung, & Johnston, 2000). Convergent validity was also demonstrated by the links between parenting self-esteem assessed using the PSC and a variety of family functioning measures such as children behaviors, parental well-being, marital quality, and parenting style (Ohan et al., 2000; Rogers & Matthews, 2004). In the current study, Cronbach’s α for scores of the PSC was .64.

Demographic information. Each participant was asked to answer a list of demographic characteristics. These questions consisted of basic sociodemographic information about mother herself, such as age, marital status, family income, education level, religion, occupation, household size, year of the U.S. entry, reason of immigration, and language commandment. Mothers was also asked to report their child(ren)’s information including age, number of siblings, and physical health condition of growth rate and illness.

Data Analysis

Exploratory factor analyses were conducted to examine the factor structure underlying each of the four scales measuring ecological variables influencing breastfeeding role expectation and the scale of breastfeeding experience (BF-EX). For the

scale of BFRE- Mother, an initial analysis generated eigenvalues for each factors. Four factors of BFRE- Mother had eigenvalues over Kaiser's criterion of 1 and in combination explained 74.4% of the variance. Construct validity of the scale of BFRE-Baby was also affirmed by factor analysis using an eigenvalue of 1.0 to determine nontrivial factors, which yielded two factors. The factor structure captured 82.2% of the variances of baby related factors in breastfeeding role expectation. Factor analysis on BFRE-Family and BFRE-Community scales also indicated good construct validity as one and two factors explained 60.4% and 83.9% of the variances respectively. In addition, as for the scale of breastfeeding experience, factor analysis yielded four factors related to mother, infant, family, and community, which explained 100% of the variance.

PROCESS (Hayes, 2013) was conducted to find the mediating effect of breastfeeding experience on the relationship between each ecological factors influencing mother's breastfeeding role expectations and mothering sense of competence. In specific, the mediation analysis assessed the following associations: (1) whether the ecological factors contribute to the variance of the variable of mothering sense of competence (total effect-H1, H2, H3, & H4), (2) whether the ecological factors contribute to the variance of the mediator (i.e. breastfeeding experience) and whether the mediator contributes to the variance of the mothering sense of competence (indirect effect- H1-2, H2-2, H3-2, & H4-2), and (3) whether the ecological factors continued to predict the mothering sense of competence with the mediator in the model (direct effect- H1-1, H2-1, H3-1, & H4-1) (Field, 2013).

Four ecological factors of the current study were tested separately in the mediator models. For each proposed model, PROCESS generated total effect (c), direct effect (c'), and indirect effect (ab) estimated by bootstrapping (as shown in Figure 2). In the current study, the indirect effects were tested with 10,000 bootstrap samples and a bias-corrected 95% bootstrap confidence interval (C.I.). The results of indirect effects (ab) analysis from bootstrapping were used to determine whether each ecological factor influenced mothers' breastfeeding role expectation was mediated by breastfeeding experience in its effect on mothering sense of competence. That is, the confidence interval which did not cross 0 indicated the existence of indirect effect.

Chapter VI

Results

Correlation Analysis

Table 2 shows the inter-variable correlations with means and standard deviations for all the tested variables. The results showed that all the predictors except the baby related variable (BFRE-Baby) and the mediator (BF-EX) were statistically significantly associated with the outcome variable of mothering sense of competence at .05 and .01 levels. Mothering sense of competence (MSC) was most strongly associated with breastfeeding experience ($r = .71, p < .01$). Interestingly, community related variable (BFRE-Community) was negatively associated with all the variables that had statistically significant correlation coefficient ($r = -.52, p < .01$). In addition, baby related variable (BFRE-Baby) was only statistically significantly correlated with breastfeeding experience ($r = .41, p < .05$).

Table 2.
Means, SDs, and Inter-correlations among Variables

Variables	1	2	3	4	5	6
1 Mother self (BFRE-Mother)	-					
2 Baby (BFRE-Baby)	.45**	-				
3 Family (BFRE-Family)	.33*	.24	-			
4 Community (BFRE-Community)	-.32*	.10	-.32*	-		
5 Breastfeeding Experience (BF-EX)	.45**	.41*	.58**	-.34*	-	
6 Mothering Sense of Competence (MSC)	.34*	.11	.63**	-.52**	.71**	-
<i>M</i>	3.61	4.10	3.48	2.88	3.31	3.31
<i>SD</i>	.78	.96	.64	.77	.78	.422

* $p < .05$, ** $p < .01$

Table 3.
Total Effect and Direct Effect of Ecological Variables on Mothering Sense of Competence (MSC)

Ecological Variables	Effect	SE	<i>t</i>	<i>p</i>
Mother self (BFRE-Mother)				
Total effect on MSC	.25	.10	2.51	.01
Direct effect on MSC	.07	.08	.75	.45
Baby (BFRE-Baby)				
Total effect on MSC	.09	.09	.98	.33
Direct effect on MSC	-.08	.07	-1.06	.29
Family (BFRE-Family)				
Total effect on MSC	.44	.09	4.75	.000
Direct effect on MSC	.24	.09	2.42	.02
Community (BFRE-Community)				
Total effect on MSC	-.29	.08	-3.55	.001
Direct effect on MSC	-.18	.06	-2.72	.01

Table 4.

Indirect Effect of Ecological Variables on Mothering Sense of Competence

Ecological Variables	Effect	SE (boot)	Lower limit confidence interval	Upper limit confidence interval
Mother self (BFRE-Mother)	.19	.09	.04	.44
Baby (BFRE-Baby)	.16	.08	.04	.38
Family (BFRE-Family)	.20	.08	.06	.40
Community (BFRE-Community)	-.11	.07	-.28	.01

Mediation Analysis

Table 3 and 4 summarize total, direct, and indirect effects among the variables. The results by mediating model based on each variable are presented below.

Hypothesis 1. Figure 3 shows the results for the variable of mother's self-identified breastfeeding role expectation (BFRE-Mother). In the total effects model without mediation, BFRE-Mother was positively associated with mothering sense of competence ($c = .25, p = .01$). In the direct effect model with breastfeeding experience as a mediator, however, BFRE-Mother was no longer significantly associated with mothering sense of competence (MSC). There was a significant indirect effect of BFRE-Mother on mothering sense of competence through breastfeeding experience, $ab = 0.19$, BCa CI [0.04, 0.44]. The result indicated 19% of indirect effect of BFRE-Mother on MSC, and the indirect effect size of total effect was 74% which represented a large effect.

Overall, mother self variable was not a significant predictor for mothering sense of competence but fully mediated by breastfeeding experience.

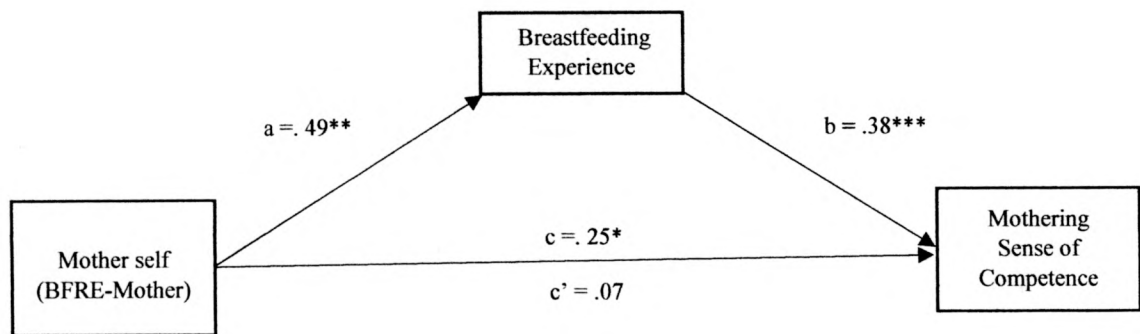


Figure 3. Mediation model of breastfeeding experience in the relationship between mother's self-identified breastfeeding role expectation and mothering sense of competence.

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

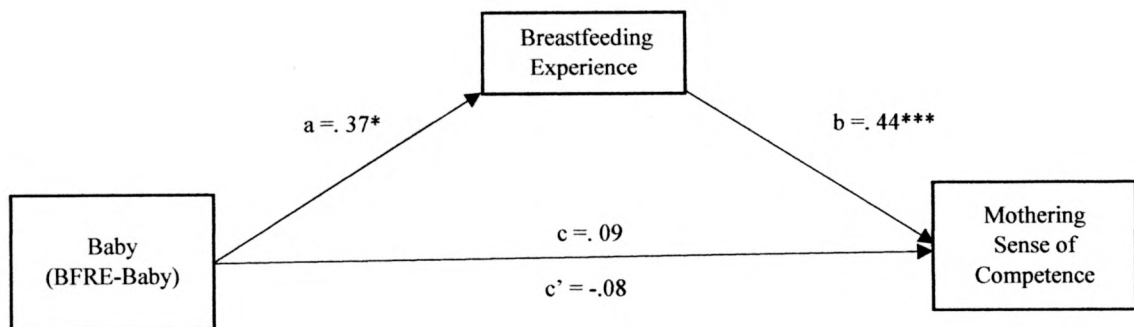


Figure 4. Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with infant and mothering sense of competence.

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Hypothesis 2. As shown in figure 4, infant related factor in mother's breastfeeding role expectation based on the relationship with her baby (BFRE-Baby) did not have significant total and direct effects on mothering sense of competence (MSC). However, there was a significant indirect effect of BFRE-Bbay on mothering sense of competence through breastfeeding experience, $ab = 0.16$, BCa CI [0.04, 0.38]. This represents a large effect size of 35% in total effect while the result indicated 16% of indirect effect of BFRE-Baby on MSC. That is, baby related variable in breastfeeding role expectation (BFRE-Baby) was significantly associated with breastfeeding experience as a mediator, and indirect effect analysis from bootstrapping indicated a mediation effect.

Hypothesis 3. Figure 5 shows the results of the mediation analysis for the variable of mother's breastfeeding role expectation based on the relationship with family members (BFRE-Family). In the total effect model without mediation, the BFRE-Family was found to be highly associated with mothering sense of competence ($c = .43, p < .0001$). In the direct effect model with breastfeeding as a mediator, the family related factor had a significant positive association with mothering sense of competence ($c' = .23, p = .02$). The finding was confirmed by inspection of the indirect effect from bootstrapping (Table 4). There was a significant indirect effect of family related variable on mothering sense of competence through breastfeeding experience, $ab = 0.20$, BCa CI [0.06, 0.40]. The result indicated 20% of indirect effect of BFRE-Family on MSC, and the indirect effect size of total effect was 46%. Thus, breastfeeding experience mediated the effect of family related variable (BFRE-Family) on mothering sense of competence.

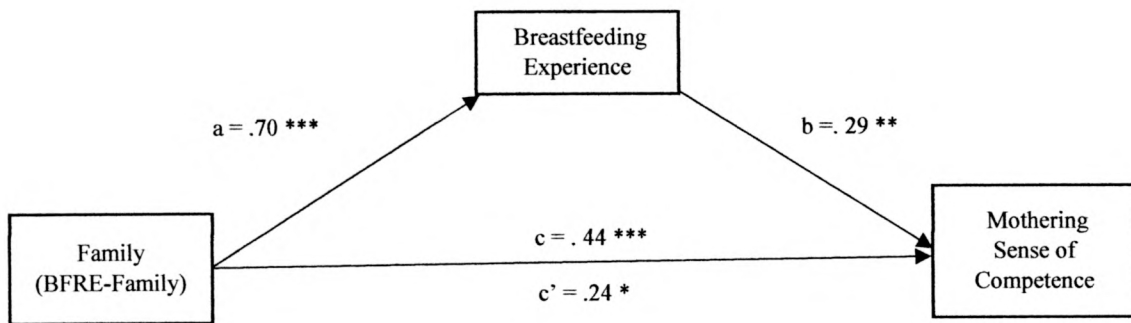


Figure 5. Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with family members and mothering sense of competence.

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

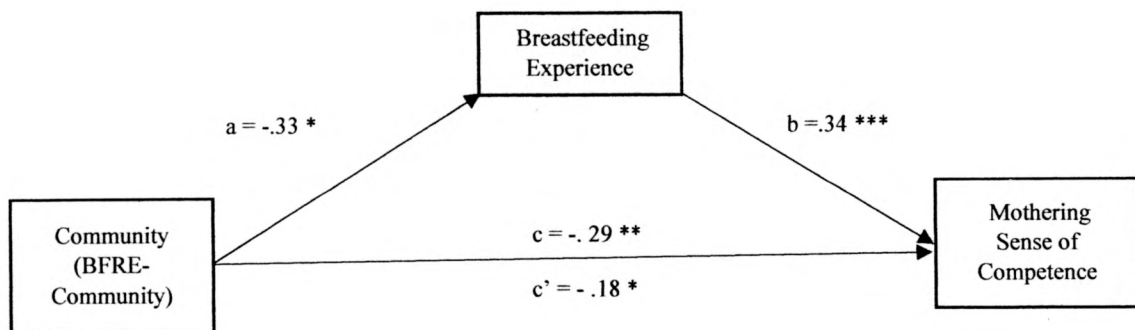


Figure 6. Mediation model of breastfeeding experience in the relationship between mother's breastfeeding role expectation based on the relationship with community members and mothering sense of competence.

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Hypothesis 4. As for the total effect shown in figure, mother's breastfeeding role expectation based on the relationship with community members (BFRE-Community) had a significant negative association with mothering sense of competence ($c = -.29, p$

= .001). In the direct effect with a mediator (i.e. breastfeeding experience), the community related factor had a significantly negative association with mothering sense of competence ($c' = -.18, p = .01$). In the indirect effect analysis from bootstrapping, however, indicated there was no mediation by breastfeeding experience since the confidence interval contained 0; $ab = -0.11$, BCa CI [- 0.28, 0.01]. Thus, community related variable (BFRE-Community) was a predictor of mothering sense of competence, but was not significantly mediated by breastfeeding experience in the relationship with mothering sense of competence.

Chapter VII

Discussion

The current study demonstrated that the various ecological variables that forms mothers' breastfeeding role expectations, excluding baby related variable, were significantly correlated with mothering sense of competence. In addition, breastfeeding experience had the highest correlation with mothering sense of competence among the tested variables. Breastfeeding experience, especially, played a statistically significant role as a mediator resulting in changing the effects of each ecological variables on mothering sense of competence. These results contribute to the previous literature by explaining further about how specific ecological factors (i.e. mother self, infant, family, and community) can lead to mothering competence (Bornstein et al., 2003).

More specifically, first of all, mother's self-identified breastfeeding role expectation played an important role in having positive breastfeeding experiences and developing a higher mothering sense of competence. The mothers' self-identified role

expectations to breastfeed their babies reflects the importance of individual self in breastfeeding practice and personal belief and attitude toward breastfeeding. According to the result of the current study, mother's consideration of herself in breastfeeding role was statistically significantly associated with their mothering sense of competence. However, when their actual breastfeeding experience was taken into account as a mediator, the significant effect of mother's self-identified role expectation to breastfeed on their mothering sense of competence disappeared. This result may be explained by the cultural specificity in breastfeeding and childrearing practice among Korean American mothers. Traditional East Asian mothers' child rearing attitudes were mainly influenced by Confucianism, which emphasized the importance of mothers' child rearing responsibilities for the sake of their families. Thus, their self-identified role expectation in mothering can be understood in terms of the notion of 'sacrifice' for infant's well-being (Ngai et al., 2011). In addition, East Asian mothers often expressed a lack of confidence when they experienced difficulties in infant care skills and breastfeeding. They also believed that such unsatisfactory performance reflected the poor abilities in mothering (Leung, Arthur, & Martinson, 2005). Therefore, in the current study, mothers' recognition of success in breastfeeding may represent the success in accomplishing their mothering role expectations and promote their mothering sense of competence.

The findings in this study suggest that mothers who make the positive relationship with their babies and take their babies' well-being the priority in their mothering role expectations are less likely to experience difficulties in breastfeeding. However, putting their babies as the priority in their role expectations did not show any significant variance

in their mothering sense of competence. This irrelevance of baby related factors in mothering sense of competence is somewhat different from the previous studies which have found that infants' characteristics (e.g. gender and temperament) and well-being through breastfeeding (e.g. nutrient and growth), significantly influence mothers' parenting experiences. For example, mothers who raised a child with positive temperament reported higher estimates of self-efficacy and considered themselves more competent with parenting (Raver & Leadbeater, 1999). However, some studies also reported that the effect of infants' temperament on mother's parenting confidence in infant care only lasted during the three month postpartum period (Porter & Hsu, 2003). In addition, even though children influence parental beliefs and behaviors, other study findings also showed that infant related characteristics were less predictive of parenting self-efficacy than other characteristics of parents themselves and some characteristics of caregiving context (Bornstein et al., 2003). Grounded on these previous findings, therefore, the result of this study can be interpreted that mothers who establish reasonable role expectations based on infants' characteristics may have easier transitioning to the actual breastfeeding experiences when their babies are born. In addition, setting up reasonable role expectations in breastfeeding based on the relationship with babies may help mothers not to blame their infants for their low sense of mothering competence. It seems that mothers do not evaluate their own sense of mothering competence based on how their infants react to breastfeeding.

The current study findings also suggest the mediator model confirmed the previous studies on the important role of family members in having positive

breastfeeding experiences and promoting a mothering sense of competence (Guyer et al., 2012; Warren, 2005). That is, the mothers who had more encouragement from family members felt their breastfeeding experience easier, and showed higher level of sense of competence in their mothering job. Thus, the relationship between family encouragement and positive judgement of mothering competence was mediated by their positive experience in breastfeeding. This result is similar to previous findings. That is, when mothers receive practical and emotional supports from partners, they are more likely to sustain breastfeeding for a longer period (Guyer et al., 2012). Positive and active support by partners are more likely to promote breastfeeding self-efficacy (Mannion et al., 2013). Mothers' who receive appraisal support from husband and maternal mothers are more likely to gain confidence in overall infant care practice (Warren, 2005). Even though the current study did not measure the types and degrees of support, the higher encouragement of breastfeeding by family members could be interpreted by mothers as higher emotional and appraisal supports, which could lead to feel ease on breastfeeding practice. In addition, this encouragement may have helped her to develop role expectations as a mother. The important role of family encouragement can be more salient among Korean American mothers as they are more likely to feel intimate bonding with their husband/partner during childbirth and childrearing in the immigration context where they live away from other family members (Lee, 2013). Cultural difference and language barrier in American society, especially, make the mothers more relying on the relationship with their husbands/partners (Lee, 2013; Seo et al., 2014). As a result, as shown from the findings, the encouragement from family members could influence

positive experience in breastfeeding which, in turn, make mothers feel a sense of accomplishments of the expected mothering roles and develop a higher level of sense of mothering competence among Korean American mothers.

Some study findings suggested that community supports contributed to mothers' self-efficacy and confidence in infant care. For example, necessary information and skills requiring for infant care provided by peers or healthcare providers (Earle, 2002; Warren, 2005) and childbirth education classes (Thassri et al., 2000) were found to enhance a level of maternal sense of competence in caring for themselves and their newborn infants. However, in the current study, interestingly, differing from the positive effect of breastfeeding role expectation from family members, role expectation of breastfeeding encouraged by community members showed negative relationship with the mothers' breastfeeding experience and mothering sense of competence. This result was somewhat contradicting with existing literature which emphasized the importance of community support in parenting and breastfeeding practice (Warren, 2005). The result can be explained related to social pressure to breastfeed. Community members' expectation of breastfeeding may act as a social pressure to mothers. According Spencer and others (2012), mothers often reported that the cultural discourse promoted by health and breastfeeding specialists in the current society, such as the message of 'breast is best,' discouraged mothers to feed babies with other than breast milk. The emphasis on breastfeeding may cause maternal 'guilt' even though mothers experience difficulties in breastfeeding and have to supplement with formula or stop breastfeeding (Taylor & Wallace, 2012; Williams et al., 2012). That is, community members' encouragement for

breastfeeding may become social pressure to rather than support for mothers. Their encouragement also bring some negative judgement about mothers' ability in infant care in case that they are not breastfeeding and have lower their mothering competence.

Chapter VIII

Conclusion

The current study examined the influence of ecological variables in breastfeeding decision making on mothers' sense of competence in infant care, and the mediating effect of breastfeeding experience of mothers on the relationship between breastfeeding role expectations and mothering sense of competence. Findings suggested that each ecological variable influencing Korean American mother's breastfeeding role expectation was differently related to mothering sense of competence, and breastfeeding experience had an important role as a mediator in the relationship between mothers' breastfeeding role expectation and mothering sense of competence. Based on the current findings, the following contributions and limitations of this study can be addressed. Finally, future implications for research and practice will be discussed.

Contributions

Based on the integrated theoretical framework of symbolic interactionism and ecological theory, first of all, the current study tested the relationship between mothers' breastfeeding role expectation influenced by various ecological levels of mother, baby, family, and community and mothering sense of competence. The integrated theoretical framework was useful to explicate mothers' perceptions on their breastfeeding role by ecological variables and to explain the way in which breastfeeding experience as task

performance was associated with the role expectations and mothering sense of competence. Also, the current study demonstrated the important role of breastfeeding experience as a mediator in the relationship between the ecological variables consisting of mothers' breastfeeding role expectations and mothering sense of competence in infant care.

More importantly, while the findings of this study confirmed or partially supported the previous studies on breastfeeding practice and mothering sense of competence, the current study addressed some cultural aspects in breastfeeding practice among Korean American mothers. In specific, the cultural dimensions of breastfeeding practice were found to be grounded in the current breastfeeding discourse promoted by medical/scientific research and the Asian cultural attitudes toward infant care among Korean American mothers in the immigration context. In other words, the socio-cultural pressure of risk management in child care and the perceived centrality of breastfeeding in infant feeding come into play in the formation of mother's breastfeeding role expectation, and the breastfeeding role expectation is also affected by the culturally expected position as a mother in family. The cultural dimension of breastfeeding role expectation, in turn, is closely related to the judgement of mothering competence and feeling of confidence in infant care, which are again perceived in the cultural context. With regard to Korean American mothers, in particular, they may be expected to hold a strong sense of responsibility towards family members, which is allegedly influenced by Confucianism. Under the influence of Confucianism, as observed among East Asian mothers, women are expected to take the roles as 'a good wife as well as loving mother' (Park & Chesla,

2007). When they are not able to meet the expectation, the mothers were found to suffer from depressive symptoms with feelings of guilt, shame, and failure, which are negatively associated with self-confidence and role competence as a mother (Chan et al., 2009; Leung et al., 2005).

Finally, using the integrated theoretical framework of symbolic interactionism and ecological theory, therefore, the current study on Korean American mothers statistically proved the social constructivist perspectives on the relationship between breastfeeding role expectation, breastfeeding experience and mothering sense of competence in the culturally specific context of immigration. Especially, the analyses of mediating effects of breastfeeding experience between mothers' role expectation and mothering sense of competence contributed to the existing research on breastfeeding culture which have been mostly based on qualitative research data(Andrews & Knaak, 2013; Lee, 2008).

Limitations

The current study has limitations in terms of research method. First of all, the current study used on the data collected through on-line survey. The on-line survey method affected the size and characteristics of the sample with limiting the participants only to the Internet users and, more specifically, to the visitors of Korean American community websites where the participants were recruited. Thus, the small sample size could influence the results of the current study as data analysis might not capture more significant relationship and effects among the variables. In addition, Korean American mothers who belong to second and later generation and rarely use the Korean American websites were not included in the current study. Secondly, as mentioned in the

discussion on the effects of family and community related variables, the current study did not measure the detailed types and degree of supports from family and community members. For the future research, therefore, the limitation of this study suggests the assessment of support types and resources that mothers appreciate in their breastfeeding and mothering will clarify why specific factors are related to breastfeeding experience and mothering sense of competence. Lastly, with treating mothers' breastfeeding role expectation as a latent variable, the current study examined only the separated relationship between each ecological variable and mothering sense of competence. Such separated analysis by ecological variables may overlook a complex and dynamic relationship among variables. Thus, advanced analytical strategy such as structural equation modeling (SEM) is expected to enable to test comprehensive effects of the mediating model.

Implications

Despite the limitations, explaining breastfeeding practice and its effects on mothering sense of competence from the cultural perspective has nuanced implications in terms of research and practice. As far as this study responded to racial/ethnic disparity in the studies of immigration families, the findings suggest further cross-cultural studies comparing breastfeeding practices of various ethnic groups in American society. Especially, the cultural connotation that health practices (e.g. breastfeeding) of immigrant mothers are built on their cultural background, beliefs, and socioeconomic status within socio-political contexts where they are situated as a result of immigration (Barber, Abernathy, Steinmetz, & Charlebois, 1997; Bernaix, 2000) can be expanded to the

research on the simultaneous interaction between the medical/scientific discourse and breastfeeding experience in practice. According to Chen (2010), for example, Chinese Canadian immigrant mothers were found to believe that breastfeeding is a natural duty and responsibility embedded in the traditional Chinese cultural notions of 'harmony' of nature and environment while they believed that concepts of breastfeeding were associated with Western medical thought, traditional Chinese yin-yang theory and personal experiences. Also, as pointed out in the limitation, multivariate analysis on mothers' breastfeeding role expectation considering all the ecological variables will provide further holistic explanation on the effects of breastfeeding experience.

In addition, the cultural perspective on breastfeeding experience and mothering sense of competence in infant care has practical implication, which suggests culturally specific support and intervention in breastfeeding and infant care among Korean American mothers. In specific, considering the importance of breastfeeding experience in mothering sense of competence, multi-dimensional environmental aspects of breastfeeding behavior revealed in this study indicate that more realistic and concrete supports (e.g. bilingual postpartum service and more comprehensive education program for father's involvement etc.) are required to ease their difficulties Korean American immigrant mothers face in breastfeeding practice.

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Appendix A

Measures

Appendix A1: Mother Self and Infant in Breastfeeding Role Expectation

Important Factors to Consider When Deciding to Breastfeed before Giving Birth

The following statements address, in general, important factors that mothers consider when they make the decision to breastfeed. Please indicate the degree of importance of the following statements to your breastfeeding decision making before giving birth.

Mother's Self-Identified Breastfeeding Role Expectation

1	I have sufficient breastmilk.	1	2	3	4	5	N/A
2	I am able to easily know how much breastmilk my baby eats.	1	2	3	4	5	N/A
3	breastfeeding is good for bonding between me and my baby.	1	2	3	4	5	N/A
4	breastfeeding is good for my health.	1	2	3	4	5	N/A
5	breastfeeding is good for weight loss after delivery.	1	2	3	4	5	N/A
6	I do NOT have physical health issues.	1	2	3	4	5	N/A
7	I do NOT have postpartum depression.	1	2	3	4	5	N/A
8	breastfeeding does NOT make my body shape bad.	1	2	3	4	5	N/A
9	I do NOT lack sleep when breastfeeding.	1	2	3	4	5	N/A
10	I do NOT have difficulty in outings when breastfeeding.	1	2	3	4	5	N/A
11	I do NOT have to take care of older children.	1	2	3	4	5	N/A

1 = Not Important At All; 2 = Less Important; 3 = Neutral; 4 = Somewhat Important; 5 = Very Important; N/A = Not Applicable

Mother's Breastfeeding Role Expectation Based on the Relationship with Infant

I will breastfeed my baby, if							
1	my baby prefers breastmilk over formula.	1	2	3	4	5	N/A
2	my baby prefers direct nursing over bottles.	1	2	3	4	5	N/A
3	my baby has a milk allergy/intolerance.	1	2	3	4	5	N/A
4	my baby sleeps through the night when breastfed.	1	2	3	4	5	N/A
5	my baby quickly gets used to breastfeeding.	1	2	3	4	5	N/A
6	my baby is healthy when breastfed.	1	2	3	4	5	N/A
7	my baby gets the necessary nutrition when breastfed.	1	2	3	4	5	N/A

1 = Not Important At All; 2 = Less Important; 3 = Neutral; 4 = Somewhat Important; 5 = Very Important; N/A = Not Applicable

Appendix A2: Others' Thoughts about Breastfeeding during My Pregnancy

The following statements address, in general, how your family, friends, and significant others think about breastfeeding during your pregnancy. Please indicate how much you agree or disagree with each of the following statements.

Mother's Breastfeeding Role Expectation Based on the Relationship with Family Members

When I am/was pregnant with this baby, _____ encourage(d) me to breastfeed my baby.							
1	the most important people in my life	1	2	3	4	5	N/A
2	my husband (partner)	1	2	3	4	5	N/A
3	my mother	1	2	3	4	5	N/A
4	my mother-in-law	1	2	3	4	5	N/A
5	my sisters (in-law)	1	2	3	4	5	N/A
6	other family members	1	2	3	4	5	N/A

1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree; N/A = Not Applicable

Mother's Breastfeeding Role Expectation Based on the Relationship with Community Members

When I am/was pregnant with this baby, _____ encourage(d) me to breastfeed my baby.							
1	my friends	1	2	3	4	5	N/A
2	Korean immigrant mothers like me	1	2	3	4	5	N/A
3	others (co-workers, other mothers, religious group members etc.)	1	2	3	4	5	N/A
4	my pediatrician	1	2	3	4	5	N/A
5	my OBGYN	1	2	3	4	5	N/A
6	my nurses	1	2	3	4	5	N/A
7	my lactation consultant	1	2	3	4	5	N/A
8	my postpartum care specialists (e.g., massage therapists, doula (San Hu Jo Ri Sa) etc.)	1	2	3	4	5	N/A

1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree; N/A = Not Applicable

Appendix A3: Breastfeeding Experiences

Please indicate how much each of the following factors has made your breastfeeding experience difficult or easy.

has made my breastfeeding experiences with this baby difficult / easy.							
1	My baby's breastmilk preference over formula	1	2	3	4	5	N/A
2	My baby's direct nursing preference over bottles	1	2	3	4	5	N/A
3	My baby's milk allergy/intolerance	1	2	3	4	5	N/A
4	Being able to make my baby sleep through the night	1	2	3	4	5	N/A
5	My baby's quick adjustment to breastfeeding	1	2	3	4	5	N/A
6	Learning that my baby was healthy	1	2	3	4	5	N/A
7	Learning that my baby was getting the necessary nutrition	1	2	3	4	5	N/A
8	Being able to produce sufficient breastmilk	1	2	3	4	5	N/A
9	Developing a bond between my baby and myself	1	2	3	4	5	N/A
10	Experiencing that breastfeeding was good for my health	1	2	3	4	5	N/A
11	Experiencing that breastfeeding helped my weight loss after delivery	1	2	3	4	5	N/A
12	Feeling good when breastfeeding	1	2	3	4	5	N/A
13	Feeling proud of myself when breastfeeding	1	2	3	4	5	N/A
14	Getting access to postpartum care at home	1	2	3	4	5	N/A
15	Living in a breastfeeding friendly neighborhood	1	2	3	4	5	N/A
16	Breastfeeding friendly policies at my workplace (e.g. insurance, part time option, maternal leave, pump rental, lactation room etc.)	1	2	3	4	5	N/A
17	Close distance to my workplace	1	2	3	4	5	N/A
18	Flexible work hours	1	2	3	4	5	N/A
19	Working part time	1	2	3	4	5	N/A
20	Working full time	1	2	3	4	5	N/A
21	Pumping and feeding in public	1	2	3	4	5	N/A
22	Carrying a pump	1	2	3	4	5	N/A
23	Refrigerating the pumped milk	1	2	3	4	5	N/A
24	Limiting outings	1	2	3	4	5	N/A
25	Receiving conflicting advice from others	1	2	3	4	5	N/A
26	Not knowing how much breastmilk my baby eats	1	2	3	4	5	N/A
27	Feeding the baby at night	1	2	3	4	5	N/A
28	Lacking sleep	1	2	3	4	5	N/A
29	Dealing with fatigue	1	2	3	4	5	N/A
30	Experiencing that breastfeeding made my body shape bad	1	2	3	4	5	N/A
31	Dealing with postpartum depression	1	2	3	4	5	N/A
32	My physical health issues	1	2	3	4	5	N/A
33	Feeling guilty when I can (could) NOT breastfeed	1	2	3	4	5	N/A

1 = Very Difficult; 2 = Somewhat Difficult; 3 = Neutral; 4 = Somewhat Easy; 5 = Very Easy;
N/A = Not Applicable or No Breastfeeding

Appendix A4: Mothering Sense of Competence

The following statements address, in general, how you feel about yourself as a mother when you are taking care of this baby. Please indicate how much you agree or disagree with each of the following statements.

1	The problems of taking care of a baby are easy to solve once you know how your actions affect your child; that is an understanding I have acquired.	1	2	3	4	5	N/A
2	Even though being a parent could be rewarding, I am frustrated now while my baby is at his/her present age.	1	2	3	4	5	N/A
3	I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5	N/A
4	I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5	N/A
5	My mother was better prepared to be a good mother than I am.	1	2	3	4	5	N/A
6	I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.	1	2	3	4	5	N/A
7	Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5	N/A
8	A difficult problem in being a parent is not knowing whether I'm doing a good job or a bad one.	1	2	3	4	5	N/A
9	Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	N/A
10	I meet by own personal expectations for expertise in caring for my baby.	1	2	3	4	5	N/A
11	If anyone can find the answer to what is troubling my baby, I am the one.	1	2	3	4	5	N/A
12	My talents and interests are in other areas, not being a parent.	1	2	3	4	5	N/A
13	Considering how long I've been a mother, I feel thoroughly familiar with this role.	1	2	3	4	5	N/A
14	If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent.	1	2	3	4	5	N/A
15	I honestly believe I have all the skills necessary to be a good mother.	1	2	3	4	5	N/A
16	Being a parent makes me tense and anxious.	1	2	3	4	5	N/A
17	Being a good mother is a reward in itself.	1	2	3	4	5	N/A
18	I feel guilty for not being a good mother.	1	2	3	4	5	N/A

1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree; N/A = Not Applicable

Appendix A5: Demographic Information

General Information about You and Your Family

In this section, we are interested in listening to general information about yourself and your family.

This information is very important to make this survey useful.

Please complete all the questions and provide the correct information for each of the following questions.

1. What is your birthday?

MM	DD	YYYY

1. What is your religion?

	None
	Roman Catholic
	Protestant
	Buddhist
	Other

2. What is the highest degree of education that you have attained?

	Less than high school Degree
	High school Degree
	Community College Degree
	Bachelor's Degree
	Master's Degree
	Doctoral Degree
	Other

3. What is your current marital status?

	Never married
	Widowed
	Divorced
	Separated
	Married
	Committed relationship

1. Do you currently work outside home?

	Yes
	No

- 5 -1. If yes, how many hours do you work per week?

Hours

5 - 2. What is your current occupation? (If you have more than one job, please also indicate the highest income source.)

Answer

5 - 3. What is the zip code of your workplace?

Answer

6. What is the approximate 2014 annual income before taxes of your household?

Answer

7. What is the zip code of your home address?

Answer

8. How many people live in your current household?

Answer

9. List all the people who live in your household on a regular basis. (Please mention them by relation only; e.g. husband, grandmother, or son)

Answer

Immigration Information about You and Your Family

In this section, please tell us about your immigration experiences in the U.S. This information is very important to make this survey useful. Please complete all the questions and provide the correct information for each of the following questions.

1. Were you born in the United States?

	Yes
	No

1 - 1. When did you come (immigrate) to America?

MM	YYYY

1 - 2. Who did you come with to America? (Please check all that apply)

	By myself
	My parents
	My spouse (partner)
	My children
	Other

1 - 3. Why did you decide to come (immigrate) to America? Among those reasons, what was the MOST IMPORTANT reason for your decision?

Answer

2. How comfortable are you using English and Korean language in daily basis?

	Very Uncomfortable	Uncomfortable	Comfortable	Very Comfortable
Speaking English				
Reading English				
Writing English				
Listening English				
Speaking Korean				
Reading Korean				
Writing Korean				
Listening Korean				

Appendix B

IRB Approval Letter



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Fax: 973-655-3022
www.montclair.edu/irb
reviewboard@mail.montclair.edu

August 31, 2015

Dr. Yeon Bai
Montclair State University
College of Education and Human Services
Department of Health and Nutrition Sciences
Montclair, NJ 07043

Re: IRB Number: **001535**

Project Title: **Examination of infant feeding decision-making and ecological factors within the Korean immigration context**

Dear Dr. Bai:

After an expedited 7 review, Montclair State University's Institutional Review Board (IRB) approved this study's amendment on **August 28, 2015** (submitted on August 25, 2015) and to remove the following personnel from your research team: Sujeong Im. It is valid through the current approved period and will expire on **July 16, 2016**.

This study was closed to enrollment and is now back to open enrollment as of August 28, 2015.

Before requesting amendments, extensions, or project closure, please reference MSU's IRB website and download the [current forms](#).

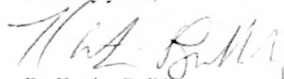
Should you wish to make changes to the IRB-approved procedures, prior to the expiration of your approval, submit your requests using the Amendment form.

For Continuing Review, it is advised that you submit your form 60 days before the month of the expiration date above. If you have not received MSU's IRB approval by your study's expiration date, **ALL** research activities must STOP, including data analysis. If your research continues without MSU's IRB approval, you will be in violation of Federal and other regulations.

After your study is completed, submit your Project Completion form.

If you have any questions regarding the IRB requirements, please contact me at 973-655-5189, reviewboard@mail.montclair.edu, or the Institutional Review Board.

Sincerely yours,



Dr. Katrina Bulkley
IRB Chair

cc: Ms. Catherine Bruno, ORSP: Internal Award

Appendix C

Informed Consent

Dear Korean Immigrant Mothers,

You are invited to participate in an anonymous survey study of the "**Examination of Infant Feeding Decision-making and Ecological Factors within the Korean Immigrant Context.**"

We hope to learn more about how Korean mothers feel about breastfeeding and what individual, family, and cultural factors influence Korean mothers' infant feeding decisions for their babies.

If you decide to participate, you will be asked to answer the following set of questions: your attitudes and intentions towards breastfeeding, past and current infant feeding experiences, and general demographic information. It will take about 20-40 minutes.

At the end of the survey, you will be given a chance to supply your email for a drawing to win a \$50 Amazon Gift Card. If you choose to participate in the drawing, your email will be kept in a separate file from your survey answers.

You may not directly benefit from this research. However, we hope that this research will result in a deeper understanding of the Korean-specific pathways in decision making about infant feeding and mothers' infant care experiences in the U.S.

Any discomfort or inconvenience to you may include emotionality concerning discussing your infant feeding decisions. Data will be collected using the Internet. There are no guarantees on the security of data sent on the Internet. Confidentiality will be kept to the degree permitted by the technology used.

If you decide to participate, you are free to stop at any time. You may skip questions you do not want to answer.

Please feel free to ask questions regarding this study. If you have any questions, you may contact Dr. Yeon Bai, the Principal Investigator, or Dr. Soyoung Lee, the Co-Principal Investigator, at (973) 655-3220, bfmothers@gmail.com.



Any questions about your rights may be directed to Dr. Katrina Bulkley, Chair of the Institutional Review Board at Montclair State University at reviewboard@mail.montclair.edu or (973) 655-5189.

Thank you for your time.

Sincerely,

Yeon Bai, Ph.D., RD

Principal Investigator

Associate Professor

Dept. of Health and Nutrition Sciences

Montclair State University

Soyoung Lee, Ph.D., CFLE

Co-Principal Investigator

Associate Professor

Dept. of Family and Child Studies

Montclair State University

AUG 28 2015
INSTITUTIONAL REVIEW BOARD

The study has been approved by the Institutional Review Boards at Montclair State University (IRB#001535, Approval Date: 7/7/2015).

(Please feel free to print a copy of this consent.)

Appendix D

Recruitment Flyer

ONLINE SURVEY RECRUITMENT WEBSITE/EMAIL

ENGLISH VERSION

BREASTMILK, FORMULA, OR WHAT HAVE YOU DECIDED?

Researchers at Montclair State University are conducting a study to learn about how Korean immigrant mothers make infant feeding decisions. If eligible, you are invited to participate in an online survey.

- Are you Korean or Korean American?
- Are you 18 years old or older?
- Do you currently live in the U.S.?
- Are you currently pregnant or less than 19 months postpartum?

If your answer is **YES** to all of the above questions, you are invited to participate in this study by going to the on-line survey questionnaires: [Infant Feeding Survey](#)

If you choose to complete the 30-40 minute questionnaire, you will be given a chance to enter your name, separate from the questionnaire, for a drawing for a \$50 Amazon gift card.

If you want to know further about the current study, please contact:
Dr. Yeon Bai, Montclair State University, at BFmothers@gmail.com

Please share this information with anyone you know who fits the criteria and invite them to participate!

This study has been approved by the Montclair State University Institutional Review Board (IRB # 001535, Approval date 7/7/2015).

Thank you for your consideration.

Sincerely,
Yeon Bai, PhD, RD
Associate Professor
Dept of Health and Nutrition Sciences
Montclair State University

