

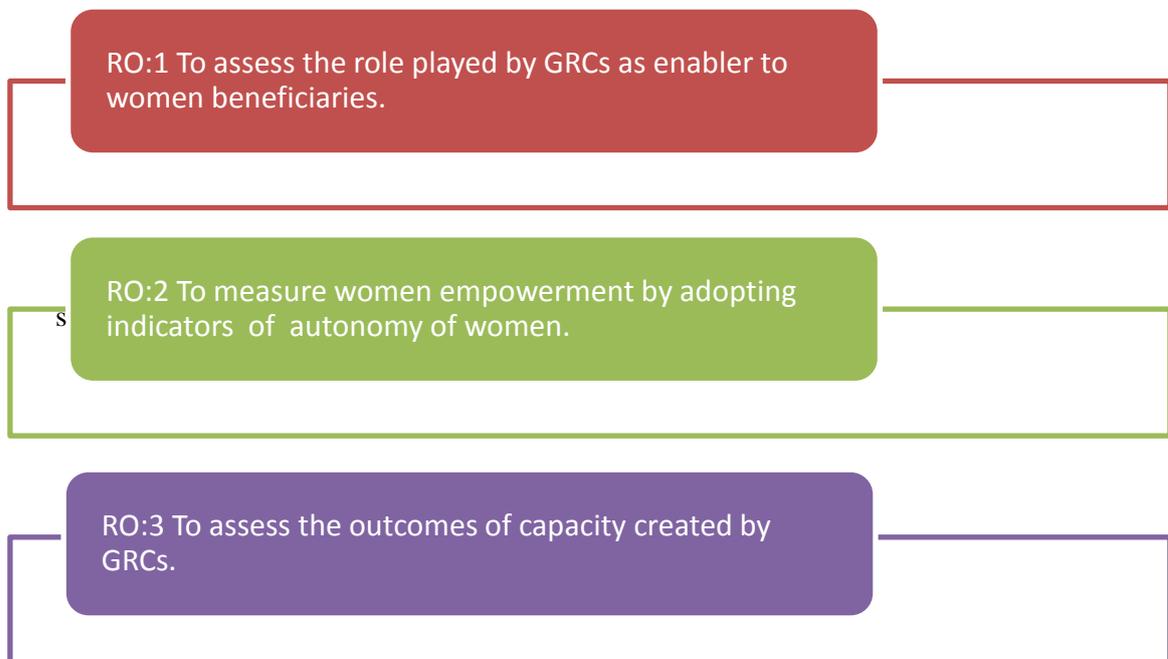
Chapter 3

Research Methodology

3.1. Introduction

This chapter presents the systematically organized methodology and the descriptive research design developed for the study, which proceeds step by step in order to materialize the objectives. This covers the selection of GRC, sampling, framework for evaluation for GRC, the methodology used for formulation of schedule, gestation period / period of participation of beneficiaries (i.e. the minimum period required to show the outcomes to be analyzed for evaluation purpose) , indicators to measure empowerment and tools for data analyses.

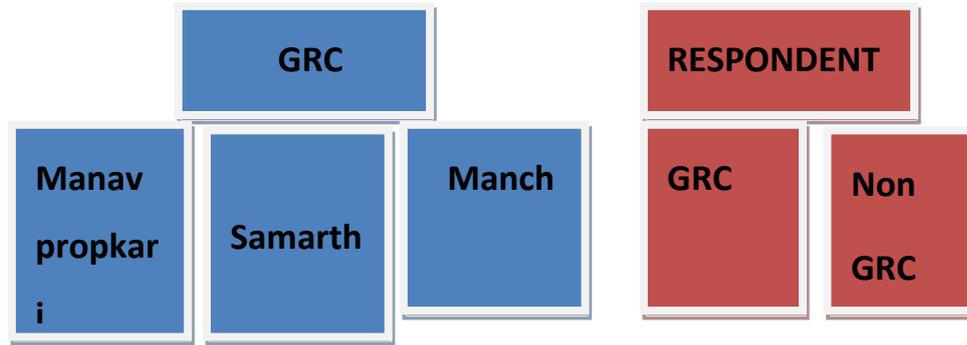
- **Research Objectives**



3.2. Location of the Study

As the title “Evaluation of GRC from Perspective of Chronic Poverty in Delhi” suggests that to obtain accurate, reliable and statistically useful information, a sample of representative GRCs and a sample of respondents and children would be drawn. A criterion for selection of a representative sample of GRCs, respondents and children would be fixed in order to address the research questions is evident from figure 3.2.

Figure 3.2



The need to select representative GRC is of prime importance which would specify the location of the subject. A sample of representative GRCs would be drawn from the large numbers of GRCs in Delhi (now the number is over hundred).

Selection of GRC is based on purposive sampling to serve the purpose of getting a more representative sample. Regarding the selection of GRC:

1. Samarth was selected as sample as it was first to be established as a GRC in 2002.
2. Manav Paropkari Sansthan was selected for the purpose of the study as it was one of the four oldest GRCs.
3. Manch was randomly selected from the list of GRCs from West Delhi, which were established before the launch of Mission Convergence, since West Zone has a maximum percentage of slums i.e. 28 percent.

The selection of oldest GRCs was done with the intention that these GRCs have passed through both the phases, Pre Mission Convergence and Post Mission Convergence and have embraced a long path where they got maximum opportunities to act as catalytic agent and facilitators making a direct interface between Government and target.

The areas under three selected GRCs in Delhi are inhabited by multi-ethnic, multi-cultural communities migrated across states in search of a better livelihood. Many out of the migrants end up worsening their economic conditions and fall in the trap of chronic poverty in the absence of social supporting networks. Lack of social networks increases likelihood of staying in chronic poverty (Kothari, 2002). The residents under consideration in those regions are predominantly migrants from Bihar, UP and Rajasthan, (besides some of them being non migrants) and have been facing multi-dimensional vulnerabilities or deprivations (non-economic proxy indicators of economic deprivations).

3.3. Unit of Application For Measurement of Empowerment

Conceptual maps to measure empowerment applied by Bolt and Bird (2003) consist of two domains: individual and community, while Alsop (2006) includes state, market and society measured at macro, meso and micro level (Alsop, Bertelsen, & Holland, 2006). The criterion used by N. Kabeer includes resource, agency⁹ and achievements at the micro level (Kabeer, Naila, , 2000). The report by the Chronic Poverty Centre in 2008-09 proposed gender empowerment, social inclusion, and increased agency as the three pillars for addressing the problem of chronic poverty (Chronic Poverty Research - 2, 2008-09). The present study would measure women empowerment at micro level.

3.4. Identification of Chronically Poor

Identification of chronically poor may be done by adopting any of these approaches:

- 1) Spatial Vulnerabilities
- 2) Nutritional Vulnerabilities
- 3) Educational Deprivations

The study of these multidimensional deprivations and vulnerabilities has been used to identify not only the poor but also the correlates of chronic poverty, which would enlarge the understanding of finding an escape route from poverty .

1. First approach maintains that residing in slums cannot be a matter of choice but a compulsion born out of poverty which may create conditions favorable to chronic poverty, as explained rightly said by Hulme et al (2001), (Hulme, Karen, & Shepherd, 2001). The susceptibility of extending the duration of poverty increases by living in pathetic conditions of slums, facing overcrowding , having no basic and adequate amenities is indicated by another study (Sudershan & Bhattachrya, 2006).
2. Radha Krishana et al (2006) used proxy indicators based on undernutrition / malnutrition. Since poverty and malnutrition are mutually reinforcing and women and children are more vulnerable to malnutrition due to unequal distribution of resources, households with at least one stunted child or a woman with CED (chronic energy deficiency) problem have been used to identify chronically poor from the layers of poor people. (Radhakrishna, Rao, Ravi, & Reddy, 2006).
3. It rightly shows the characteristic of chronic poverty being inter-generationally transmitted. Another approach to identify chronically poor households is the presence of two illiterate generations simultaneously.

The first approach would be used for identification of chronically poor respondents for the purpose of survey while the second and third approaches would be used to find interrupters to chronic poverty as outcomes of interventions of GRCs aiming at women's empowerment. Outcomes as components of

empowerment would be measured at household level, at individual level and at child's level. Sample consisting of women (GRC beneficiaries/Non-GRC beneficiaries) from a well defined universe of poor and vulnerable population was drawn on the basis of criteria of 'Spatial Vulnerabilities' living in precarious conditions not fit to be congenial for healthy and dignified life.

3.5. Criteria for Inclusion of respondents for survey

Under the present study a small sample of the universe containing poor and vulnerable households is considered as the representative of the entire population residing in slums (Notified or un-notified areas of Delhi). A respondent with at least one child below five (but not more than two children), was considered as sampling unit for household surveys. Children below five being dependent on their parents for decision regarding their well-being and well-becoming were selected for measuring their height and weight. Size of sample for conducting the present survey was equivalent to a camp organized by GRC which varies from 50 to 60 proximately. From a total sample of 220 respondents, 165 respondents would be selected from 3 GRCs (55 respondents from each GRC). A sample of 55 respondents of Non-GRC would be selected from different locations in Delhi, who have never been benefited by GRCs, but are facing similar conditions of poverty and deprivations identified as vulnerable by GRCs. For selection of respondents, criterion for achieving the aim of the study was fixed.

Before the criteria for selection of sample of respondents for both the groups is explained, there is a need to briefly explain the reason for having two groups, i.e. 1. GRC respondents, and 2. Non-GRC respondents in the framework required for evaluation of GRC mentioned below.

3.6. Framework Required For Evaluation of GRC

In order to carry out evaluation successfully W.M. Haven suggests to have information on "well established baselines, measurement techniques with solid quantitative and qualitative data and for addressing questions of attribution and counterfactual constructions – 'before and after' and 'with and without' considerations is essential" (North, 2002).

For constructing an estimate in the absence of base-line, a GRC group and Non-GRC group was investigated to find the difference between the two groups in selected sphere, by estimating the impact of one group as a result of participation in activities undertaken by GRCs and by estimating the level of Non-GRC respondents in the same sphere, having no links with GRCs.

Evaluation of GRC would mean finding the difference between the outcome at the micro level (beneficiaries) with interventions from GRCs and without interventions of any sort from GRC. David de Vaus (2009), proposed the method of difference in regard to the outcomes (Vaus, 2009).

Indeed what is happening with the interventions can be observed by identifying the outcome variable as a result of the interventions. However, finding the 'outcome without intervention' which is not

directly observable is not possible. Therefore, for this missing episode, the method used by Zaid et al (2008) would be used for the present study and that is the 'outcome of Non-GRCs' facing similar conditions of poverty and vulnerabilities for finding the difference on the assumption of identical samples of both groups, for the estimation of impact evaluation (Zewde, Zaid, & Tollens, 2008). However, Ravallion (2001) indicated the presence of observable differences in leadership qualities, in level of education, in motivation, in aspirations and capabilities of respondents of either of groups which may alter the result in different directions (Ravallion, Policy Research Paper 2665, 2001). Differences in caring practices would also result in differences in outcome, (Smith & Haddad). The bias on this account is known as selection bias, which can be dealt with randomization, as suggested by Zaid Negash, (2008) because in this method, every member of the eligible population has an equal probability of being beneficiary or non beneficiary (Zewde, Zaid, & Tollens, 2008).

Quantitative analysis may be able to measure statistically important qualitative areas of decision making for women; however, certain experiences of most intimate arenas of complex human relationships remain unexplored through the format of a highly structured and standardized questionnaire. Qualitative approaches have been successfully unveiling the unequal power dimensions of intra-household relations (Kabeer, Reversed Realities, Gender Hierarchies in Development Thought, 1994). Therefore, the study would apply qualitative approach also through interview schedule.

As it is pertinent to obtain information from informants, field study would be conducted to test the effect of independent variables related to gender centric programs on the dependent variables such as women's empowerment, change in one's lives, outcomes as components of empowerment.

3.7. Criterion For Selection of GRC Respondents (Sampling Unit)

All women beneficiaries of GRC in the age group of 15 to 49 years (reproductive age group), married, have at least one child and have been enrolled with GRC for any activity at least for three years from the date of interview for survey (though capacity building is an ongoing process but a gestation period of three years to show the outcomes to some extent is considered essential) have been considered as the eligible respondents. The selection of respondents who meet the criterion for the selection as GRC respondents (sampling unit) was made randomly from the source list of beneficiaries provided by respective GRCs.

3.8. Criterion for Selection of Non-GRC Respondents/Children (Sampling Unit)

Similarly the criterion of selection of Non-GRC respondents is as follows: all women facing 'Spatial Vulnerability', in the age group of 15 to 49 years (Reproductive Age Group), married and have at least one child and never been benefitted by GRC activities and who carry an equal probability of being benefitted by GRCs.

For measurement of body mass index of children under five (0-60 months), children from 220 households were also investigated by measuring their height and weight.

3.9. Gestation Period

As mentioned by W.M. Haven, the evaluation of impact of capacity development would involve judgment about the processes. Some would show immediate effects explicitly and others would take a long time in showing the results (North, 2002). Qualitative techniques supported by quantitative techniques allow inferences to be made easily with great accuracy.

Assessing and monitoring the impact of capacity building at micro level tends to get much closer to assessing personal behavior, which can be labeled as unfair and can be subjected to debate. Capacity is a moving target because capacity created at one period of time becomes irrelevant at some other period of time as societies keep changing continuously. Besides, capacity development is an ongoing process, a gestation period to show the outcomes to some extent is considered essential. But despite of this for evaluation purpose a key element 'Time factor' has to be given due consideration in connection between the 'change of capacity' to poor which means providing conditions for a dignified life. Assessing its consequence on health and education of children and women and also on their participation in choice making requires the need of a gestation period because conditions do not change over-night. Entrance of women into paid employment and reduction in coping strategies would act as an interrupter to chronic poverty. Since capacity development is an ongoing process, a gestation period of at least three years would be allowed to assess impact of any program on such indicators.

3.10. Indicators to Measure Women's Empowerment

The review of literature shows women's empowerment and its ameliorating role in the reduction of poverty. Engagement of GRC with several activities aims at women's empowerment (social, economic and legal) with the unshakable conviction that adoption of an approach to empowerment as a path out of poverty would require changes in the arrangements where oppression, marginalization and the subordination of women occurs. These three kinds of empowerment, though distinguishable, have crosscutting elements making these interconnected. The present study would analyze through a questionnaire whether women empowerment reflected through her participation in decision making within the household is thus identified as the "resolution of potentially conflicting preferences through a process of negotiation between unequals" (Kabeer, *Reversed Realities, Gender Hierarchies in Development Thought*, 1994). The bargaining power is reflected not only in the decision making power but also in the outcomes or fruits of household resource allocation.

The present study would measure women's empowerment of the target group that involves the selection of appropriate dependent variables that measure decision making power but also the outcomes or fruits of household resource allocation and shape the present study from 'Perspective of

Chronic Poverty'. The focus for measuring three dimensions of empowerment (social empowerment, economic empowerment and household empowerment) would cover following indicators:

3.10.1. Social Empowerment

Social empowerment is documented as the process of developing a sense of autonomy and capability to influence the direction of social change and aspiring to a better future (GSDRC: Empowerment and Accountability). It refers to a process of empowerment “whereby people develop a sense and capacity for agency – ‘individual power within’ and ‘collective power with others’-to improve the quality of their social relationships and to secure respect, dignity and freedom from violence and oppression due to uneven power relations and freedom of physical movement leading purposely or otherwise to change in institutions and discourses that are keeping them in poverty” (Eyben, Kabeer, and Cornwall, 2008) . The opportunity to strengthen social empowerment through grass-roots womens’ movements have been designed to improve their position, enabling them to have control on their fertility and control on their own body.

A process needs to be initiated which would enable to control the social forces (structures and relationships of power) which perpetuate gender inequality in rights and voice and enables women to have control on their life. By citing the examples of women empowerment in Bangladesh, Schuler et al (1997) show with strong conviction, that there is a strong relationship between the access to credit and the autonomy to control their fertility (Schuler, Hashemi, and Riley, 1997) .

Providing adult education, formation of self help group, organizing awareness generation programs specific to women, children's awareness programs, organizing health checkups, creating awareness on breastfeeding practices, organizing nutrition camps facilitate women's development, besides providing them easy and equal access to minimum services enabling them to realize their full potential and enhance participation in the decision making process.

Indicators such as freedom to visit family and relatives would reveal the access/denial of freedom of physical mobility have been used by National Family and Health Survey-2 to measure women’s empowerment.

For present study other indicators such as incidence of domestic violence, autonomy to regulate fertility, and their voice in terms of their reaction against domestic violence, have been used as autonomy over these decisions helps to find out escape routes from poverty.

3.10.2. Economic Empowerment

Naila Kabeer (2008) refers to the empowerment as the capacity of poor and disadvantaged people “to participate in, contribute to and benefit from growth processes in terms which recognize the value of their contributions, respect their dignity and make it possible for them to negotiate a fairer distribution of the benefits of growth” (Eyben, Kabeer, & Cornwall, 2008). Dr. Cheryl Doss

highlighted the significance of ownership of productive assets, which provides not only a means of income generation for women and help prevent health shocks but also empowers women (Report of International Forum, 2006) . As women become economically empowered , their horizon of influence in the household increases. The economic empowerment enables them to make strategic choices not only for their own interest but also for their children . Sue Ellen M. Charlton focused on the indicator regarding who controls the disposition of cash as a measure of economic empowerment. While women's participation in the acquisition and disposition of assets as an indicator of empowerment has been used in National Family and Health Survey-3 (Charlton, 1984) .

Expenditure on health and education of children which is a result of women's empowerment would be used as an indicator of economic empowerment. Autonomy of respondents in minor purchases as an indicator of women's empowerment has been employed by DHS and NFHS -3 to measure empowerment (NFHS-III, 2005-06). Personal expenditures of respondents and savings made by respondents indicate control of resources which is an indication of empowerment. Tenth five year plan indicated women's labor participation as an indicator of economic empowerment.

As envisaged in 10th Plan, the ultimate objective of making all potential women economically independent and self dependent, depends on the provision of training, employment and income generating activities, with both 'forward' and 'backward' linkages. Their enhanced labor participation and contribution of income in terms of school fees and health services for their children is felt and appreciated. Naila Kabeer (2008) emphasized on the increase in access to markets for poor agrarian women in rural areas for economic empowerment. Inequalities accruing due to power relation are manifested and visible in the market also.

3.10.3. Household Empowerment

Men are the dominant decision maker in the household. However, by supporting women in their capacities as decision maker, can have long lasting benefits for themselves. UNICEF (2007) advocated establishing informal women's organizations to tackle the issues such as nutrition, food distribution, education which would help her improve her position in the household . It would begin the process of encouraging equal rights to girls and women for generations to come (UNICEF, 2007).

But access to education would reduce dependency of women on children, especially sons. Nelly P. Stromquist recognizes provision of education as an appropriate strategy for the marginalized and disadvantaged women to achieve empowerment. Not just education but provision of medical care and hospitalization to both genders is a significant determinant of a child's welfare (Stromquist & Mankman, 1998). Besides access to education would improve her position and reduce the preference for son.

Men as head of the household by virtue of holding 'bread earner's position' are seen as capable of deciding what is acceptable in the family and in the community while women are seen in the capacity

of a doting mother, wife and daughter. Hence the tendency of diversion from the socially constructed decision making roles of men earlier considered as only their prerogative, onto women now, may be regarded as a positive sign of women's empowerment or beginning of empowerment. Decision to spend on goods of 'well-being' and 'well-becoming' of children tends to depend upon the autonomy of women as women tend to spend more on children than a man does.

The sub group constituted under working group of the National Commission on Population identified achievement of women's empowerment within and outside the household and development of children and adolescent as significant for stabilization of population.

The measurement of empowerment would cover the measurement of outcomes of household resource allocation.

3.11. Methodology Used For Formulation of Interview Schedule

For the specific purpose of evaluation of GRC from perspective of chronic poverty, information would be gathered from primary sources. For evaluation purpose, the information is required which can pinpoint outcomes that can be associated to GRC and its gender-specific activities.

Statistically significant information has been collected to achieve the desired objective to evaluate the gender resource centre from perspective of chronic poverty in Delhi, with the help of the well designed schedule.

For deeper insight of evaluation of GRC from a perspective of chronic poverty, qualitative backup of quantitative primary data is essential. In order to ensure collection of reliable information in an objective manner, primary data would be collected with the pre tested structured schedule on thirty respondents and later with a sample of 220 individual respondents from both the groups, directly through personal interview from field survey in an authentic manner. It was considered an effective means to generate qualitative data through face to face interview.

Keeping in view that the sample of the accessible population contains mostly illiterate or semi literate women and clarification of the central idea of the questions would be sought, the personal interview was a preferable option. Consent to participate voluntarily in the survey was obtained from the participants (who were selected on meeting the criteria, from the list of beneficiaries provided by the GRC staff) after informing them about the purpose and nature of the survey. Their confidentiality was also ensured. Interview for working women could take place only after six in the evening, that too by taking permission from their elders or husbands after their great deal of resistance and suspicion. Most of the times, interview could not be held uninterrupted.

3.11.1. Interview Schedule

The schedule includes a set of a number of short questions in a simple language with the objective to measure women's empowerment (economic, household and social) and certain outcomes of household, respondents and children. Some questions have been included to find out the effective source of information. The questions in the schedule are of following types:

1. Dichotomous
2. Multiple choices provided with specific alternatives covering a wide range.
3. Close ended type questions

Information to be collected with the help of schedule is divided into smaller set of questionnaires which includes questions on:

1. Personal profile of the respondents
2. General profile of the family
3. Economic profile of the household
4. Social profile of the household
5. Demographic profile of the household
6. Access to civic amenities and general profile of the area.

Besides these, specific questions were also probed by finding out GRC as an effective source of information on the topics which are related to different dimensions of life. It not only generates awareness but also encourages to apply them. Specific questions related to the perception of women regarding the right age of marriage of sons and daughters would also be asked to assess GRCs role as an enabler. Informal discussion would be engaged to explore the factors responsible for marriage of a minor child.

Questions specific to GRC respondents regarding their indulgence in type of activity and benefits which have brought significant changes in their lives experienced by women themselves in different dimensions such as education, financial independence, health , skill development, nutrition and safe cooking methods, confidence , legal were asked.

Autonomy of women (social, economic, and household empowerment) is considered as the measure of empowerment to achieve the second objective.

1. SOCIAL EMPOWERMENT

The indicators used for measuring social empowerment of women broadly include five questions pertaining to physical freedom, right to voice, and control over her body with regard to size of the family:

- i. **Freedom of physical mobility** (by asking questions to understand):
 - If she requires permission to visit family and friends.
- ii. **The freedom to voice against violence** (by knowing):
 - If she experiences violence at home.
 - The kind of reaction against violence.
- iii. **Control of fertility** (by asking):
 - On the use of condom as an area of independent decision making.
 - On decision making regarding size of household.

2. ECONOMIC EMPOWERMENT

The schedule includes nine questions pertaining to how income is generated, controlled and consumed/used, as indicators for measuring economic empowerment:

- i. **Women's labor participation**
 - Whether employed or not
- ii. **Savings held by women (in different ways)**
 - Holding an account or not
- iii. **Autonomy** over the use of resources for:**
 - Keeping money for self
 - Minor purchases
 - Expenditure of women
 - Expenditure of children

** Autonomy refers to the ability of self determination, independence and control over one's life.
- iv. **Her participation required for:**
 - Availing loan
 - Purchase of assets
 - Sale of assets

3. Household empowerment

Non-monetary indicators called proxy indicators used for measuring household empowerment. The schedule broadly includes seven questions pertaining to autonomy of women over allocation of life

sustaining resources, access to education and health care. It was investigated by probing into if they seek permission on these issues:

i. What to cook?

It is significant to know the right to adequate food and nutrition. Women as care giver can look after the nutritional requirements of children. It is imperative to know intra household resource allocation, by asking the question:

i. Who eats first?

And to understand the right to adequate food and nutrition, education is very crucial because through this gender bias prejudices operate, affect women's and child's well-being especially of daughter. It was probed how resources and responsibilities are shared by asking :

ii. Who eats first?

iii. Education of son,

iv. Education of daughter,

v. Medication and hospitalization ,

vi. Expenditure of husband on smoking and alcohol,

vii. Sharing of responsibilities by husband regarding :

viii. Household activities,

ix. Nursing of children,

x. Purchase of daily needs.

To have a better insight into the mechanisms of gender discrimination, Ratna Sudershan (2006) posed questions regarding intra- household resource allocation (Sudershan & Bhattacharya, 2006). In the present study some loose ended qualitative questions about the perception of women regarding the causes and the solutions to the poverty were also posed. Questions related to health of children were put indirectly, by asking preferable age of marriage of their sons and daughters.

For enlarging the understanding of issues pertaining to women respondents of both the groups, they were engaged through informal discussions which brought out certain important points, observations and experiences in the forefront for qualitative analysis. Some of the questions were modified after facing reality and ground conditions while scouting during pilot-study.

4. Outcomes of Women and Children as a component of Women's Empowerment

Better outcomes of health in terms of anthropometric dimensions, immunization, breastfeeding and education of children can be achieved through women's empowerment under the impact of awareness created on the significant subjects, participation in Self Help Groups and in activities undertaken by GRCs at least for three years. Therefore, questions regarding all eligible children of less than five in January, 2013 were asked. To assess nutritional status, measurement of their height and weight was also recorded in order to convert their anthropometric dimensions into nutritional index which

compares a child's body measurement with a reference population of healthy child of the same gender and age.

In order to compute Body Mass Index of respondents, height and weight of 220 women respondents of age 15-49 (reproductive age group) were also recorded . Isabel Gunther (2009), Ratna Sudershan (2006), Radha Krishna (2006), used Body Mass Index for adults and anthropometric dimensions of children as proxy indicators to identify chronically poor households by detecting cases of malnutrition (Gunther & Klasen, 2009), (Sudershan & Bhattachrya, 2006), (Radhakrishna, Rao, Ravi, & Reddy, 2006). Outcomes in terms of developmental consumption and change in income of GRC respondents in comparison to Non-GRC respondents would be analyzed to identify the correlates of chronic poverty. A participatory approach would be adopted to find the change in their perception and their lives, as women themselves are the best judge of the changes occurring in their lives¹¹.

3.12. Statistical Tools Used For Data Analysis

A total number of 165 respondents were interviewed with the help of staff of selected GRCs in their respective areas and 55 Non-GRC respondents were interviewed across Delhi.

After the completion of field-survey with informants in a day, initial editing and categorization of raw data was carried out . The information in the schedule was coded and fed in the computer by using Microsoft excel software and the entries of the code were corrected and verified manually very carefully . Qualitative data being textual in nature required to find out commonalities, differences, and patterns of impact to gain meaningful insight into the complex process . Statistical Package for Social Sciences-17 Version was applied for the statistical analysis. To perform the analysis of the objectives, following statistical tools were used:

1. Frequency distribution table

The agenda was divided into a set of questionnaires. The first set of questionnaire collected information on personal profile of the respondents, economic profile of household, social profile of household, demographic profile of household, and access to civic amenities and general profile of the area. Frequency distribution was calculated for the items which described the frequency options.

2. Mean and Standard Deviation

In order to understand the average as well as variance of each variable, the mean and standard deviation was calculated.

3. T- TEST

T- test is conducted in order to compare the means.

4. Correlation

Pearson correlation was applied to find the relationship between social, economic and household empowerment.

5. Chi- square

Chi- square is the sum of the squared difference between the observed and expected data, divided by the expected data in all possible categories. Chi- square would determine whether the difference is due to sampling error or whether it is real difference.

6. Z-Score

Formula to construct a Z-score .

A Z-score is a standardized score which indicates how many standard deviations an element is from the mean. A Z-score is calculated by subtracting the population mean from the actual individual score. This difference is divided by standard deviation of population. It is computed from the following formula:

$$Z = (X - \mu) / \sigma$$

Where

Z=Z-score

X=Value of the element

μ =Population mean

σ = Standard Deviation

For interpretation of a Z - score (HAZ-Score and WAZ-Score) refer to the Annexure 3.

7. HAZ-Score

Height for age Z-score has been calculated for 210 children under five using a WHO package. In Annexure 3, method to compute a Z - score for constructing nutritional index: HAZ (Height for age Z-score) to indicate the prevalence of stunting among children of under five, has been attached.

8. WAZ-Score

Weight for age Z-score has been calculated for 210 children under five, using a WHO package. In Annexure 3, method to compute Z-score for constructing nutritional index: WAZ (Weight for age Z-score) to indicate prevalence of stunting among children of under five, has been attached.

9. BMI (Body Mass Index)

Body Mass Index of 220 women would be computed. Method of computation of Body Mass Index used for the present study is given in Annexure 2.

3.13. Conclusion

Third chapter presents a research design revealing a systematic methodology adopted for the selection of GRCs, selection of an approach used to identify chronically poor respondents, sampling, gestation period, selection of various indicators, methods used in the construction of schedule to get data. It explained the purpose of statistical tools used for data analysis pertaining to three objectives. A method to measure BMI of women respondents and HAZ-Score and WAZ-Score to construct the nutritional index stating the health of children has been explained in this chapter.

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