CHAPTER-III
RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION AND RESEARCH DESIGN

Social research aims at testing the validity of the existing theories, developing new insights, supporting or strengthening a given theory, comprehending a social issue or analysing a given problem. A wide range of tools and techniques known as research methods are used to undertake social research. “Method refers to a range of techniques that are available to us to collect evidence about the social world. Methodology, however concerns the research strategy as a whole” (Henn, Weinstein and Foard, 2006: 9). Social science research in general and research in Sociology in particular can be broadly categorised in two polar paradigms based on the set of assumptions about the strategy to be used to conduct the research a) Positivism, which tries to draw from methods of natural sciences and emphasise on quantitative methods of analysis and b) The interpretative paradigm based on understanding and interpretation human action using qualitative methods of analysis. However, this distinction is superficial as there are a series of other paradigms which fall within the spectrum between these two poles. Empiricism, realism, relativism, social constructionism, idealism, critical perspectives, standpoint epistemology, postmodernism etc. are some of the paradigms of social science research (Henn, Weinstein and Foard, 2009: 11).

The eighteenth century enlightenment period, which marks the emergence of science of society, witnessed the emphasis on positivism and empiricism as a major approach to social research. It was based on observation, experimentation and collection of empirical facts to establish or discover laws of society. Thinkers from this school believed that scientific approach to understand society assures valid and accurate knowledge of social life. Research, for them need to be value-free and neutral from the subjective experiences of the researcher. Causality, validity, standardization, universalisation and generalisations were the major preoccupations of this research method (Bryman, 1988: 24).

This traditional approach was extensively criticised by the critical thinkers of 1960s and 1970s with the advent of new social movements. With the beginning of the emancipatory social movements including the feminist movements in 1970’s, there was a call for an approach which would change the society for the better. Drawing inspiration from the
Frankfurt school of Social Research, critical social researchers contended that social research should serve an emancipator’s role for oppressed groups within the society. These criticisms to positivist social research can be located in the theoretical framework established by scholars from the Frankfurt school comprising of J. Habermas, Horkheimer, Adorno on one hand and the anti-racist movements, feminist movements on the other. Similarly phenomenology introduced by E. Husserl as a philosophical movement is also widely advocated by social researchers. A phenomenological study describes the common meaning of several individuals of their lived experiences of a concept or a phenomenon (Creswell, 2013: 76). In Sociology, phenomenology, as propagated by Schutz, attempts to grasp a phenomenon as experienced commonly by a group of people in their social world (natural setting of their everyday life).

A major critique to the traditional positivist approach of value free and objective research came from standpoint theory or a standpoint model of research. They largely critiqued the production of knowledge through the voices of the dominant groups of society and then being established as a standardised source of knowledge. It involves the assumption that different social positions produce different experiences and therefore lead to different types of knowledge. A researcher, hence, should engage with the experiences of socially oppressed and marginalised groups. The knowledge derived from this is left to provide a more valid account of the social world than adopting an apparently ‘neutral’ or ‘objective’ stance (Seale, 2004: 510).

While proposing standpoint theory Sandra Harding (1998), argues that “the experiences and lives of marginalised people, as they understand them, provide distinctive problems to be explained or research agendas that are not visible or not compelling to dominant groups. Marginalised experiences and lives have been devalued or ignored as a source of important questions about nature and social relations” (Harding, 1998: 151 as cited in Seale, 2004: 26). Sociologists and social anthropologists propagated this theory to undertake in-depth, emancipating and egalitarian researches. Feminist researchers too drew heavily from the standpoint epistemology.

Advocating standpoint epistemology in feminist research, Sandra Harding (1987) argues, “Method for a feminist researcher is an evidence gathering process which is centred on listening to (interrogating), observing behaviour or examining historical traces and records” (Harding, 1987: 3). That means feminist researcher may use the same methods that
the mainstream, androcentric researchers have used. But, precisely how they carry out these methods of evidence gathering is strikingly different. Methodology includes the choice and application of research methods to establish theories. For Harding, a methodology is a theory and analysis of how research does or should proceed; it includes accounts of how “the general structure of theory finds its application in particular scientific disciplines” (Harding, op cit: 3-4).

Based on these assumptions, the present study locates itself in the mainstream sociological research paradigm like standpoint epistemology as also advocated by feminist research scholars, with an aim of collecting experiential data from the field. Women’s location in Vadodara in terms of her class, caste, religion and socio-economic background and her life experiences from everyday life shapes her attitude towards the family and its size and sex composition and hence, the research design selected for the study is standpoint epistemology to gauge the experiences of women in their location.

3.2 QUALITATIVE, QUANTITATIVE AND MIXED METHOD APPROACHES

Data collection in social research is broadly classified into quantitative and qualitative methods of data collection. Quantitative research techniques, based on statistically representative sample, translate individual’s experiences in predefined categories and emphasise more on the objectivity and universality of the research. Qualitative research techniques on the other hand takes into consideration the experiences, emotions and understanding of the given situation and interpretation of the same with subjective and contextual perspective. The word qualitative implies an emphasis on processes and meanings which are not rigorously examined or measured in terms of quantity, amount, intensity or frequency. It stresses the socially constructed nature of reality, the intimate relationship between the researcher and what is studied. In qualitative research, researcher seeks answers to questions which stress how social experience is created and given meaning, it underlines the value-laden nature of inquiry, where as the quantitative analysis emphasize on the causal relationships between variables and not processes (Denzin and Ryan 2007: 582-583). Between these two extreme forms of analysis lies the mixed method approach which attempts to combine both.

Social science research often views quantitative and qualitative approaches as a polar opposite categories or dichotomies. However, as many like Creswell (2009) argue that
they aren’t polar opposites but “they represent different ends on a continuum, a study tends to be more qualitative than quantitative or vice versa”...mixed methods on the other hand is a research that resides in the middle of the continuum because it incorporates elements of both qualitative and quantitative approaches” (Creswell, 2009: 3).

The Positivist perspective advocates and insists on quantitative methods of data collection, and on the other hand the interpretative and standpoint school consider qualitative approach as the effective tool of data collection. The latter criticise the former for its objective and hegemonic approach whereas qualitative methods are often critiqued for the absence of neutrality and universality. Based on these two extreme schools of thought, currently in social sciences ‘mixed method’ approach that integrates quantitative and qualitative methods is used extensively. “So far as research practice is concerned, combining quantitative and qualitative research has become unexceptional and unremarkable in recent years. Indeed, for some writers it has come to be seen as a distinctive research approach in its own right that warrants comparison with each of quantitative and qualitative research” (Bryman, 2007: 97).

3.2.1 QUANTITATIVE RESEARCH

Quantitative approaches are associated with positivist perspective in social science research. Hammersley (1993) defined quantitative approach to research as “adoption of the natural science experiments as the model for scientific research, its key features being quantitative measurements of the phenomenon studied and systematic control of the theoretical variables influencing those phenomena” (as cited in Henn et al, 2009: 134). It involves collection of data using standardised approach on a range of variables and search for patterns of causal relationships between these variables.

Quantitative approach generally uses statistical sampling methods to arrive at standard, objective and universal results. One of the main methods used in this approach in social science is social survey. Social survey enables generation of large quantifiable data from the people who are known to be representative of a wider population (Bryman, 1988: 11). The census data and several other reports like civil registration system (CRS), National family and health survey reports (NFHS), reproductive and child health reports (RCH) which are generated by Government and semi government bodies are a few examples of data collected through quantitative methods.
The major components involved in quantitative research are a) Causality: the major preoccupation of quantitative research is to establish causal relationship between variables. b) Generalisation: Researcher’s concern in quantitative method is to establish that the results of a particular investigation can be generalised beyond the confines of the research location. c) Replication: replication can provide a means of checking the extent to which findings are applicable to other contexts. It is often seen as a means of checking the biases of the investigator. d) Individualism: quantitative research tends to treat the individual as the focus for empirical inquiry (Bryman, 1988: 39) Apart from these components, quantitative research also emphasise on objective and value-free research.

Since the present study draws heavily from the census records, trends and transition in child sex ratio (CSR) and data from National Family and Health survey reports (NFHS) which includes quantified demographic data, it partially adopts quantitative research approach. However, depending solely on quantitative methods with the emphasis on value neutrality and objectivity may prove to be a hurdle in gaining insight into the real life experiences and attitudes of the participants. And so, it is combined with the qualitative research methods.

3.2.2 QUALITATIVE RESEARCH

In the last couple of decades, the social science researcher’s community, particularly standpoint research community has engaged in a dialogue concerning the use of quantitative versus the qualitative research techniques. The advocates of standpoint epistemology often look at quantitative methods as limited in its scope to include the voices of all sections of society. The emphasis on objectivity and value-free research might be a hurdle in collecting real life experiences and everyday life in its natural settings. Oakley, for example, suggests that “quantitative methods, in the form of surveys and experiments, manipulate people who are used for the purpose of the research simply as information-rich units” (Henn et al, 2006: 36). Quantitative research is often criticised of making the respondents “subjects” rather than participants.

Qualitative research can be defined “as an approach to the study of the social world which seeks to describe and analyse the culture and behaviour of humans and their groups from the point of view of those being studied” (Bryman, 1988: 46). It can also refer to “the study of one or small number of cases, often over a lengthy period of time…intensive,
detailed study involves the collection of large quantities of data from a small number of informants and settings” (Henn et al, 2006: 156). “It entails the sustained immersion of the researcher among those whom he or she seeks to study with a view to generating a rounded, in-depth account of the group, organization or whatever” (Bryman, 1988: 45).

This method of data collection (qualitative) often used indifferently with participant observation was popularized by anthropologists like Malinowski in the name of ‘ethnography’ early in 20th century. As put forward by Denzin and Ryan (2007), “In North America qualitative research operates in a complex historical field which crosscuts seven historical moments...ranging from traditional in 1900-1950 and then passing through the modern, interpretative, narrative, postmodern, post experimental and current phases of social research” (Denzin and Ryan, op cit: 578). The rise of hermeneutics, structuralism, semiotics, phenomenology, cultural studies and feminism in social science arena created a positive atmosphere for development of qualitative research methods.

In qualitative research the researcher’s primary goal is an understanding of the social processes rather than obtaining a representative sample. Hakim (1987) has distinguished between the quantitative (survey) method and qualitative research as “if surveys offer the bird’s eye view, qualitative research offers the worm’s eye view” (Hakim, 1987: 28). Qualitative research is a multi-method in focus, involving an interpretative, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret these things in terms of the meaning people bring to them. It uses a wide range of techniques like case study, personal experience, introspection, life story, interview, and observational, historical, interactional and visual texts (Denzin and Ryan op cit: 580).

This method is widely advocated by standpoint epistemologists in general and feminist research scholars in particular. Some of the arguments in favour of qualitative methods by feminist researchers are as follows.

- Women’s experiences have not been articulated and conceptualized within social science. Quantitative methods have concealed women’s real experience, and hence there is a need for a qualitative method which permits women to express their experience fully in their own terms (Jayaratne and Stewart, 1991: 89).
In qualitative research, there is closer degree of involvement with those who participate in the research, and consequently a greater sensitivity to the rights of participants as people, rather than an object of research (Henn et al, 2006: 37)

Feminists believe that women possess intuitive ability to relate to people and are natural facilitators of conversation and hence, connect well with tools of qualitative research such as life histories, focus group, case study, personal interview etc.

Qualitative research is often criticised on its limitation to accurately reflect the phenomenon under investigation. Generalisations based on observation or in-depth interviews are often challenged by the positivists or advocates of scientific studies. The reliability of the structure and system in qualitative research methods are also questioned. Gaining an access in the field or in the natural setting is often a difficult task for the researcher. Establishing a rapport and gaining trust of the respondent is a major challenge because there has to be a complete elimination of the fear of breaching the privacy or being exposed to an unknown world. The respondents often alter or modify their behaviour once they are aware of being researched. Qualitative research and particularly participant observation also poses a danger of ‘going native’ i.e. developing too emphatic a view of group studied through too close an identification and prolonged stay with them (Henn et al, 2006: 177). The selection of the respondents, views, experiences and incidence are often influenced and determined by what researcher considers significant. Researcher’s bias in the setting selected, people studied, data recorded, data filtered out and the interpretation of the data might result in a distorted accounts from the field.

However the reliability of the data can be very well justified by providing the field notes, documentation, audio-video recordings from the field. The rigor of the study is maintained by these tools. Researcher’s bias is equally present in the quantitative research methods as well where the version of ‘truth’ and the selection of representative sample both are influenced by the researcher’s choice. Qualitative data when analysed with coding and content analysis its validity and applicability increases manifold. The representativeness of the sample selected is often justified for the group for e.g. in case study method the cases selected are representative of the group being studied. Reliability and validity can also be proved through the repetitive testing and re-testing of the account through probing questions in an interview or a prolonged stay in participant observation which helps to check the experiences time and again. Neutrality (absence of subjective bias) is often substituted with
conformability which is achieved through auditability [sic], truth value and applicability of the results (Sandelowski, 1986: 33). In fact, the detailed report writing with the richness of data in terms of experiences and emotions which often get neglected in scientific research gives qualitative research an upper hand over the other.

In view of the challenges posed by quantitative method of lacking representativeness, in depth and inclusive data on one hand and of qualitative methods of being subjective, and lacking in validity and reliability on the other, this study is using mixed method approach to overcome these challenges and to strike a balance between the representativeness and validity of the data along with in-depth and rich account of the experiential data.

3.2.3 MIXED METHOD RESEARCH

It is an approach to enquiry that combines or associates both qualitative and quantitative forms. It is more than simply collecting and analysing both kinds of data; it also involves the use of both the approaches in tandem so that the overall strength of the study is greater than either qualitative or quantitative research (Creswell, 2009: 4). The origin of the multi-method is in Psychology in 1959 by Campbell and Fisk. However, in social science research, it has been promoted more in last one decade. Recognising that all methods have limitations, researchers felt that biases inherent in any single method could neutralise by this set of method. (ibid: 14). Mixed methods use the strengths of both qualitative and quantitative methods. Social sciences and health sciences, where the problems are complex in nature, and are not possible to study with any one single approach, widely advocate the use of mixed method approach.

Mixed method approach also known as multi-method approach is defined as “a type of research design in which qualitative and quantitative approached are used in types of questions, research methods, data collection and analysis procedure and/or inferences” (Tashakkori and Tedllie, 2009: 7). Another definition that appeared in the Journal of Mixed Method Research is “Research in which the investigator collects and analyses the data, integrate the findings and draw inferences using both qualitative and quantitative methods in a single study or programme of inquiry” (Tashakkori and Creswell, 2007: 3).

In the present study, the attempt is to collect women’s voices on the issues of reproduction, ideal family size and composition to gauge their attitude towards the son-
preference and daughter aversion. Although scholars from standpoint epistemology and feminist research advocate use of qualitative methods to collect women’s lived experiences from their everyday life, the mixed method research approach provides for a unique knowledge excavation tool. The numerical and statistical data related to the sex ratio, CSR and its relation with the socio-economic variables collected by various demographic institutions can be analysed through the quantitative methods which can be further probed or analysed with the attitudinal responses of women to questions pertaining to the socio-cultural practices and beliefs with qualitative methods of data collection.

Amongst all the mixed method models developed by psychologists and other social science researchers, triangulation method is the most primarily and widely used method. In triangulation approach the researcher collects both quantitative and qualitative data concurrently and then compares the two databases to determine if there is convergence, differences or some combination. The present study can be located within the triangulation approach where in the census and other demographic data forms the quantitative base for the research and simultaneously qualitative data is collected from the field with the help of interview and focus group discussions to confirm or cross validate or establish connection between the two sets of data bases. The two tools used in this study are personal interviews and focus group discussions. The scope of these methods along with their strengths and weaknesses are discussed in detail in next section which also aid in justifying their use in the study to some extent.

3.3 PERSONAL INTERVIEW

Interview is an oral-verbal method of data collection. As rightly put forward by Allport (1949) “if you want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do—why not ask them?” (Allport, 1949 as cited in Wilkinson and Bhandarkar, 1977: 183). Although interview has always been a dominant method in social science research, it is the personal interview which enables a face-to-face, in-depth conversation with the participants. “The survey interviews with a structured format are one way process with hierarchical relationship between the interviewer and interviewee. Personal interview ensures a rapport and reciprocity in the interview” (Bryman, 2001: 326). Unlike structured interview or a questionnaire, in-depth one-to-one personal interviews are open ended, using a schedule or aide-memoires (Henn et al, 2006: 162). They are designed to explore the issues in detail with
interviewee, using probes, prompts and flexible questioning styles. Respondent’s emotions, experiences, silence and pauses all become the accounts of the research. It is believed that women are more comfortable in a conversational set up rather than answering questions as passive objects of research and hence, Personal interview has gained popularity in feminist research methods.

The qualitative interviews or personal interviews are further classified into Unstructured and semi structured interviews. In unstructured interview as the name suggests there is complete flexibility of questions asked. There are only a few set of questions just to prompt or probe the respondent used as aide-memoire. It is very similar in character to a conversation. It enables to get a detailed account of the problem in question specially to collect specific responses from the experts in particular field. On the other hand semi-structured interviews have a list of specific questions related to the topic to be covered. But there is not fixed order in which they should be asked or answered. There may be impromptu addition or elimination of questions. Here the list of questions resembles more to an outline or interview guide and not a questionnaire. However interviewer tries to include all possible questions from the list. Semi structured interviews are used when more than one case or cases from cross sections are to be studied. In order to derive at some uniformity or across-case comparability in the questions asked and responses respectively, a semi-structured interview is conducted. Here the focus is fairly clear and the list includes direct, indirect and probing questions which are open-ended in nature. The response is not limited to any fixed categories or options.

3.3.1 STRENGTHS OF PERSONAL INTERVIEW

- Respondent’s own frame of reference, own language; own concepts and their meaning enables the researcher to build an easy rapport in the field at the same time it ensures high level of reciprocity as well.
- There is much greater interest in Interviewee’s point of view, ‘rambling and going off at tangents’ is often encouraged as it gives an insight in to what interviewee sees as relevant and important.
- There is a great level of flexibility in the manner and order of questions asked depending on the interviewee’s responses.
It gives a rich account of the ways in which research participants or respondents view their social world. It gives rise to a non-hierarchical relationship between the researcher and respondent, which makes it one of the most preferred feminist research methods.

The validity of an interview can be checked through probes which are not possible in a highly structured questionnaire.

Recording of the interview ensures the reliability as it can be open for public inspection or re-checking the interpretations of the findings.

3.3.2 LIMITATIONS OF PERSONAL INTERVIEW

It poses a heavy demand in terms of time, money and energy. Extensive travelling and non-availability of the respondent are challenging for the researcher.

Establishing a rapport requires a great deal of expertise and skill on the part of the interviewer.

The interviewer’s presence might make the interviewee conscious or over stimulate him/her resulting in biased or imaginary answers.

Data dealing with deviant behaviour is difficult to be gathered through interviews.

3.4 FOCUS GROUP DISCUSSION

Compared to other qualitative research methods like individual interviews and participant observation, the focus group is a relatively new method. Originally called the focused interview, focus groups are a particular kind of group interview (Denzin and Ryan, op cit: 584). Morgan (1998) explains how focus group developed in three phases, first during the 1920s, social scientists used the technique for a variety of purposes, one of the most important being the development of survey questionnaires. Second, between World War-II and the 1970s, Focus groups were used mainly by market researcher to understand people’s wants and needs. Finally, from the 1980s to the present focus group interviews have been used by various professionals to do research. For instance on issues dealing with health by Morgan, mass communication by Merton, education by Lewis amongst others (Morgan, 1998 as cited in King and Horrocks, 2010: 61).

Focus group interviews, in general are unstructured interview with more than one subject. It focuses on the multi-vocality of participant’s attitudes, experiences and beliefs. They are the form of group interviews which capitalizes on communication between research participants in order to generate data (Kitzinger, 1995: 299). As defined by Lederman, “A
technique involving the use of in-depth group interviews in which participants are selected because they are a purposive, although not necessarily a representative, sampling of a specific population, this group being ‘focused’ on a specific topic” (Rabiee, 2004: 655).

In focus group method also popularly known as focus group discussion (FGD), there are at least 6-8 or a maximum of 12 participants along with the researcher who is known as a moderator or facilitator. There is an emphasis on a precisely defined topic. The respondent are selected on the basis of this topic and often classified on the basis of age, class, gender, education, occupation, experience etc. The participants should have some shared attributes in terms of experience, opinion-position, and socio-demographic characteristics to avoid complete heterogeneity and in turn a chaos in the FGD. The moderator is also a facilitator and expected to encourage participants to discuss topics, to challenge opinions expressed by others and to direct the discussion in the correct direction if it seems to go off tangent. Along with the conventional interview guide, the moderator may also use sentence completion exercise and visual aids such as show cards, leaflets, newspaper clippings and videos (Henn et al, 2006: 165-166). Tape-recording of the session with a prior consent from the participants ensures validity and reliability of the FGD.

Although both the personal interview and focus group aims at collecting data through communication, reflecting thoughts, feelings, opinions, responses, however, the intention in focus group is to stimulate discussion among people and bring out the responses that otherwise might lay hidden or latent. As Blumer explains in favor of this method, “A small number of individuals, brought together as a discussion or resource group, are more valuable many times over than any representative sample. Such a group, discussing collectively their sphere of life and probing into it as they meet one another’s disagreements, will do more life their veils covering spheres of life than any other device that I know of” (King and Horrocks, op cit: 61)

3.4.1 STRENGTHS OF FOCUS GROUP DISCUSSION

- Focus group discussion as a technique allows the researcher to develop an understanding of ‘why’ people feel the way they do. There is a possibility that participants might modify or alter their views during the discussion giving researcher a more realistic account of what people think.
FGD offers the researcher the opportunity to study the ways in which individuals collectively make sense of a phenomenon and construct meaning around it (Bryman, 2001: 338). This specifically helps in feminist research where in sensitive issues and construction of their meaning in their everyday life needs to be brought together.

This technique is indeed seen as more naturalistic as it is closer to everyday life than the individual encounter with a lone interviewer (King and Horrocks, op cit: 62).

It encourages recall and stimulates opinion elaboration. It engages participants in a re-evaluation of their existing position. Views are subject to amplified, qualified, amended or contradicted when expressed as part of a group interview. (ibid: 62)

Group participation also enables to explore different forms of vocabulary of the participants like jokes, anecdotes, teasing and arguing which helps to understand the group norms, normative constructions and sub-cultures within the community.

Audio and video recording of the proceedings makes it convenient to analyze the data and enhance the reliability and validity of the technique.

### 3.4.2 LIMITATIONS OF FOCUS GROUP DISCUSSION

- It is difficult to manage FGD as there is a possibility of few participants trying to dominate the session excluding the others, which in turn suppress some voices of dissent. However a skilled researcher will try to balance such a situation to maximize the responses from all.

- The large amounts of data collected are difficult to analyse. To identify the patterns of communication and use them in transcription is a herculean task. However effective coding might solve this problem.

- Organizing a group and assurance of their turn up is difficult. Pursuing them to make themselves available at a particular time and their agreement to speak up is quite challenging especially if the issue is a taboo.

- Compared to participant observation the presence of the facilitator might influence the responses posing questions regarding the authenticity of the interaction. But probing and cross checking is possible to keep the authenticity under check.
3.5. RESEARCH METHODOLOGY IN PRESENT STUDY

The demographic and statistical analysis of the problem of declining CSR is widely undertaken by demographers and socio-economists through the quantitative analysis using the census reports, civil registration data, and NFHS data. The data analysed enable them to co-relate the variable at the district, state or national level. Nevertheless there is a need for an extensive study to probe into the causal relationship between the variables like literacy, caste, class, community traditions and normative constructions, access to modern reproductive technology and legal implementation of the act and its impact at a micro level. These variables create a very diverse picture in every locality. These are the variables, which affect the choices of family regarding the size and sex composition of the family. And these choices later influence the sex ratio and CSR of the country.

This study aims at examining the problem of declining CSR in Vadodara city with special reference to its causes, impacts and campaign. It is an in-depth socio demographic study using mixed method research approach integrating quantitative and qualitative methods. It draws heavily from the quantitative demographic data to analyse the trends and transition of sex ratio and also to locate the specific decade in which the decline is the sharpest. At the same time to understand the causes of such a decline needs an experiential data collected from the field with a qualitative approach. The study focuses on understanding not just the trend of CSR/juvenile sex ratio (0-6 years) but also the normative constructions regarding gender bias which leads to the misuse of technology to abort female foetus. It aims at examining the role of women in decision making process regarding her reproductive health, size and composition of the family. These aspects of women’s lives are personal, subjective and contextual and to gauge them specific research tools are required. This study uses the broader framework of standpoint epistemology as a research design with mixed method approach to conduct the research.

3.5.1 TOOLS OF DATA COLLECTION

The study is conducted with the help of secondary data collected from published and unpublished resources and works and primary data collected from the field. Secondary data from census reports, reports from local self governing body like municipal corporation records, archival material, reports from ministry of health, campaign material (both informative and communicative) provided by various Non- Government organisations
The primary data collection from the field study is undertaken with personal interviews and focus group discussions being the two main methods of data collection. Although the main approach to the process of data collection has been qualitative, for better representation of the demographic details of the respondents, tabulation and other graphical forms of presentation is used. It does not attempt to ‘quantify’ the data collected since the focus is on the ‘responses’ in the field and it is nearly impossible to effectively quantify or categorise responses. The tables and graphs used are purely for the purpose of vivid and clear representation of the demographic profile of the individual representation.

Taking into consideration the flexibility and reliability of the interview method, this study uses a combination of unstructured and the semi-structured interview method with a list of close ended and open ended questions. Since the purpose of the study was to assess the possible causes of declining CSR in the city and also to get an overview of attitude towards the girl child in Vadodara, the interview schedule consists of certain direct and probing questions. In totality there were four sets of interview schedule, where in the one used for conducting interviews with the general population was a semi-structured one. Whereas the other three used for interviews with medical professionals, legal professional and marriage bureaus were unstructured with basic pointers and guidelines to conduct the interview.

The main interview schedule used for the general population was divided into three major sub sections, where the first part (A) is dealing with the demographic details and reproductive history of the respondents. The second section (B) deals with the attitude towards the girl child and factors affecting son-preference. And the third section (C) comprises of set of questions dealing with SD, SSA, PCPNDT and the impact CSR in society. The respondents include a cross section, in terms of caste, religion, sex, economic and educational background. Taking its diverse nature into consideration, semi structured interviews helped to get a uniformity and cross section comparability of the responses. Responses to the close ended questions are occasionally tabulated for effectual representation.

Since sex determination (SD) and sex selective abortion (SSA) cannot be conducted without a medical assistance, it was necessary to understand the role played by medical
practitioners like gynaecologists and radiologists as important stakeholders in the practise of SD and SSA. Similarly to understand the strengths and loopholes in PCPNDT Act and the impact of its implementation, interviews were conducted with legal practitioners. Researchers from the field in their previous studies have experienced the impact of declining CSR on institution of marriage in form of dearth for brides followed by bride purchase or bride trafficking. To examine this phenomenon in Vadodara, officials from marriage bureaus operating in the city were interviewed. To understand the impact of campaign to save the girl child in the state, representatives of civil society organisation who are involved in the campaign directly or indirectly were also interviewed.

For conducting research with experts from legal machinery, medical fraternity, civil society organizations, it was necessary to just guide the interview with the focus on the problem and give enough scope and freedom of response based on their experiences. Hence, separate interview schedules with basic pointers or open ended questions were framed. The interviewer was present to conduct and personally administer all the interviews.

Another method used is Focus Group Discussions (FGD). Since this study is trying to look at SSA as an outcome of normative constructions of girl child and son-preference, it is important to understand the attitudes of women on the issue. Since the FGD helps to bring out latent experiences and opinions, women can feel free to talk on the issues defying the taboo attached to sex selection and SSA. The issues of reproduction and family pressures in decision making regarding size and composition of the family are often topics of discussion amongst a gathering of women from same demographic profiles. Directing such a gathering through a facilitator in an FGD set up provided a rich and reliable account on the issue. A schedule with pointers to direct the discussion was used for FGDs. An audio recording of all the FGDs was done with the prior consent of the participants to maintain authenticity and validity of the research.

3.5.2 SAMPLE SIZE

The present study is based on a total of 250 respondents as the sample of the study. The sample was selected based on purposive sampling method with willingness and availability of the respondents to participate in the research. This includes individual respondents, medical practitioners, legal practitioners, civil society organisations, marriage
bureaus, government officials, PNDT committee members, academicians and experts from the field. A detailed division of the sample is as follows.

- **General population of Vadodara** - This includes 150 individual respondents across gender, age group, class, caste, religion and linguistic groups. An attempt is also made to maintain a balance between different marital status which includes married, single and widowed respondents, rate of employment and nature of employment (business/service), nature of family (joint or nuclear), number of children and sex composition of children in the family. The approximate population of Vadodara city was nearing 15,00,000 when the study was proposed in 2009-2010. Since the study was a qualitative and in-depth one, systematic stratification of the population for selecting a sample was not viable. These 150 respondents are selected as a representative group of the entire population of the city.

- In total five focus group discussions are conducted with a total of 60 women in all. The minimum number of women in a group was 7 and the maximum was 16. Two of these groups are selected from lower income strata in slum areas belonging to Hindu and Muslim community respectively. Other two groups consist of middle class working women from public sector establishment. The fifth group is of elite, literate women who were culturally inclined towards music and literature. These discussions lasted from 20 minutes to maximum 40 minutes. An audio recording of all the FGDs was done with their prior consent. The details of the participants of the FGDs follows

- **Medical professionals** - A total of 11 medical practitioners were interviewed for the research in which 8 were gynaecologists and 3 were radiologists. From all of the 8 gynaecologists, 6 were private practitioners, 1 was serving in a private hospital and 1 in a government hospital. All three radiologists were practising from their private radiology centres. A balance was maintained in the location of the medical practitioner’s clinic in terms of lower class, middle class and upper class localities.

- **Civil society organisation** - Activists from 9 civil society organisations of Vadodara and the neighbouring city of Ahmadabad were interviewed. The civil society organisations in Ahmadabad were part of the campaigns for saving the girl child or were working for women’s health across the state and hence were included in the present study.
Legal professionals- 5 legal practitioners of Vadodara, particularly specialising in criminal law, were interviewed for their opinions on PCPNDT Act.

Marriage bureaus- 5 officials from marriage bureaus operating in Vadodara were interviewed to understand the impact of declining sex ratio on the institution of marriage. These bureaus work on particular caste based matrimonial alliances. The bureaus were randomly selected but attempt was made to maintain a balance in the selection on the basis of communities. Each of the 5 marriage bureaus selected were specializing in arranging alliances based on specific caste or community. The communities include Vaishnavs, Brahmins, Patels, Jains and so on. All the bureaus were located in different parts of the city covering middle class location to elite locations. They all were operating in the city for more than 15 years.

A total of 10 respondents included government officials, member from PCPNDT committee, academicians and experts from the field.

### TABLE 3.1

**SAMPLE SIZE OF THE RESPONDENTS**

<table>
<thead>
<tr>
<th>Category of Respondents</th>
<th>Respondent (in no.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewees (General population)</td>
<td>150</td>
</tr>
<tr>
<td>Women in FGD</td>
<td>60</td>
</tr>
<tr>
<td>Medical practitioners (Gynaecologists and radiologists)</td>
<td>11</td>
</tr>
<tr>
<td>Government officials, PCPNDT members &amp; academicians</td>
<td>10</td>
</tr>
<tr>
<td>Civil society organisations/NGOs</td>
<td>09</td>
</tr>
<tr>
<td>Legal practitioners</td>
<td>05</td>
</tr>
<tr>
<td>Marriage bureaus</td>
<td>05</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

3.5.2a PROFILE OF THE PARTICIPANTS OF FGDS

Total five FGDS were conducted in the city of Vadodara. Since the FGD helps to bring out latent experiences and opinions, women can feel free to talk on the issues defying
the taboo attached to sex selection and SSA. The issues related to reproduction and compositions of the family are often discussed by women in their peer group. Directing such a gathering through a facilitator in an FGD set up provides a rich and reliable account on the issue. A schedule with pointers to direct the discussion was used for FGDs.

The groups are selected keeping in mind the socio-economic and cultural diversity of the population. Groups from different religious background (Hindu and Muslims), socio-economic background (upper, middle and lower class, working women and housewives) and women from elite locality with inclination towards cultural and literary activities have participated. The selection of the participants is based on the assumptions that the location of the women in society shapes her attitudes and ideologies. A local women’s organisation Sahiyar, which is working in Vadodara for more than three decades, aided the entry into the field. Their established contacts across caste, class and religion enabled to gain easy entry in to the field and build an initial rapport with the respondents and participants.

Their basic profile of the FGD participants is as follows.

a) FGD-1 (Hanuman Chowk, Kishanwadi) – The group consists of 13 women from the Kisanwadi slum area. They all belonged to the Hindu, Gujarati lower class and lower caste (SC, ST and OBC) group. Employment was more or less seasonal, temporary or casual. Their spouse’s were all manual labourers. A couple of them were female headed households. The age group was 20-40 years. They all had two or more than two children.

b) FGD-2 (Bavamanpura, Panigate) - This group consists of 12 lower class Muslim married women doing part time or seasonal casual work. Their husbands were hawkers, rickshaw drivers or doing manual labour. These women were all literate but with basic minimum education. The age group varied between 25-50 years. They all had more than two children.

c) FGD-3 (Bank of Baroda, Regional office) - The group consists of 7 women employees of the bank who are at least graduate and belong to the middle or upper middle class of the society. They meet regularly during lunch time on working days. Women belonging to different linguistic (Gujarati, Marathi and Malayalam) and caste groups (Brahmin, Vaishnav, Patel, Khatri etc) were all Hindus. Their husbands were all in to service sectors and mostly in government Jobs. Their age group was between 30-55 years. They all had 1-2 children in the family. Majority of them were from nuclear family.
d) FGD-4 (LIC of India, central office) - This group consists of 12 women working in Life Insurance Corporation of India’s (LIC) Vadodara Branch. They are all literate at least up to graduation and have a comfortable rapport with each other. They all belonged to Hindu religion and majority of them were Gujaratis. However one participant amongst them was a Maharashtrian. They all belonged to upper castes namely Vaishnavs, Patels or Brahmins. They are from middle class or higher middle class groups and their husbands are into service or business. Two of them were widows. They all had 1-2 children with at least one son.

e) FGD-5 (Zankaar literary-cultural group) - Located in the elite neighbourhood of Vadodara this group is a literary and cultural group consisting of highly literate group of women from higher middle class. They meet at least twice a month in preview of a book appraisal, music programme or other cultural events. In the present discussion 16 members participated. The age group varied between 50-80 years. Some of these women had retired from their highly professional jobs of being a professor, lawyer etc. Their husbands were either retired from government or private service sectors or had a business of their own. Two women were widows. Two of them were unmarried. All others had married sons and daughters. An average number of children in family were 2-3. They all were Hindu belonging to different caste groups namely, Nagars, Vaishnavs, Patels, Gohils etc.

3.5.3. GEOGRAPHICAL AREA AND LOCATION

The entire city of Vadodara with its urban agglomeration limits were covered in the research. The study covers the urban population residing in different parts of Vadodara including the elite areas, middle class areas and slum areas. The major areas covered include, Vaghodia road, M.S.University campus, Gotri, Chhani, Fatehganj, Alkapuri, Panigate, Bavamanpura, Kisanwadi, Maandvi, Harni, Manjalpur, Ellora Park, OP road, Productivity road, Varasia Ring road, Sangam Cross road, Sama-savli road among a few others.

3.6 ETHICAL CONSIDERATIONS

A complete confidentiality is maintained regarding the details of the participants in the research. Assurance was given to each and every participant regarding concealment of their identity and information divulged by them. Access to the data was limited to the researcher and the supervisor and was discussed with any other person. Keeping in mind the sensitivity and morality based issues involved in the study, prior consent of all the informants
was taken before interviewing them. Even participants from focus group discussions were informed about the details and the purpose of the study and prior consent was taken from them for participation and audio recording of their discussions. Medical practitioners were also informed about their participation being voluntary and only with their prior confirmation the interviews were conducted. Similar procedure was undertaken while conducting interviews with legal practitioners, government officials, academicians, civil society organisations, marriage bureaus and other respondents.

3.7 PROBLEMS AND LIMITATIONS OF THE STUDY

➢ Considering the ethical nature of the study, receiving consent for the interview was very difficult and challenging.

➢ Being an outsider for the city, gaining entry in the field and building a rapport was challenging.

➢ Despite of a large number of gynaecologists and radiologists practising in the city, very few agreed to participate in the research. Several attempts and visits were made to request for participation and in most cases they declined directly or indirectly. And hence only a limited number of medical practitioners’ opinions are included in the study.

➢ Although there are rampant incidents of SD or SSA in Vadodara, there has not been even a single lawyer who has fought a case under PCPNDT. And hence the opinions on the Act are based on expertise and not on firsthand experiences.

➢ The general attitude towards SD and SSA is that it is related to reproduction and health of women and hence, very few men agreed to be interviewed on the issue.

➢ The proposed area being in Gujarat most of the study material was available in Gujarati, so there was a double burden of translating and analysing the data. However, being fluent in Gujarati, both written and spoken, the material and respondents were accessible.
NOTES
1. Critical theory in Sociology finds its roots in Marxist theory. It was against the positivist theory. It was a theoretical explanation to reduce the domination and dependence by increasing the autonomy in society.
2. Frankfurt school of social research founded in 1923 was a critique of orthodox Marxism and the thinkers are often known as neo-Marxist. They were critical of the totalitarian form of domination developed in modern industrial societies.

REFERENCES


