

CHAPTER 3

Methodology

This chapter describes the methodology of this study. It includes the research design, population and sample, setting, research instrument, protection of human subjects as well as data collection and analysis procedures.

Research Design

A comparative descriptive study was used to investigate breastfeeding practice among the first-time Nepalese adolescent mothers within six months of postpartum period and to compare breastfeeding self-efficacy scores among three groups of the mothers who practiced different types of breastfeeding within six weeks.

Population and Sample

Population

In this study, the target population were first-time Nepalese adolescent mothers at six to eight weeks of postpartum who attended Well Baby Clinic in Paropakar Maternity and Women's hospital with their six to eight week old babies at the first interview. They were followed up about breastfeeding practice via telephone at three months and six months of postpartum.

Sample Size

Sample size was estimated by using power analysis (Polit & Beck, 2008). The estimated sample size were calculated with the accepted minimal significant (α) of 0.05 and the expected power ($1-\beta$) of 0.80. The population medium effect size of 0.3 was estimated. The calculated sample size was 88, but in anticipation of possible 20.0% loss of subjects, 22 more samples were added bringing the final sample population to 110.

Sampling Method

Recent record of Well Baby Clinic in Paropakar Maternity and Women's hospital showed that the total number of mothers visiting the hospital was 70-100 per day. Purposive sampling method was used to select first time adolescent mothers who attended the hospital to immunize their infant based on the following inclusion criteria.

Inclusion criteria.

The sample were recruited using the following criteria:

1. Being healthy adolescent mothers who gave vaginal birth with term infant and did not have complications,
2. Having healthy infant aged six to eight weeks without contraindication for breastfeeding, and
3. Willing to participate and able to read and write Nepali.

Exclusion criteria.

The following exclusion criteria was applied to the sample:

1. Being unable to follow up within six months of baby's age, and
2. Not willing to continue participation in this study.

Research Setting

The study was conducted in the Well Baby Clinic in Paropakar Maternity and Women's hospital, Kathmandu, Nepal. It is the tertiary central maternity hospital in the country with 415 beds where the adolescent mothers visited to immunize their infants at six to eight weeks of postpartum period.

Research Instruments

The research instrument were three parts of structured questionnaire in Nepali language including personal data profile, the breastfeeding self-efficacy and breastfeeding practice (Appendix A).

Part 1 Demographic Data Form

Personal data profile was developed by the researcher containing close ended and open ended questions. The form was used to collect demographic data including maternal age, education, occupation; family income and characteristics of family; numbers of family members as well as pregnancy and childbirth history including parity and gestational age, type of delivery as well as attendance of prenatal and postnatal education on breastfeeding.

Part 2 The Breastfeeding Practice

The breastfeeding practice questionnaire were developed by Yimyam (2013) to investigate the breastfeeding practice of mothers within six months. The questions are both open and close ended.

Part 3 The Breastfeeding Self Efficacy- Short Form (BSES-SF)

The Breastfeeding Self Efficacy-Short Form (BSES-SF) was developed by Dennis (2002). It is consisted of 14 items. All items are preceded by the phrase “I can always” and anchored with a 5-point Likert-type scale where 1 indicates not at all confident and 5 indicates always confident. The possible scores range from 14-70.

Validity and Reliability of the Research Instruments

Test for Validity

Since the Breastfeeding Self Efficacy-Short Form (BSES-SF) and the breastfeeding practice questionnaire were not modification of questionnaires, validation of test were not necessary. Permission to use the instruments was sought from authors and authority granted (Appendix B). The original CVI of BSES-SF was 0.83, and the coefficient alpha of the instrument was 0.94. The original CVI of breastfeeding practice questionnaire was 1.0, and the repeatability coefficient of the instrument was 1.0. Breastfeeding Self Efficacy - Short Form and breastfeeding practice questionnaire were translated using the back translation technique (Sperder, Devellis, & Boehlecke, 1994). Original version of breastfeeding practice and Breastfeeding Short Form (BSES-SF) questionnaire were translated to a Nepali version by a certified bilingual expert (MA in

English literature). Another bilingual expert translator (MS in Maternal Child Nursing) translated the Nepali version into English. Finally, a bilingual expert (MD in Gynecology) evaluated both the English version and the English back-translated version for discrepancies to ensure the equivalence of these two versions.

Test for Reliability

Breastfeeding Practice. To measure the reproducibility of the breastfeeding practice, questions were asked twice with one week interval among 20 first-time adolescent mothers. Its test-retest within two weeks was used to confirm the consistency in result. It was found that all candidates gave the same type of breastfeeding practice. The reliability of test-retest was 1.0. Therefore the results substantiate the reproducibility of the instrument.

Breastfeeding Self-Efficacy - Short Form. The coefficient alpha from a previous study was 0.94 (Dennis, 2003). The instrument was tested for internal consistency among a convenient sample of 20 Nepalese adolescent mothers who were recruited based on 10-20.0% of total sample size (Polit & Beck, 2008). These adolescent mothers will not be included in the study. The coefficient alpha of BSES-SF in this study was 0.86.

Protections of Human Subjects

The research proposal was submitted to the research ethics review committee, the Faculty of Nursing, Chiang Mai University, Thailand to obtain approval of the study before data collection (Ethic approval No. 144/2015) (Appendix C). Following that, approval was taken from the director of Paropakar Maternity Hospital. Subjects were selected from the adolescent mothers who visited well-baby clinic (Appendix D). Research consent form and information sheets were written in simple Nepali language so that it could be easily understood by the first-time adolescent mothers. Mothers were free to refuse to participate or withdraw from the study at any time without losing any benefits. Privacy, anonymity and confidentiality were ensured (Appendix E). Through the information sheet, respondents were assured that results of the study would not reflect an individual person but would be shared to the public as an overall result. The

selected adolescent mothers had signed the consent form before the face to face interviews.

Data Collection Procedure

1. The researcher submitted this research proposal to the Faculty of Nursing Chiang Mai University Research Ethics Review Committee for review and approval.

2. After the approval, the research package including the research proposal, a cover letter, a request for permission to collect data and a copy of data collection tool were sent to the director of the Paropakar Maternity and Women's hospital. Permission to collect data was obtained from the directors of Paropakar Maternity Hospital, Kathmandu, Nepal.

3. The researcher met and explained the aims and procedure of the study to the supervisor of the Well Baby Clinic in Paropakar Maternity and Women's hospital and provided access to the subjects of research.

4. The researcher approached the sample of adolescent mothers at Well Baby Clinic for participation in this study. Before filling out the questionnaires, each subject was explained about the research objectives and asked to sign the consent form only if they were happy to take part in it.

5. The researcher conducted face to face interviews of adolescent mothers to obtain information on their personal data, breastfeeding self-efficacy and breastfeeding practice.

6. When their infants were three months and six months old, the researcher assistant followed up on their breastfeeding practice through telephone interviews following the data collection.

7. In the first face to face interview at six weeks of postpartum, 114 Nepalese adolescent mothers participated. The second interview was taken by a designated research assistant (registered nurse from the Well baby clinic) via telephone. Only one hundred and eleven mothers were interviewed because three mothers couldn't be contacted. Each mother was called more than 5 times by the research assistant. Two of

the mothers didn't respond and one phone number given by a mother was not recognized. In the third telephone interview by the research assistant at six months, another 11 mothers couldn't be contacted. This time too, the research assistant called each mother more than 5 times. Previous three mothers were still out of reach. Another six mothers had their mobile phone switched off (this could be due to the load shedding problem which is quite common in Nepal), three mothers weren't picking up the phone and last two mothers were out of network area (which is also a common problem in Nepal). Therefore, only 100 mothers could be followed up through telephone interview.

8. During the data collection period, there was no breastfeeding promotion program in the hospital.

9. The researcher checked for completeness of data before entering data to computer for analysis.

Data Analysis

Data analysis were done using descriptive and inferential statistics. They were calculated from questionnaire at 0.05 level of statistical significance. Analysis follows these steps:

1. Personal data were analyzed using descriptive statistics including frequency, percentage, mean and standard deviation.

2. Total score of breastfeeding self-efficacy and breastfeeding practice among adolescent mothers were also analyzed by descriptive statistics including frequency, percentage, mean and standard deviation before inferential statistics was computed.

3. The normality assumption was tested using Kolmogorov-Smirnov Test (KS). After it was found that the distribution of breastfeeding self-efficacy scores were normal, the analysis of Variance (ANOVA) was used to investigate the differences of breastfeeding self-efficacy scores among mothers who gave different types of infant feeding.