Chapter 3

METHODOLOGY
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Neglect and abuse of girl children is found incipiently in the society. It depends on several factors such as income level of the parents, occupation, social class, type of locality, type of dwelling, family size norm and societal approval. In order to study the problem of neglect and abuse the following methodology is followed.

Sample Frame and Size

The unit of study is a household with the couples having at least one girl child in the age range of 1 to 10 years at the time of the survey. Only one couple from each household was chosen for the study. These couples were chosen randomly using Multi-stage Random sampling procedure from slum and non-slum areas of Tirupati (a class I town), belonging to Rayalaseema region and Ongole town (class I town) belonging to the Coastal districts of Andhra Pradesh. For certain analysis in the study eligible woman and her first-born daughter were treated as respondent 1 (R1) and respondent 2 (R2). The sample consists of 1000 households drawn from the slums (Ongole slums 250 households and Tirupati slums 250 households) and non-slums (Ongole non-slum 250 households and Tirupati non-slum 250 households) of these towns. The break up of sample is as follows.
The study is proposed with the following objectives

**Objectives**

1. To examine the extent of discrimination in the event of having more female children
2. To study the patterns of child neglect found in households
3. To examine the interrelationship between neglect and health of girl children
4. To study the various causes of girl child morbidity and neglect
5. To study the interrelationship between the health status of mother, children and girl child neglect
6. To study differential treatment of girls with regard to illness
7. To study the interrelationship between housing conditions of family, girl child morbidity and neglect
8. To examine the impact of social interactional factors on girl child neglect
9. To find the dimensions of girl child neglect
To find the treatment of the girl child neglect by the parents who are similarly neglected in their childhood

**Hypotheses**

In order to study the objectives the following hypotheses have been framed

1. Slum dwellers have higher fertility than the non-slum dwellers
2. There is a negative association between the age of the girl child and neglect
3. The higher the education of the mother, the lesser the girl child neglect
4. Neglected mother may neglect the girl children
5. The higher the number of children, the lesser the preference for girls
6. The higher the number of female children, the greater the discrimination
7. The better the house sanitation, the lower the girl child neglect
8. The higher the socio-economic status of parents, the lower the morbidity and neglect of girl child
9. Per capita income of the family is negatively associated with fertility and neglect of girl child
10. The lower the status of the family, the lower the status of the girl child
11. The higher the age at marriage, the lower the fertility and lesser the neglect of girls
Type of marriage (consanguineous) may effect the fertility and neglect of girls.

The educational level of the girl child is negatively associated with neglect of girl child by parents.

The more the years of stay in urban areas, the lesser the neglect of girl children.

The more the rural-urban migration, the greater the neglect of girl children.

The more the balanced sex-ratio of the children, the lesser the neglect of girl children.

Conceptual Model

A conceptual model has been developed by the author to conduct the present study. This conceptual model has been developed based on the thorough literature survey. In the present model various parameters like socio-economic and demographic factors, parental factors, Maternal antecedents, familial factors, social factors have been given focus. Some times these factors directly and indirectly influence the girl child neglect (Illustration-II).

Schedule Development

Based on the conceptual model given above the following variables have been included in the study.
(Illustration-II) Conceptual Model of Neglect of Girl Children
A Schedule was developed based on extensive review of available literature on girl child neglect and also discussion with the experts and the preliminary observations made by the investigator in the slums and non-slums of Ongole and Tirupati. The Schedule was pre-tested before administering in the sample population of slums and non-slums of Ongole and Tirupati. By using the pre-tested Schedule, a final Schedule was prepared. Final Schedule was used for collecting data collection.

The Schedule consists of general background of the respondent, pregnancy history of the mother, maternal antecedents, details of anthropometric measurements of girls and mother. Opinions about neglect and abuse of girls were elicited from mother and girls in the age range of 6-10 years and income status. The details with regard to girl child and mother (respondent) are as follows.

**Girls** Information regarding health status of girls, which includes personal hygiene of girls, clinical symptoms (vitamin deficiencies), morbidity pattern (duration and episodes during last 6 months), medical treatment provided at the time of illness and anthropometric measurements (1-10 years height, weight and for 1-5 years height, weight, head circumference, mid arm-circumference and chest circumference) were also included in the Schedule. Further, help from girl children to mother in household activities, treatment of the girl by mother for not helping in household activities, discrimination shown by parents in providing education, food, clothes, passing orders and abusing for every single fault were also included (6-10 years) in the Schedule.
Mother  Information regarding personal hygiene of mothers, vitamin deficiencies, morbidity pattern (which includes minor and major illness) and anthropometric measurements like height and weight were included in the Schedule. Information pertaining to reaction of the parents (mother and father) at the time of birth of girl child, reasons to have at least a girl child, antecedents of mother (in parental home) regarding the discrimination shown by her parents in allocation of food, education, clothes, passing orders, abusing for every single fault on par with her male siblings, authoritative behaviour of her parents, sour experiences from parents, discouraging situations in her life, her husband behaviour, her economic development compared with others, her expectations about her children, help and co-operation received from parents and in-laws, differences of opinion between husband and wife in family matters was also included in the Schedule.

Development of Indices  Certain indices were developed after the data collection was over. They are as follows.

1  Weight-for-Age

   Height and Weights were recorded separately for mother and girls to assess nutritional status. In the case of one to five year children in addition to height and weight, chest, head and mid-arm circumferences were recorded to know their health and nutritional status. Girl children (1-10 years) were weighed and their actual weight-for-age was compared with the expected weight-for-age based on Hanumantha Rao (1976) (1-5 years) and Ghosh, Santhi (1986) (6-
10 years) standard values. The classification system proposed by Indian Academy of Paediatrics (Subashini Joshi, 1989) includes the following five categories:

1. **Grade IV** - less than 50 per cent of standard weight-for-age
2. **Grade III** - 51-60 per cent of standard weight-for-age
3. **Grade II malnutrition** - 61-70 per cent of standard weight-for-age
4. **Grade I malnutrition** - 71-80 per cent of standard weight-for-age
5. **Normal** - more than 80 per cent of standard weight-for-age

**2 Height-for-Age**  Height of Children (1-10 years) was taken and their height-for-age was compared with the expected height-for-age based on Hanumantha Rao (1976) (1-5 years) and Ghosh, Santhi (1986) (6-10 years) standard values. The classification system proposed by Vishveswara Rao (Subashini Joshi, 1989) includes the following three categories:

1. **Poor** - less than 80 per cent of standard height-for-age
2. **Mild retardation** - 80-90 per cent of standard height-for-age
3. **Normal** - 91-100 per cent of standard height-for-age

**3 Weight-for-Height**  Height of children and mother was taken and their actual weight-for-height was compared with the expected weight for height based on Hanumantha Rao (1976) (1-5 years), Ghosh, Santhi (1986) (6-10 years), and NCHS (USA) (for mothers) standard values. The classification
system proposed by Waterloo’s (Subashini Joshi, 1989) includes the following four categories

1  Severe malnutrition - less than 75 per cent of standard weight-for-height
2  Moderate malnutrition - 75-84 per cent of standard weight-for-height
3  Marginal malnutrition - 85-90 per cent of standard weight-for-height
4  Normal - More than 90 per cent of standard weight-for-height

4  Mid arm and Head Circumference ratio  The classification system of mid-arm circumference/head circumference ratio was proposed by Kanawati and McLaren which includes (Subashini Joshi, 1989) the following five categories

1  Obese - more than 0.35 ratio of standard mid-arm circumference/ head ratio
2  Normal - 0.31 to 0.34 ratio of standard mid arm circumference/head circumference ratio
3  Mild-malnutrition - 0.28 to 0.30 ratio of standard mid-arm circumference/ head circumference ratio
4  Moderate-malnutrition - 0.25 to 0.28 ratio of standard mid-arm-circumference/head circumference ratio
5  Severe malnutrition - less than 0.25 ratio of mid-arm circumference and head circumference ratio
5 Head and Chest Circumference Ratio

The Classification of Head/Chest circumference ratio was proposed by Kanawati and McLaren which includes two categories

1. Normal - less than 1 ratio of standard Head / Chest circumference ratio

2. Malnourished - more than 1 ratio of standard Head / Chest Circumference ratio

Other Indices are:

1. Willingness, Attention and expenditure (W.A E) on education of girl children

   An Index

   Parent's willingness to provide education, attention shown and expenditure incurred on the education the girl children were taken as an index. The index was prepared on a three-point scale. Parent's willingness was categorised into 1. Not Willing, 2. Moderately willing and 3. Highly willing.

   Parent's attention towards education of girl children was categorised into 1. Poor attention, 2. Moderate attention and 3. Highest attention.

   Parent's expenditure on education was categorised into 1. Poor expenditure, 2. Moderate expenditure and 3. Higher expenditure.

   Based on the cumulative scores of each respondent, the index was categorised into two

   1. Poor index and 2. Better index
2 Abuse of Girl children for every single fault and passing orders (P A-P O) by the parent An Index

The same criterion as mentioned earlier was adopted in constructing parents' abuse of girl children for every fault and passing orders. This was categorised into 1 abused well, 2 moderate abuse, 3 no abuse. Parent’s passing orders to girl to do work was categorised into 1 passing orders well, 2 moderate passing orders, and 3 not passing orders. Based on the cumulative scores, the index was categorised into 1 poor index, and 2 better index.

3 Treatment of the girl children for not helping the mother in terms of bringing water, cleaning the house and vessels (C.V-B W-C H) An Index

An index was prepared combining treatment to meet the girl children in terms of bringing water, cleaning the house and vessels. The index was prepared on an a three point scale. Mother's treatment of the girl child for not helping her in cleaning the vessels was categorised into 1 poor treatment, 2 moderate treatment and 3 treating well. Mother's treatment of the girl child for not helping in bringing water was categorised into 1 poor treatment, 2 moderate treatment and 3 treating well. Mother's treatment of the girl child for not helping in cleaning the house was categorised into 1 poor treatment, 2 moderate treatment and 3 treating well. Based on cumulative scores the index was categorised into 1 poor index, and 2 better index.
Editing and Coding of Data

The collected data was edited and made ready for coding. A code design was prepared based on the collected information and the entire data was coded in the code sheets.

Data Analysis

Coded data was fed into Computer. One way, two way and three way tables were brought out. Statistical analyses like significance tests, Regression analyses (logistic and multiple classification analyses) were performed. Child neglect and abuse formed the dependent variable for the logistic regression. Live birth was the dependent variable for the multiple classification analysis. Several independent variables were chosen for these regression analyses.

Report

Based on the analysis of data results were discussed. The ongoing account gives the following details.