

CHAPTER 4

Findings and Discussion

This chapter presents and discusses the findings of the study in relation to the study questions and objectives. The study attempted to describe the breastfeeding practice and to compare breastfeeding self-efficacy among the first-time Nepalese adolescent mothers who gave different types of infant feeding within six months of postpartum.

Findings

The findings are presented in three parts: Part I: Characteristics of Nepalese adolescent mothers, Part II: The breastfeeding practice among Nepalese adolescent mothers, and Part III: Comparison of breastfeeding self-efficacy among Nepalese adolescent mothers who gave different types of infant feeding within six months.

Part I: Characteristics of Nepalese Adolescent Mothers

There were 114 Nepalese adolescent mothers who took part in the first interview but only 100 mothers who completed the final interview. The demographic characteristics of the 100 adolescent mothers are illustrated in Table 1. Among these respondents, 76.0% were 18-19 years old. The average age of the mothers was 18.00 (S.D. = 0.79). About half of the adolescent mothers (46.0%) had obtained primary education, and most (80.0%) were housewives. The majority of the adolescent mothers (55.0%) came from extended families, and most of them (58.0%) had monthly family incomes of 20,000 Nepalese Rupees or less. Most of the mothers gave birth at the hospital. Only about one-fourth of the mothers received either prenatal or postnatal education on breastfeeding. The demographic characteristics of the 100 adolescent mothers are illustrated in Table 1.

Table 1

Demographic Characteristics of Nepalese Adolescent Mothers (n = 100)

Demographic Characteristics	Frequency (n = 100)	Percent (%)
Age (Years) (Mean = 18.00, SD = 0.79)		
16 - 17	24	24.0
18 - 19	76	76.0
Educational level		
No formal education	4	4.0
Primary school	46	46.0
Secondary school	31	31.0
Higher secondary school	19	19.0
Occupation		
Housewife	80	80.0
Laborer	7	7.0
Student	6	6.0
Vendor	5	5.0
Maid	2	2.0
Family income in Nepalese rupees (NRs 100 = 1 US\$)		
Up to 20,000	58	58.0
20,001 – 40,000	28	28.0
40,001 – 50,000	14	14.0
Characteristics of family		
Nuclear	45	45.0
Extended	55	55.0

Table 1 (continued)

Demographic Characteristics	Frequency (n = 100)	Percent (%)
Childbirth information		
Place of Delivery		
Hospital	97	97.0
Home	3	3.0
Breastfeeding education		
No	75	75.0
Yes	25	25.0
<i>Prenatal only</i>	12	12.0
<i>Postnatal only</i>	13	13.0
<i>Prenatal and postnatal</i>	6	6.0

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Part II: Breastfeeding Practice Among Nepalese Adolescent Mothers

This part illustrates the infant feeding practice within six months of the postpartum period by the respondents. Among the respondents in this study, the exclusive breastfeeding rates at six weeks and three months were very high at 93.9% and 93.7%, respectively. On the other hand, few mothers chose partial breastfeeding or no breastfeeding.

At six months, the exclusive breastfeeding rate among the 100 respondents sharply decreased to 69.0%, and the no breastfeeding rate increased from 2.6% to 12.0% (Table 2). Nine mothers who stopped breastfeeding at six months cited resuming work or school, and three mothers cited “not enough breast milk” as the reason for stopping breastfeeding and introducing formula feeds.

Table 2

Breastfeeding Practice Within 6 Months of Postpartum Period

Period of postpartum	Exclusive breastfeeding		Partial breastfeeding		No breastfeeding		Total	
	N	%	N	%	N	%	N	%
At 6 weeks	107	93.9	4	3.5	3	2.6	114	100.0
At 3 months	104	93.7	4	3.6	3	2.7	111	100.0
At 6 months	69	69.0	19	19.0	12	12.0	100	100.0

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Part III: Comparison of Breastfeeding Self-Efficacy Among Nepalese Adolescent Mothers Who Gave Different Types of Infant Feeding

This part compared the mean score of breastfeeding self-efficacy at six weeks among the first-time adolescent Nepalese mothers who were practicing different types of breastfeeding within six months (at six weeks, at three months, and at six months). Table 3 illustrates the mean and standard deviation scores of breastfeeding self-efficacy at six weeks and the different types of breastfeeding practice at three different times.

Table 3

The Breastfeeding Self-Efficacy Score of Nepalese Adolescent Mothers Within Six Months Among Mothers Who Provided the Different Types of Breastfeeding at Three Time Points

Period of postpartum	Breastfeeding self-efficacy							
	Exclusive breastfeeding		Partial breastfeeding		No breastfeeding		Total	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
At 6 weeks (n = 114)	48.9	5.5	43.5	6.4	32.3	15.9	48.3	5.4
At 3 months (n = 111)	49.0	5.5	43.5	6.4	32.3	15.9	48.4	6.5
At 6 months (n = 100)	51.2	5.2	42.4	7.8	42.8	2.7	48.5	6.8

Breastfeeding self-efficacy scores within six months of the adolescent mothers who practiced different types of breastfeeding at each of three different times were compared by using analysis of variance (ANOVA). The findings are shown in Tables 4-9.

Results of the ANOVA show that there was a significantly different breastfeeding self-efficacy at six weeks among the mothers with different types of breastfeeding at a significance level of .001 ($F = 13.21, p < .001$) (Table 4). When comparing each pair of breastfeeding type, it was found that the mothers who practiced exclusive breastfeeding had significantly higher scores of breastfeeding self-efficacy than those who did not breastfeed ($t = 15.52, p < .001$) but did not have significantly higher scores than those who practiced partial breastfeeding ($t = 5.45, p = .191$). In addition, the mothers who gave partial breastfeeding had significantly higher scores of breastfeeding self-efficacy than those who were not breastfeeding ($t = 11.17, p < .05$) (Table 5).

Table 4

Results of Analysis of Variance for Breastfeeding Self-Efficacy and Types of Breastfeeding Practice at Six Weeks (n = 114)

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	902.56	2	451.279	13.215	< .001
Within Groups	3790.43	111	34.148		
Total	4692.99	113			

*** $p < .001$

Table 5

Comparison of Breastfeeding Self-Efficacy at Six Weeks Among the Groups of Mothers with Different Types of Breastfeeding Practice at Six Weeks

Types of breastfeeding practice	Partial breastfeeding	No Breastfeeding
Exclusive breastfeeding	5.45 ^{ns}	15.52 ***
Partial breastfeeding		11.17 *
No breastfeeding		

Note. ^{ns} = non-significant. *** $p < .001$. * $p < .05$.

At three months of postpartum period, it was shown that there was significantly different breastfeeding self-efficacy at six weeks among the different types of breastfeeding practices at three months ($F = 13.07, p < .001$). When comparing a pair of breastfeeding practices (Table 7), it was found that the mothers who practiced exclusive breastfeeding had significantly higher scores of breastfeeding self-efficacy than those who were not breastfeeding ($t = 16.68, p < .001$) but not significantly higher scores than those who practiced partial breastfeeding ($t = 5.51, p = .196$). In addition, the mothers who practiced partial breastfeeding had higher scores of breastfeeding self-efficacy than those who did not breastfeed at a significance level of .05 ($t = 11.16, p = .048$).

Table 6

Analysis of Variance for Breastfeeding Self-Efficacy and Types of Breastfeeding Practice at Three Months (n = 111)

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	908.93	2	448.77	13.07	< .001
Within Groups	3754.56	108	34.76		
Total	4689.40	110			

*** $p < .001$

Table 7

Comparison of Breastfeeding Self-Efficacy at Six Weeks Among the Groups of Mothers with Different Types of Breastfeeding Practice at Three Months

Types of breastfeeding practice	Partial breastfeeding	No Breastfeeding
Exclusive breastfeeding	5.51 ^{ns}	16.68***
Partial breastfeeding		11.16 *
No breastfeeding		

Note. ^{ns} = non-significant. *** $p < .001$. * $p < .05$.

At six months of postpartum period, the findings of the ANOVA shows there was a significantly different breastfeeding self-efficacy score at six weeks among the mothers who practiced different types of breastfeeding at three months at significance level of .001 ($F = 25.96, p < .001$) (Table 8). When comparing a pair of breastfeeding practices (Table 9), it was found that the mothers who gave exclusive breastfeeding had significantly higher scores of breastfeeding self-efficacy than those who were not breastfeeding ($t = 8.38, p < .001$) and those who gave partial breastfeeding ($t = 8.85, p < .001$). However, the mothers who gave partial breastfeeding did not have significantly different scores of breastfeeding self-efficacy than those who were not breastfeeding ($t = 0.46, p = .98$).

Table 8

Results of Analysis of Variance for Breastfeeding Self-Efficacy and Types of Breastfeeding Practices at Six Months (n = 100).

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1609.20	2	804.54	25.96	< .001
Within Groups	3005.20	97	30.99		
Total	4514.91	99			

*** $p < .001$

Table 9

Comparison of Breastfeeding Self-Efficacy at Six Weeks Among the Groups of Mothers with Different Types of Breastfeeding Practices at Six Months

	Partial breastfeeding	No Breastfeeding
Exclusive breastfeeding	8.85 ***	8.38***
Partial breastfeeding		0.46 ^{ns}
No Breastfeeding		

Note. ^{ns} =non-significant. *** $p < .001$.

Discussion

The discussion of this study is presented according to the research objectives.

Research Objective 1: Describing Breastfeeding Practice Within Six Months

Overall, the rates of exclusive breastfeeding practice at six weeks (93.9%) and at three months (93.7%) were very high, but the rate of exclusive breastfeeding practice at six months sharply decreased to 69.0%. Moreover, 31.0% of the adolescent mothers were relying on alternative feedings. The high rates of breastfeeding at six weeks and three months could be because most of the mothers were from extended families (55.0%). Previous studies suggest that family support and family presence increase the breastfeeding practice rate among mothers (Aryeetey & Antwi, 2013; Dennis & Faux, 1999a; UNICEF, 2012).

Although these findings on breastfeeding practice do not align with other studies carried out among the Nepalese adolescent mothers, they are quite consistent with the previous findings among general mothers because it shows an exclusive breastfeeding practice rate of 69.0% at six months (UNICEF, 2013). However, the findings of this study are inconsistent with the previous studies from India (Shetty & Shetty, 2013) and the United Kingdom (Nadler, 2007) which have suggested that mothers who are younger are less likely to breastfeed at six weeks and three months of the postpartum period. Perhaps different cultural practices, traditions and geographical location resulted in the difference in breastfeeding practice among these groups. Furthermore, a study showed that Nepalese mothers had very positive attitude towards breastfeeding. They also received good support and encouragement to breastfeed from health workers and family members (Karkee et al., 2014).

Breastfeeding is traditionally and culturally a very popular practice in Nepalese society, and mothers are encouraged to breastfeed for a long duration. A study found that almost all infants (98.0%) had been breastfed and their mothers intended to continue breastfeeding for an average period of 28 months (Karkee et al., 2014).

Breastfeeding intention and social support has been found to be positively associated with breastfeeding duration (Meedya et al., 2010). In 2011, the NDHS

reported that half of the Nepalese children surveyed were breastfed for up to 34 months (Ministry of Health and Population [MHP], 2011). In this study, maternal unemployment status and reliance on breast milk as readily available infant food might have contributed to the continuing of breastfeeding practice.

In terms of the national health policies and activities to promote and protect breastfeeding, a national committee of Nepal formed two principal activities to support the training of health professionals in proper breastfeeding knowledge and to encourage hospitals by using the ten steps for successful breastfeeding under the “Baby Friendly Initiation hospital (BFHI)” program (Shrivastav et al., 2013). In addition, childbirth preparation programs were implemented in the country. About one-third of women obtained such breastfeeding information from either female community health volunteers or health facility personnel, while about half of them received encouragement to breastfeed from health workers. (Karkee et al., 2014). Likewise, Well Baby Clinic of Paropakar Maternity and Women's Hospital, a tertiary central maternity hospital in Nepal, adopted the BFHI program. They organized regular events and programs to train and inform hospital staff and to emphasize the importance of breastfeeding. This BFHI program incorporated lactation counselling sessions for pregnant and postpartum women both at health facilities and in communities. In this study, the majority of the mothers (97.0%) delivered in the hospital. As studies have supported that mothers who gave birth at the hospital have a higher rate of breast feeding practice than mothers who deliver at home (Aryeetey & Antwi, 2013; Henry et al., 2010; Legesse et al., 2014), the mothers in this study may have received support from health care workers to initiate exclusive breastfeeding immediately after giving birth.

However, the breastfeeding rate at six months among Nepalese adolescent mothers decreased sharply to 69.0% because most of them resumed work and studies. This finding supports findings of several other studies which reported that mothers who were employed and worked outside the house had a lower rate of breastfeeding compared to mothers who stayed at home (Hawkins et al., 2007; Shommo & Al-Shubrumi, 2014; Yimyam, 2013).

Despite the early initiation of breastfeeding practice among general mothers in Nepal, 73.0% of breastfeeding was carried out within one hour of delivery and 84.0% within 24 hours of birth (Chandrasekhar et al., 2007). The breastfeeding rate at six months was 70.0% (NDHS, 2011; UNICEF, 2013b). The majority of mothers are still providing faulty feeding (Shrivastav et al., 2013). The availability of alternative infant feeds such as cow's and buffalo's milk, (Basnet et al., 2012) and the high use of local herbal drops could explain the increased likelihood of Nepalese mothers giving prelacteal feeds to their newborns before six months of age (Chandrasekhar et al., 2007). It is a result of early partial breastfeeding practice. However, formula feeding is not yet widespread across Nepal, but it is becoming popular in urban areas as reflected by the observed higher rate of prelacteal feeds used by urban mothers (13.4%) (Karkee et al., 2014).

Research Question 2: Comparing Breastfeeding Self-Efficacy Among Adolescent Mothers Who Provided Different Types of Breastfeeding Within Six Months

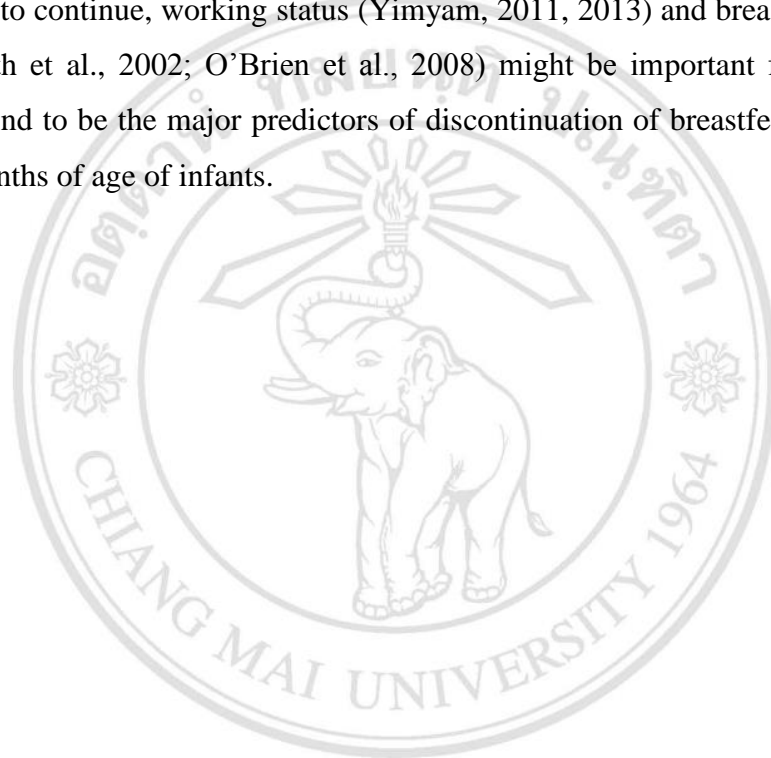
In this study, the mothers' breastfeeding self-efficacy was assessed at six weeks of postpartum period among 114 adolescent mothers. The mean score of breastfeeding self-efficacy was as high as 48.3 (S.D. = 5.4). Within six months, adolescent mothers who gave exclusive breastfeeding had the highest score of breastfeeding self-efficacy at three points (six weeks, three months, and six months). Comparing breastfeeding self-efficacy among the adolescent mothers who practiced partial or no breastfeeding with those who practiced exclusive breastfeeding at six weeks, three months, and at six months, it can be seen that the mothers who practiced exclusive breastfeeding had the highest breastfeeding self-efficacy score. It was found that there were differences in breastfeeding self-efficacy among adolescent mothers who provided different types of breastfeeding. These findings are consistent with other studies. It could be concluded that breastfeeding self-efficacy is a substantial predictor of breastfeeding methods (Dennis & Faux, 1999b). In particular, mothers with higher breastfeeding self-efficacy were significantly more likely to continue to breastfeed and to do so exclusively than mothers with lower breastfeeding self-efficacy (Blyth 2004; Dennis, 2003; Wilhelm, Stepan, Hertzog, Rodehorst, & Gardner, 2006). The finding is consistent with the study among adolescent mothers in the UK. (Mossman et al., 2008) that higher breastfeeding

self-efficacy were significantly more likely to continue to breastfeed and to do so exclusively. Thus, self-efficacy is a reasonable measure to predict breastfeeding practice among mothers (Wells, Thompson, & Kloeblen-Tarver, 2006). Several studies had proved that breastfeeding self-efficacy was the major predictor of breastfeeding practice among mothers (Dodt et al., 2012; NNFSB, 2010; Smith et al., 2012; Otsuka et al., 2014).

When comparing between each type of breastfeeding practice within six months, it revealed different findings. At six weeks and at three months of the postpartum period, there was no difference in breastfeeding self-efficacy scores among mothers who gave exclusive breastfeeding and those who gave partial breastfeeding. Mothers who gave exclusive breastfeeding or partial breastfeeding had higher scores of breastfeeding self-efficacy than those who gave no breastfeeding. From other studies (Blyth et al., 2002; Inoue, 2012; Yimyam, 2011, 2013), the perception of insufficient breast milk is the most common barrier to breastfeeding. Most adolescent mothers cited “not enough breast milk” as the reason to not breastfeed or to introduce formula feed before six weeks. Mothers who had high scores of breastfeeding self-efficacy might try to solve the problem and continue breastfeeding either in the form of exclusive breastfeeding or partial breastfeeding (combine breastfeeding with formula). However, mothers who had low scores of breastfeeding self-efficacy might choose to wean their infants (as with the no breastfeeding group). A content and thriving baby may be a key condition underlying persistence with exclusively breastfeeding when other feeding options are available. These finding are consistent with several other studies (Aryal, 2007; Khanal et al., 2013; Semenic, Loiselle, & Gottlieb, 2008).

At six months, there was no difference in breastfeeding self-efficacy between mothers who gave partial breastfeeding and no breastfeeding. However, mothers who gave exclusive breastfeeding had higher scores of breastfeeding self-efficacy than those who gave partial breastfeeding or no breastfeeding. In addition, the most common reason for weaning before six months for adolescent mothers who initiated breastfeeding at six weeks was resuming work or school. These findings explained that for most adolescent mothers, confidence in breastfeeding and breastfeeding self-efficacy was one of the key factors for their decision to initiate breastfeeding and

continue breastfeeding for three months. At six months, not only breastfeeding self-efficacy but also the mother's working status might have played an important role in the decision to continue breastfeeding; however, mothers who had very high breastfeeding self-efficacy scores could manage and continue breastfeeding. These findings support the previous studies in many countries that breastfeeding self-efficacy is the most important factor for initiating breastfeeding (Dennis, 2002, 2006; Dennis & Faux, 1999a; Dodt et al., 2012; O'Brien, Buikstra, Fallon, & Hegney, 2008), but for breastfeeding to continue, working status (Yimyam, 2011, 2013) and breastfeeding self-efficacy (Blyth et al., 2002; O'Brien et al., 2008) might be important factors, which were both found to be the major predictors of discontinuation of breastfeeding practice before six months of age of infants.



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