

CHAPTER III

METHODOLOGY

3.1 Study Design

This study is cross sectional descriptive study, using a survey with structured questionnaire

3.2 The Study Area

This study was done in Punakha District in Bhutan, in three villages, Limbukha, Kabesa and Khuruthang.

3.3 The Study Population

The study populations were the married women of reproductive age group in Punakha District, from three villages.

3.4 Sample Size

In order to determine the sample size, following formula has been applied

$$n = \frac{Nz^2 pq}{d^2 (N-1) + Z^2 pq} \quad (\text{Daniel, 1987})$$

n = Sample size

N = Population size (1270)

D = Absolute precision or difference = .05

z = Reliability coefficient at 95% CI = 1.96

p = The proportion in population. The prevalence of contraceptive rate in Bhutan at present is 30% (Annual health bulletin, 2001).

q = 1

p = 0.5

By applying this formula the required sample size was 195. The sample size was increased to 215 to account for eventual dropouts

3.5 Sampling Technique

The study sample was selected by stratified random sampling. The estimated number of married women of reproductive age in Phunakha was 1,270. There are nine villages in the District, each village having about 141 women of reproductive age group. Sample of 215, from three villages in Punakha District were selected by using following criteria.

1. Very far away from hospital
2. Far from hospital
3. Near to the hospital

All the married women of reproductive age group in each household were listed from the registration register and randomly selected, resulting in selecting seventy from the farthest, seventy from the far and seventy-five from the nearby village as the sample.

3.6 Research Instrument

3.6.1 Data were collected by, using a structured questionnaire, for face-to-face interviews by trained personal,

Part 1. It included demographic variables, such as age, education, occupation, and fertility.

Part 2. Dealt with beliefs and attitudes of the women such as value of child's gender, religion, decision-making, perception on contraception and methods.

Part 3. Focused on Enabling factors which included, cultural appropriateness and geography personal factors and knowledge.

Part 4. Addressed the Perceived level of need, including information, service delivery and supply.

Part 5. Finally assessed utilization including use, type of facility, and type of contraceptives.

Table 2: Measurement scale of the variables

Variables	Measurement scale
Age	Continuous
Education	Ordinal
Occupation	Ordinal
Fertility	Nominal
Value of child's gender	Nominal and ordinal
Religion	Nominal
Decision-making	Ordinal
Perception on contraception	Continuous and ordinal
Cultural appropriateness	Continuous and ordinal
Geography	Ordinal
Economic	Nominal and ratio
Knowledge	Continuous and ordinal
Information	Nominal and ordinal
Service delivery	Ordinal
Supply	Nominal
Utilization of contraceptives	Continuous and ordinal

3.6.2 Steps in construction of the questionnaires

A Literature review was done to define the parameters for the study to learn what others have done and recommended.

Some standard questions were adopted from the literature and some were constructed in support of conceptual framework.

3.7 Data Collection

Permission from the District Commissioner and the local health authority (District Medical Officer) was obtained to collect information in writing.

Five female nursing staff from Punakha hospital were trained for half a day as interviewer.

All respondents were asked exactly the same questions. After completion of each interview, the interviewer checked all completed questionnaires for errors or omissions interviewer and the researcher checked questionnaires immediately after the interviews.

3.8 Data Analysis

Questionnaires were coded before entering the data in the computer by the researcher. A sample of database was checked by double entry.

The data analysis was done by using a descriptive statistical analysis, including frequencies, proportions, means and standard deviation.

In order to determine the relationship between independent and dependent variables, the Chi-square test was used. The descriptive analysis was facilitated by the use of SPSS (version 10.0).

3.9 Reliability and Validity

3.9.1 Validity

Content validity of the questionnaire, was checked by experts, their comments and suggestion were incorporated in consultation with the adviser. Face validity was checked during the pretest in Wangdi village.

3.9.2 Reliability

The questionnaires were pre tested on the similar population in Wangdi, on thirty married women of reproductive age. Conbach's alpha coefficient was used to measure reliability of the instrument. The reliability was (.73).

3.10 Ethical Consideration

- The purpose of the study was be explained each respondents
- Privacy and the confidentiality were maintained throughout the research
- The information obtained from the respondents were purely utilized for this study and none of the questionnaires can be traced back to the respondents
- Respondent involvement in this study was completely on voluntary participation
- Each respondent were asked for their verbal consent before answering the questions

3.11 Benefit of the Study

This study will provide base-line information for the health authorities in Punakha District and may inform reproductive health program planning.

3.12 Limitation of the Study

- Study was done in Punakha only; therefore findings cannot be generalized to the whole Bhutan.
- Since it is a cross sectional study, it is unable to include changes over time.