CHAPTER
2
METHODOLOGY

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Methodology

An Overview

The present research adopted a qualitative design guided by constructivist grounded theory. The chapter begins with the objectives of the study. Following this, the methods are documented in detail, discussing research design, study site, population and sample, sampling plan, tools, detailed account of data collection procedure, ethical considerations, and analytical issues and its resolutions. In relation to the method chosen, the chapter concludes with data generation, data management and analytic procedures.

Intent of the Research

The intent of this research was to examine existing HIV counseling practices, HIV counseling process, behavior change processes among the clients and counselors' experiences of providing HIV counseling services to the most at-risk population (MARPs) through targeted interventions (TIs) in Gujarat State.

Purpose of the Qualitative Research

According to Maxwell (1996), "the purpose of qualitative research is neither to remove the researcher from the research nor to conduct sterile research but rather to garner an understanding of how the researcher fits into the data collection, analysis, and interpretation of the research using such awareness effectively" (p. 91). The researcher felt that the Grounded Theory approach (Charmaz, 2006; Glaser & Straus,

1967) was the best-fit approach to address research objectives and construct a theory of HIV counseling practice.

An Overview of Grounded Theory Methodology

Grounded Theory is a systematic research approach emphasizing the generation of middle range theory from data at a substantive or formal level (Glaser, 1978). Grounded theory was developed by two sociologists, Barney Glaser and Anselm Strauss in 1967 and published a first book, The Discovery of Grounded Theory. The emphasis of grounded theory is "to generate theory, not to validate or retrofit existing theories" (Glaser & Strauss 1967, p19). In the uneasy tension between positivist quantitative research and qualitative research, the discovery of grounded theory signaled a new departure with its roots firmly in the behavioral sciences. Grounded theory is an appropriate methodology to model a process involving human interactions (Creswell, 1994, 1998). Grounded theory method tries to integrate the strengths inherent in the quantitative method with the qualitative method (Walker & Myrick, 2006). It shares the following characteristics with other qualitative methods, which correspond to those of this study (Marshall & Rossman, 1999):

• Focus on everyday life experiences

• Valuing participants' perspectives

• Enquiry as interactive process between researcher and respondents

• Primarily descriptive and relying on people's words

Although this study did not begin with researcher's preoccupation with a predetermined, specific research question (a discussion of this feature is presented in the genesis of the study), it was predicated upon a clearly articulated, yet broad in scope, content area: counselors' experiences of HIV counseling practices, and their

perspectives of counseling. Many different research methods could have been chosen to investigate this realm of experience, spanning both the quantitative and qualitative domains. However, since the researcher was interested in counselors' subjective experiences, and desired to create a product that is rich with their voices, the grounded theory was thought to be appropriate. Grounded theory facilitates the move from a description of what is happening to an understanding of the process by which it is happening (Corbin & Strauss, 1990, 1994, 2008). Although, the grounded theory approach does not prevent biases and assumptions of the researcher from coloring or shaping the final product, the systematic design of the methodology does create more opportunity for the researcher to monitor, to become aware of, and to reveal to the audience such influences. Further, the grounded theory method permits the discovery of new information with an express purpose of developing a theoretical formulation, which is used to explain findings and to provide a framework for future exploration (Strauss & Corbin, 1998).

Selecting an Appropriate Grounded Theory Methodology

Grounded theory has undergone considerable development during the past four decades. The first one (1960-1970) was called the discovery decade, the second one (1970-1980) was called the development decade, the third one (1980-1990) was called the diffusion decade, and the fourth one (1990-1996) is called the diversification decade (Benoliel, 1996). There are various versions of Grounded Theory research such as (1) Glassarian grounded theory or classic grounded theory, (2) Straussian grounded theory, and (3) Constructivist grounded theory. The "heart" of their difference centers around beliefs and approaches to analysis.

Glassarian grounded theory. Glassarian grounded theory or classical grounded theory is a systematic methodology in the social sciences involving the discovery of theory through the analysis of data. Charmaz (2006) defined Glassarian grounded theory as, "a method of discovery, treating categories as emergent from the data separate from the scientific observer" (p. 8). Glaser and Strauss (1967) stated that the adequacy of the generated theory, derived from data, cannot be separated from the process undertaken to create it. Glaser is viewed as remaining more faithful to the original version of grounded theory in his approach to data analysis, Glaser continues to write about and teach the original grounded theory method. Glaser (1992) described the grounded theory approach as:

"a general methodology of analysis linked with data collection that uses a systematically applied set of methods to generate an inductive theory about a substantive area. The research product constitutes a theoretical formulation or integrated set of conceptual hypotheses about the substantive area under study . . . testing or verificational work on or with the theory is left to others interested in these types of research endeavors" (p. 16).

Glaser (1965) considered grounded theory as not a quantitative research method and claims the dictum "all is data." This means that along with interview and observational data, surveys or statistical analyses or "whatever comes the researcher's way while studying a substantive area" are the data (p.447). Grounded theory can be judged by fit, relevance, workability, and modifiability (Glaser & Strauss 1967, Glaser 1978, Glaser 1998). They can be summarized as follows:

1. Fit –the theory fits with the incidents they are representing,

2. Relevance – a study deals with the real concern of participants, evokes "grab" (captures the attention) and is not only of academic interest.

3. Workability–the theory works to a wide range of situations in the substantive area and explains how the problem is being solved.

4. Modifiability – a theory can be altered when new relevant data is compared to existing data.

Glaser (1978) highlights the importance of the core category for grounded theory:

"the generation of theory occurs around a core category. Without a core category, an effort of grounded theory will drift in relevancy and workability" (p 93).

Core categories are groupings of similar concepts. Core categories are developed through two types of coding mechanism, namely, substantive coding and theoretical coding. Some authors refer to the substantive coding as characterized by sub phases of open and selective (Hernandez & Andrews, 2012; Walker & Myrick, 2006). Holton (2007) summarizes the substantive coding process as follows:

"In substantive coding, the researcher works with the data directly, fracturing and analyzing it, initially through *open coding* for the emergence of a core category and related concepts and then subsequently through theoretical sampling and selective coding of data to theoretically saturate the core and related concepts" (p. 265).

Substantive codes break down (fracture the data) while theoretical codes "weave the fractured story back together again [into] an organized whole theory" (Glaser, 1978, p. 165). Theoretical coding occurs as the final stage "to conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into the theory" (Holton, 2007, p. 255).

Another key method of data analysis proposed was "constant comparative process." It involves three types of comparisons: (1) incident to incident for the emergence of concepts, (2) concepts to more incidents for further theoretical elaboration, saturation, and densification of concepts, and (3) concepts to concepts for their emergent theoretical integration and through theoretical coding (Glaser & Strauss, 1967; Holton, 2007). Theoretical saturation is achieved by the constant comparison of incidents in the data to elicit the elements and dimensions of each category or code. The memoing is considered important research process, which helps the researcher to determine the theoretical codes that provides the best relational model to integrate substantive codes to theoretical codes (Charmaz, 2006). The use of field notes is key elements of the grounded theory. Field notes "form the basis for the construction of memos, memos play a key role in the development of the theory" (Montgomery & Bailey, 2007, p.76).

Glaser (1992) placed emphasis on induction and theory emergence. Glaser (1978) points out that grounded theory allows the data to be developed without preconceived ideas and will integrate previous work during the comparative analysis. He criticizes the Straussian grounded theory as a form of qualitative data analysis.

Straussian grounded theory. Glaser and Strauss have disagreed on how to apply the grounded theory method, resulting in a split between Straussian and Glassarian paradigms. Strauss (with Corbin) has reformulated the original version (Walker & Myrick, 2006; Glaser, 1992). Strauss and Corbin (1990) have developed a more linear approach to the research methodology. The Straussian grounded theory comprises the same "steps" as proposed in classic grounded theory. The major difference is in the treatment to the data. The Strauss expanded the data analysis process and stressed on three methods, induction, moving from the data to empirical generalization to theory; deduction, emerging questions and patterns and allowing a movement from generalization to theory; and verification, comparing patterns/categories to validate its existence from the data, to create a theory (Strauss, 1987). The Straussian approach uses a three stage coding methodology of open coding, axial coding, and selective coding. Open coding is conceptualizing on the first level of abstraction. Written data are conceptualized line by line. Axial coding is defined a set of procedures whereby data are put back together in new ways after open coding, by making connections between categories. Selective coding refers to the formalizing of these relationships into theoretical frameworks. The Straussian approach uses the literature in the early stages of research to develop theoretical sensitivity and the generation of hypotheses (Strauss & Corbin, 1990). They have put forward eleven basic procedures to follow in the development of their method as follows:

1. Data collection and analysis are interrelated processes.
2. Concepts are the basic units of analysis.
3. Categories must be developed and related.
4. Sampling in grounded theory proceeds on theoretical grounds.

5. Analysis makes use of constant comparisons.

6. Patterns and variations must be accounted for.

7. Process must be built into theory.

8. Writing theoretical memos is an integral part of doing grounded theory.

9. Hypotheses about relationships among categories are developed and verified as much as possible during the research process.

10. A grounded theorist need not work alone.

11. Broader structural conditions must be brought into the analysis, however microscopic in focus is the research (pp. 419–422).

The Straussian approach is more structured, leading to a much more rigid coding structure for analysis. Rennie (1998) sees Straussian grounded theory as introducing hypothetico-deductivism to grounded theory based on instrumentalism, whereas Glassarian grounded theory insists on an inductive approach and that the method should only lead to theory and not to verification.

Charmaz's constructivist grounded theory. The constructivist grounded theory is rooted in pragmatism and relativist epistemology. It assumes that neither data nor theories are discovered, but are constructed by the researcher as a result of his or her interactions with the field and its participants (Bryant, 2002; Charmaz, 2000, 2006, 2008, 2009; Mills, Bonner & Francis, 2006a, 2006b; Thornberg & Charmaz, 2012). Constructivist grounded theory was proffered by Charmaz (2000, 2003, 2006) as an alternative to classic (Glaser 1978, 1992, 1998, 2001, 2003, 2005, 2011) and Straussian grounded theory (Strauss & Corbin 1990, 1998). At the root of the constructivist grounded theory is the belief that concepts are constructed, not discovered as put forward by Glaser (2002). It attempts to interpret how participants

construct their realities and present multiple perspectives to conceptualize a latent pattern of the realities. Similar to the Straussian grounded theory, constructivist grounded theory begins with a review of the literature to determine what has been done before in the area of interest.

Neither Glaser nor Strauss has successfully reconciled the tension between relativism and realism with both the subject matter and the procedures of the grounded theory method (Rennie, 1998). Rennie (2000) subsequently deconstructed the grounded theory methodology to reconcile the inherent tension between relativism and realism, and to produce a new logic of justification for the grounded theory method. Rennie challenged the Glaser and Strauss's (1967) claim that the inductive processes alone can establish the validity of the categories (and hence, the theory) and demonstrated that the inherent validity of the categories involves the interactive inferential processes of induction (gathering of facts) and abduction (imaginative creation of a hypothesis). Taking together the objectivity-enhancing nature of reflexivity with the self-correcting and validity-enhancing nature of the intertwined processes of induction and abduction, Charmaz's constructivist grounded theory is able to make 'knowledge claims,' consistent with a Glassarian grounded theory.

The coding process for constructivist grounded theory uses four types of coding: open, focused, axial, and theoretical. For the constructivist approach, open coding is line by line coding to identify and categorize concepts that emerge from the data; focused coding is coding the pattern, idea that emerge from the data; axial coding is linking focused codes, and theoretical coding is the merging of concepts into groups. Charmaz (2006) gives the following criteria that grounded theory studies

should aim for and highlights that credibility and originality enhances the other two criteria resonance and usefulness.

1. Credibility – is established by sufficient data, developing strong links between gathered data, wide range of empirical observations and evidence to the researcher's claims

2. Originality- is established when categories offer new insights, provides social and theoretical significance of the work, challenge, extend, refine current ideas, concepts and practices

3. Resonance- is established when categories portray fullness of the studied experience, results make sense to the participants' voice, and analysis offer them deeper insights about their lives.

4. Usefulness- is established by generating hypotheses for future research, contribute to the knowledge, offering interpretations that people can use in their everyday lives

Bryant (2009) took a pragmatic approach seeing that the disputed differences between Glassarian grounded theory, Straussian grounded theory, and Constructivist theory was likely to continue. He felt that the many issues could be put aside if the researchers remembered the core objective of research: "The epistemological issues that separate different strands, or branches of the grounded theory family, can then be set to one side provided that people's research writings do not seek to make strong epistemological claims: the ultimate criterion of good research should be that it makes a difference" (p. 32). Based on Bryant's (2009) pragmatic approach, three key issues, namely, (1) General user friendliness for data analysis; (2) potential to generate

theory; and (3) compatibility with contemporary thinking, were considered while determining an appropriate research design for this research.

Research Design

The formative stage of this research provided the researcher with significant challenges and frustrations. Although the researcher found the writings of Glaser and Strauss intriguing, compelling, and even inspiring, a problem with respect to the logic of justification of the grounded theory methodology became apparent upon closer inspection. Some of the language used by Glaser and Strauss implied a leaning toward realist or positivist philosophical underpinnings. For example, they suggested that the role of the investigator is to "discover" a theory that will "emerge" from the data. At the same time, Glaser and Strauss implied a relativist position by acknowledging that different analysts who are working with the same data set may produce different theories. The researcher could not find in the writings of Glaser and Strauss (1967) any reconciliation of the seemingly incompatible philosophical positions of realism and relativism (Madill, Jordan, & Shirley, 2000). This left the researcher feeling not only confused, but uncomfortable, because the researcher believes that it is necessary to be clear about the philosophical underpinnings of the chosen methodology. Therefore, the researcher reviewed a number grounded theory based researches leaning on the work of Charmaz who has applied constructivist approach to grounded theory since the mid-1990s. Various researches from different disciplines have used the constructivist grounded theory. These disciplines included education (Jones, 2002; Jones & Hill, 2003 as cited in Charmaz, 2006), psychology (Corbet-Owen & Kruger, 2001; Madill, Jordan, & Shirley, 2000), occupational and environmental medicine (Gustafsson, Dellve, Edlund, & Hagberg, 2003 as cited in Charmaz, 2006), and

nursing (Annells, 1997; McCann & Clark, 2003; Norton, 1999). The wide applicability of the constructivist grounded theory is thus evident.

In this study, as is consistent with constructivist grounded theory, it was assumed that reality was co-created by the participant and the researcher; that the researcher was a part of the world the researcher studied and the data researcher has collected. Constructivist grounded theories are constructed through the researcher's 'past and present involvements and interactions with people, perspectives, and research practices' (Charmaz 2006, p10) and 'what the researcher brings to the data influences what they see within it' (Charmaz 2006, p15). Constructivist grounded theory retains the rigor of the traditional grounded theory method, and at the same time, it fosters openness and reflexivity and encourages empathetic understanding of the participants meanings, action and worlds. Considering these, the researcher has adapted research process based on constructivist grounded theory approach.

Adapted Constructivist Grounded Theory Research Process

Adhering to Charmaz's constructivist grounded theory, the researcher developed the following process. The researcher began the research with preliminary work, design research, conducted pilot study, initiated data collection and data analysis, and synthesized data analysis, and finally writing up the research and its dissemination (Figure 15).

Preliminary work. Preliminary work included review of literature and reflexive analysis. Many scholars, for example, Dey (1999), Layder (1998) and Charmaz, (2006) rejected Glaser's stance to delay literature review.
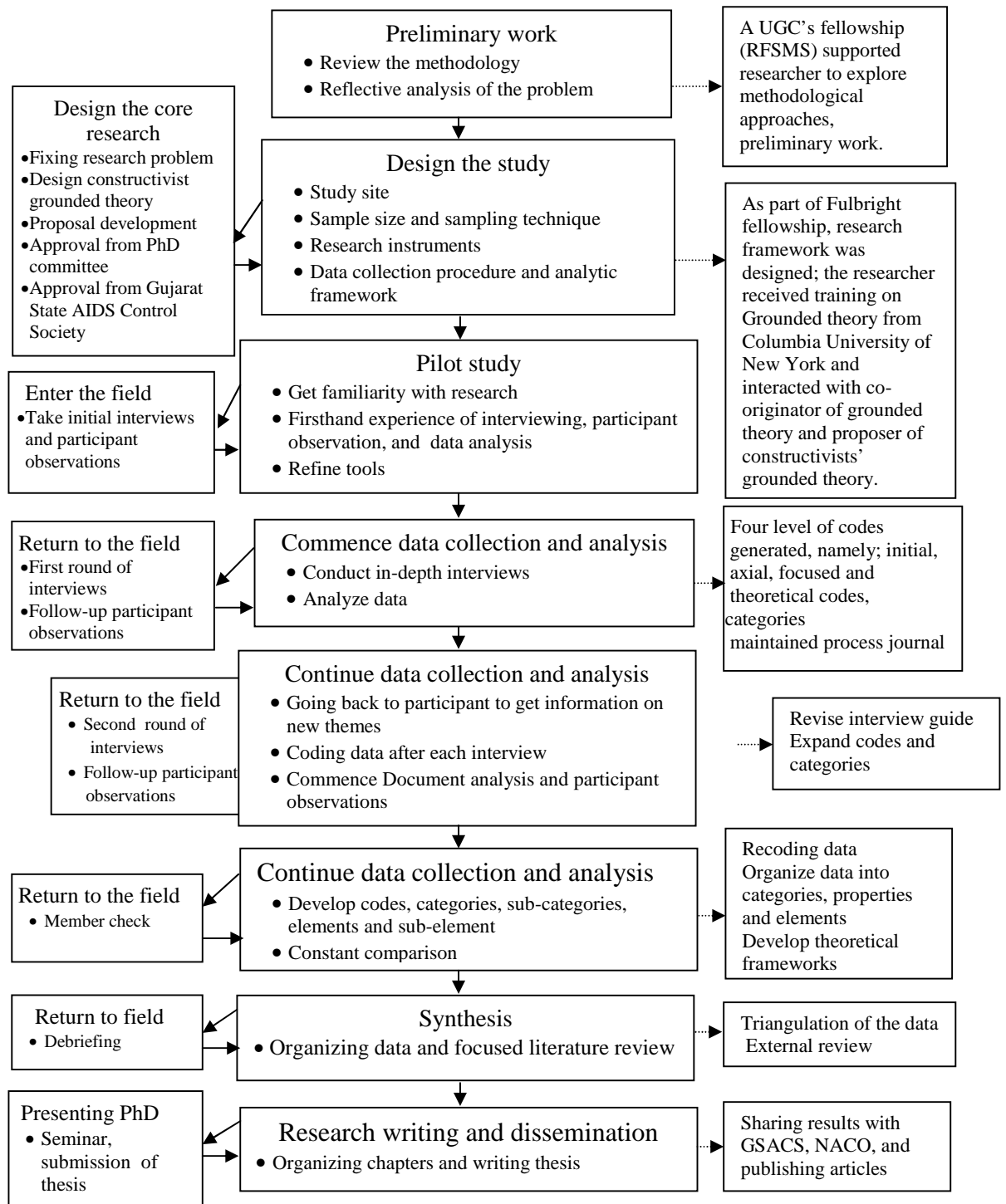
Preliminary work
- Review the methodology
- Reflective analysis of the problem

A UGC's fellowship (RFSMS) supported researcher to explore methodological approaches, preliminary work.

Design the core research
- Fixing research problem
- Design constructivist grounded theory
- Proposal development
- Approval from PhD committee
- Approval from Gujarat State AIDS Control Society

Design the study
- Study site
- Sample size and sampling technique
- Research instruments
- Data collection procedure and analytic framework

As part of Fulbright fellowship, research framework was designed; the researcher received training on Grounded theory from Columbia University of New York and interacted with co-originator of grounded theory and proposer of constructivists' grounded theory.

Enter the field
- Take initial interviews and participant observations

Pilot study
- Get familiarity with research
- Firsthand experience of interviewing, participant observation, and data analysis
- Refine tools

Return to the field
- First round of interviews
- Follow-up participant observations

Commence data collection and analysis
- Conduct in-depth interviews
- Analyze data

Four level of codes generated, namely; initial, axial, focused and theoretical codes, categories maintained process journal

Return to the field
- Second round of interviews
- Follow-up participant observations

Continue data collection and analysis
- Going back to participant to get information on new themes
- Coding data after each interview
- Commence Document analysis and participant observations

Revise interview guide Expand codes and categories

Return to the field
- Member check

Continue data collection and analysis
- Develop codes, categories, sub-categories, elements and sub-element
- Constant comparison

Recoding data Organize data into categories, properties and elements Develop theoretical frameworks

Return to field
- Debriefing

Synthesis
- Organizing data and focused literature review

Triangulation of the data External review

Presenting PhD
- Seminar, submission of thesis

Research writing and dissemination
- Organizing chapters and writing thesis

Sharing results with GSACS, NACO, and publishing articles

Figure 15. Adapted form of constructivist grounded theory process.

Rennie (2000) argued that the researcher should take a critical stance toward earlier theories. Their stance is congruent with Glaser's (1978) position of requiring prior knowledge while formulating theoretical codes in order to be sensitive to rendering explicitly the subtleties of the relationships within the data. However, the researcher did not carry out a thorough literature review in the beginning. Preliminary literature review focused on understanding the research topic, grounded theory methodology, and various counseling and behavior change theories in the HIV prevention context. The primary objective was to undertake reflexive analysis, position the research within the research context and fulfill the requirement of the doctoral research proposal. The researcher thus delayed a critical review of theories. Relevant literature on theoretical categories and concepts emerged from the research after completing research analysis.

Designing the research. Based on the preliminary work, the research design was determined and the research proposal developed using the constructivist grounded theory as the research design. The research design comprised the study site, sample and sample size, sampling technique, types of research data and methods of data collection, research instruments and its domains, and data collection procedure, which are described below.

Study site. In the present study, equal geographical representation of participants was ensured. At least one counselor of each TI typology was recruited from six regions of Gujarat state namely, Vadodara, Surat, Bhavnagar, Rajkot, Gandhinagar, and Ahmedabad. All participants were working with TIs being implemented by non-governmental organizations (NGOs) and community based organizations (CBOs), and financially supported by GSACS, Department of Health and Family Welfare, Government of Gujarat.

Sample and sample size. The sample included counselors working with targeted interventions in the Gujarat State. It was divided into two groups, I and II. The Table 2 summarizes the constitution of participants of group I.

Table 2

Summary of Constitution of Participants of Group-I

Category	No of participants	Typology	Region
ANM	2	FSW/IDU	Central/south
Community Counselor	2	MSM/FSW	Central/south
Counselor (graduate)	1	CC	Central
Counselor (other post graduate)	1	CC	South
Counselors (other post graduate)	5	1 FSW/1 MSM/ 3 CC	North (2)/west (3)
Counselors (post graduates in psychology)	3	2MSM/1 FSW	North(2)/west(1)
Total	**14**		

Group I included counselors working with various typology of targeted interventions (MSM TI, IDU TI, FSW TI and core composite –MSM and FSW TI) from four regions of the State, central, west, south and north regions. Upon receiving permission from the respective organization (which was implementing TI), the counselors were contacted and their consent for the participation in the study was sought. Those participants who agreed to participate in the study were selected. Each participant was interviewed 2 to 3 times based on the need. After in-depth interviews with14 participants, all themes were saturated and hence recruitment new participant was stopped.

Group II included counselors conducting counseling sessions with their clients. Table 3 describes the constitution of the participants of the group II.

Table 3

Summary of Constitution of Participants of Group II

Category	Typology	No of participants	Regions
Community Counselors	MSM/FSW	2	Central/South
ANM	IDU	1	South
Counselor (psychology)	CC	1	North
Counselors (social work degree)	FSW	1	West
Total		**5**	

Five counselors (from previously interviewed participants) who represented each typology of TI and geographical regions were purposively selected. Participant observations of counseling sessions were carried out (with counselor's and client's consent) until theoretical themes were saturated. Observation themes were saturated by total 4 to 5 counseling sessions with the same client of each counselor. In total, 23 counseling sessions were observed. After observation of each counseling session, the researcher talked briefly with clients about their counseling experiences, their expectations from counseling process and whether their expectations were fulfilled or not.

Sampling technique. The research employed the purposeful sampling strategy with maximum variation. According to Patton (2002), this strategy aimed to "capture and describe the central themes that cut across a great deal of variation" (p. 235). Maximum variation identified common patterns that emerged from great variation that were of particular interest in gathering the core experiences of the participants within their context (Patton, 2002). To achieve maximum variation, participants for in-depth interviews were selected based on following criteria: (a) work experience (one year, two years and more than two years); (b) education (professionally un-qualified, graduate and/or post graduate in psychology/social work, graduate and/or post graduate in another

discipline); (c) geographical locations (six regions of the State), (d) type of counselor (community counselor, auxiliary midwifery –ANM and professional counselor), and (e) typology of targeted interventions (targeted intervention with men who have sex with men–MSM, female sex workers' –FSW, core composite, MSM and FSW,–CC TI, and injecting drug users –IDUs).

For participant observations, five counselors, who were from all four geographical locations, five typologies of the TI, confident, pragmatic in their approach toward counseling, shared culture specific counseling strategies and willing to participate in participant observations, were purposively selected for participant observations of the counseling sessions.

Merriam (1998) suggests qualitative research is better served by non-probability sampling also known as purposive sampling. According to Lincoln and Guba (1985), within criterion or purposive sampling, the size of the sample cannot be predetermined: "The criterion invoked to determine when to stop sampling is informational redundancy or saturation, not a statistical confidence level" (p. 203). The research sampling was thus continued until theoretical saturation of each research category was achieved (Strauss & Corbin, 1990). Theoretical saturation occurs when new or relevant data no longer seem to be emerging from the particular category or theme, when the categories or themes have well developed, and the relationship between categories or themes has been clearly established (Strauss & Corbin, 1990, p. 188). Additionally, researchers (e.g., Denzin, 1978; Maxwell, 1996; Merriam, 1998; Guba & Lincoln, 1989; Patton, 1990; Seidman, 1998) recommend that if no

saturation or redundancy is found, the researcher should draw assumptions and conclusions from the data collected.

Types of the research data, methods of data collections and its objectives.
Merriam (1998) states that the data collection in qualitative research involves three strategies: Interviewing, observing, and analyzing documents. For this research, data were gathered through in-depth interviews, review of documents (such as a daily diary, case studies, case histories, various registers, and forms maintained by counselors) and participant observations of counseling sessions. Present research has gather three types of data, text, narrative and visual using multiple methods such as interview, documents review and observations. The Figure 16 illustrates the types of the research data and research methods.
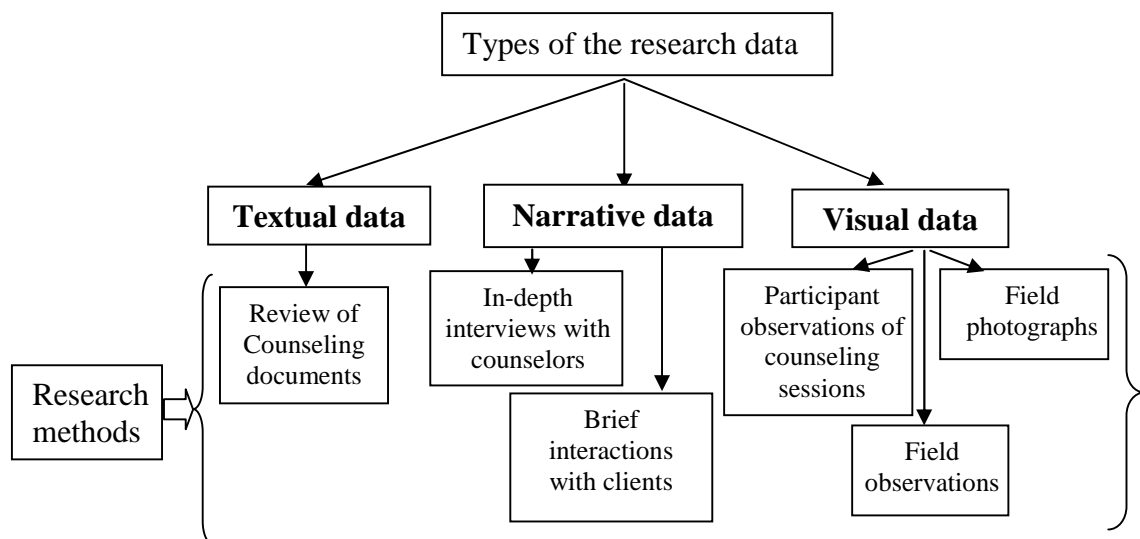
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                        ┌──────────────────────────┐
                        │ Types of the research data│
                        └──────────────────────────┘

      ┌──────────────┐    ┌──────────────┐    ┌──────────────┐
      │ Textual data │    │ Narrative data│   │  Visual data │
      └──────────────┘    └──────────────┘    └──────────────┘

                      ┌────────────┐  ┌──────────────┐  ┌──────────────┐  ┌────────────┐
                      │ Review of  │  │ In-depth     │  │ Participant  │  │ Field      │
                      │ Counseling │  │ interviews   │  │ observations │  │ photographs│
   ┌──────────┐       │ documents  │  │ with         │  │ of counseling│  └────────────┘
   │ Research │       └────────────┘  │ counselors   │  │ sessions     │
   │ methods  │                       └──────────────┘  └──────────────┘
   └──────────┘                       ┌──────────────┐  ┌──────────────┐
                                      │ Brief        │  │ Field        │
                                      │ interactions │  │ observations │
                                      │ with clients │  └──────────────┘
                                      └──────────────┘
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Figure 16. Source of the research data and research methods

The Table 4 explains multiple methods used for gathering different sources of the data and objectives of using research methods for the present research.

Table 4

Types of Data, Multiple Methods and Objectives of Each Research Methods

Types of data	Multiple research methods	Objective of Each research methods
Textual data	Review of counseling documents	Ascertain and validate counseling practice (research objective 1) and counseling process (research objective 2) through examining counseling documents
Narrative data	In-depth interview	Gather information about counseling practices (research objective 1), counseling process (research objective 2) and factors that influences counselors' experiences (research objective 2)
	Brief informal interaction with clients	Understand clients' expectations, their feedback on counseling process (research objective 2)
Visual data	Participant observations of counseling sessions	Capture counselor-client interactions to understand counseling practice (research objective 1), counseling process (research objective 2) and observe indicators of behavior change in clients (research objective 3).
	Field observations	Capture field situations, team interactions to gain insight about factors influence counseling practice, counseling process (research objective 2), and counselors' experiences (research objective 4)
	Filed photographs	Capture visually appealing field reality to understand counseling context, factors influence counseling practice (research objective 1) and counselors' experiences (research objective 4).

Research instruments and domains. The Table 5 describes details of all

research instruments developed.

Table 5

Themes Covered by Each Research Instrument

Research instruments	Domains
In-depth interview protocol **(Appendix A)**	It covered four major themes (a) socio-demographic information which included age, gender, education, experience, and training;(b) counseling practices which included counselors' routine, their understanding of the meaning of counseling, counseling skills and techniques that are working well and not working well, and everyday counseling challenges; (c) experiences of providing HIV counseling in TI, which included factors that influence their experiences, and suggestions to improve counseling; and (d) counseling process which included steps or phases followed during the counseling sessions and some case studies for counselors.
Document review protocol **(Appendix B)**	Counseling documents review included reviewing (a) types of counseling documents, (b) process of recording documents, (c) content of counseling documents, and (d) usage of counseling documents.
Participant observation protocol **(Appendix C)**	It included four key themes as follow: (a) counseling context, (b) counseling setting, (c) counseling process (initiation of conversation, skills and techniques used, counselors' and clients' verbal and non-verbal communication, points covered during the sessions, and termination of the session), (d) counselors' and client's responses to the counseling process and (e) indicators of behavior change in clients.
Field observation protocol **(Appendix D)**	It included seven key areas such as (a) observation of functioning of the project, (b) involvement of trustees in the project particularly in the counseling component, (c) office set up, (d) counseling set up, (e) interactions among TI staff, (f) counselors' interactions with clients, and (g) counselors' routine activities.
Consent forms (for in-depth interview, participant observations (counselor and client's consent) **(Appendix E, F and G)**	It included,(a) background of the study, (b) process of the study, (c) possible risks, side Effects, and discomforts, (d) possible benefits, (e) confidentiality, (f) participation and withdrawal, (g) publication of findings, (h) data analysis, (i) dissemination of findings, (j) participant's consent and (k) participant's signature.

In-depth Interview protocol (Appendix A), document review protocol (Appendix B), participant observation protocol (Appendix C), field observation protocol (Appendix D) and consent forms for in-depth interview participants, and for counselors and clients for participant observation of counseling (Appendix E, F and G) were developed to guide data collection.

Interview guide and consent forms were prepared in Gujarati, translated into English and back-translated into Gujarati in order to have comparable meaning and avoid multiple interpretations. Since the researcher's as well as participants' native language was Gujarati, the interviews were conducted in Gujarati while observations and field notes were also recorded in both English and Gujarati. The interview and observation protocols were pilot tested with the members of the same potential sample population (Maxwell, 1996). Comments and suggested modifications from the pilot study were incorporated into the protocol.

Transcription of audio taped in-depth interview, notes on participant observation of counseling sessions, field notes during the research study, and review of counseling documents (such as counseling records, case studies, referral records and other registers maintained by counselors) were used to enhance the validity of data interpretation (Creswell, 1998; Maxwell, 1996).

Data collection procedure. The data collection involved an iterative process. Each interview and participant observation of counseling session was analyzed before conducting another. As a result, the researcher was able to introduce new elements into subsequent data collection phase, which were 'grounded' in the information

collected before. Data were analyzed based on analytic framework and processes based on constructivist grounded theory approach.

Access to the sample population occurred with permission from the Gujarat State AIDS Control Society (GSACS) and non-governmental or community based organizations that implement TIs. In most cases, the researcher contacted counselors by telephone to schedule a meeting to discuss the research project. Seidman (1998) states, "Telephoning is often a necessary first step in making contact, but if possible it should consist of only a brief introduction, an explanation of how the interviewer gained access to the person's name, and a decision on when to meet" (p. 40). Potential counselors who agreed to volunteer for the research were recruited. Participants were provided the opportunity to accept or decline participation in the study. Before an interview, study objectives, and details of the study were discussed to avoid confusion and any surprises during the interview, such as signing a consent form. The purpose of this sequence was to gain a 'snapshot' of the counselors' experiences of HIV counseling prior to their participation in the research interview process. The purpose of this sequence was to gain a 'snapshot' of the counselors' experiences of HIV counseling prior to their participation in the research interview process. As a means of further protecting research participants' confidentiality, informed consent (Appendix E, F and G) was employed.

During the entire data collection process, field observations were made and recorded. Grounded theory advocates beginning the interview protocol with an open and non-directive approach. However, one of the potential challenge and inefficiency of the complete unstructured interview approach is that the data acquired may not

relate to the research question (Seidman, 1991). Considering that challenge, the research felt that, by indicating likely areas of focus in advance to the interviewee, the interview session could be used more efficiently. Therefore, focus areas for interviews were determined first and interview protocol was developed based on the objective of the research. The interview protocol used as the data acquisition process proceeded in order to saturate emerging themes. In-depth interviews were carried out using an open and non-directive technique, with opportunity for reflection and probing.

Documentary analysis of counseling documents, such as the counseling registers; record keeping mechanism in TI, counseling checklist, standard operating procedures (SoPs) and guidelines provided valuable insight into factors which influence HIV counseling practices and HIV counseling process. After primary analysis of interview data and review of documents, five counselors representing FSW, MSM and IDU typology, geographical regions and qualifications, were selected for participant observations of counseling sessions, including at least four follow-up counseling sessions. The researcher made observation notes of participant observation, recorded clients' responses and indicators of behavior change. In total, the researcher has conducted two rounds of interviews, observed 23 counseling sessions of five counselors. The researcher often returned to the field to gather informations from participants' observations.

Analytic framework. The researcher was involved in multiple simultaneous tasks throughout the research process including information collection, determination of categories or themes, and writing the narrative text (Creswell, 1994, p. 153). Data analysis was conducted throughout the process of data collection and report writing.

Coding of the data. To formulate a theory, the researcher used a systematic coding approach. The process of coding and developing a theory is depicted in the Figure 17 below.
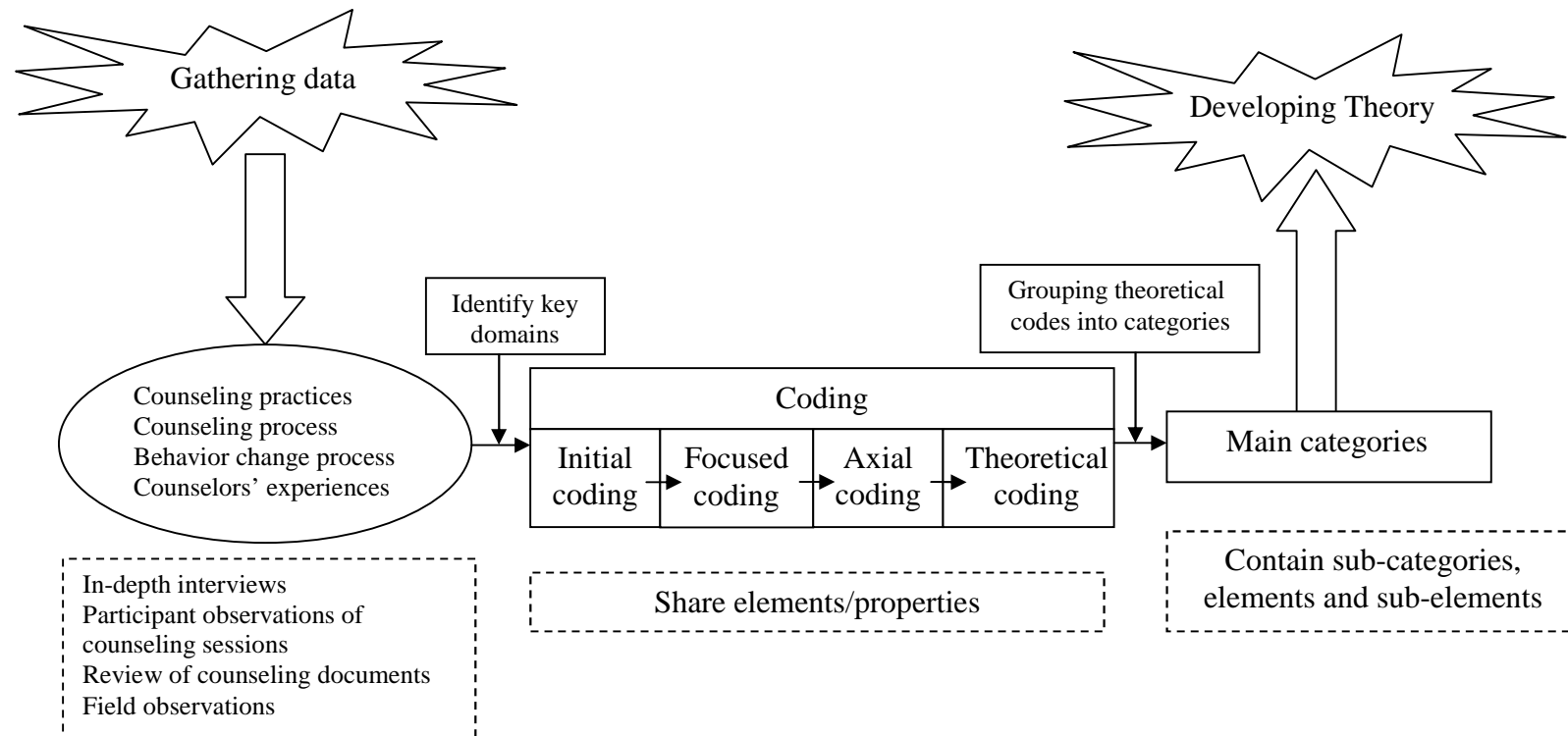
Gathering data

Developing Theory

Identify key
domains

Grouping theoretical
codes into categories

Counseling practices
Counseling process
Behavior change process
Counselors' experiences

Coding

| Initial coding | Focused coding | Axial coding | Theoretical coding |

Main categories

In-depth interviews
Participant observations of
counseling sessions
Review of counseling documents
Field observations

Share elements/properties

Contain sub-categories,
elements and sub-elements

Figure 17. Coding process adapted in the research.

Data (text, visual and audio data) were transcribed, and translated as and when these were collected. The data was read and re-read to understand and mark important themes. Data was reviewed in order to: (1) modify the interview guide to explore emerging themes; (2) reflect on interviewing techniques; and (3) validate the quality and accuracy of translation (Creswell, 1998; Patton, 2002).

Consistent with the inductive manner of grounded theory, the researcher began analysis early on in the data collection process by carefully identifying concepts, themes, and relationships in the data (Charmaz, 2003). The researcher identified key domains from the data based on research objectives and coded the data using Charmaz's coding system. Charmaz (2006) described four levels of coding, namely, initial coding (p.48), focused coding (p.57), axial coding (p.60), and theoretical coding (p.63). Initial coding is the process of breaking down, and categorizing data to see the action in each segment of the data rather than applying pre-existing categories to the data (p. 48). It is an attempt to code a word or line that reflects action. Initial codes are provisional, comparative and grounded in the data. The researcher remained open to other analytic possibilities by gathering data that lacked information and created codes that fit the data. Figure 18 and 19 illustrates the process of developing initial codes:
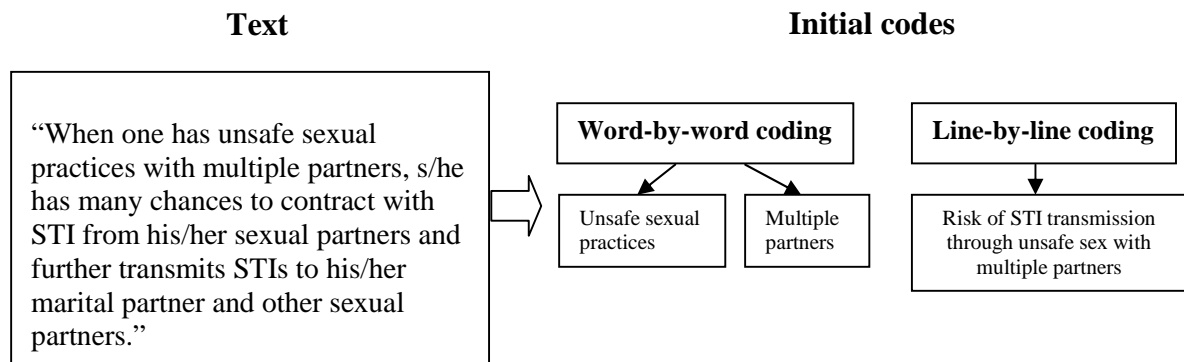
Text   **Initial codes**

"When one has unsafe sexual practices with multiple partners, s/he has many chances to contract with STI from his/her sexual partners and further transmits STIs to his/her marital partner and other sexual partners."	**Word-by-word coding** → Unsafe sexual practices / Multiple partners **Line-by-line coding** → Risk of STI transmission through unsafe sex with multiple partners

Figure 18. An example of initial coding: word-by-word and line-by-line coding.

Text   **Initial codes**

Incident-by-incident coding
- Relationship with sex worker
- Feeling anxious and tensed
- Incident of condom leakage

"I had a relationship with a sex worker. During sex condom was slipped/leaked. She might have STIs…and could be transmitted to me. What if I contracted with HIV? I am still unmarried and my whole life will be spoiled. I feel anxious and tensed…I will everything possible to keep myself away from STIs and HIV. I want to marry and have healthy life."

In-vivo coding
(assigning a label to a section of data)
→ Feeling anxious and tensed about HIV transmission and future life

Figure 19. An example of initial coding: incident-by-incident and in-vivo coding.

After establishing analytic direction through initial coding, focused coding was done "to synthesize and explain larger segments to data by comparing data with the most significant and/or frequent initial codes" (Charmaz, 2006, p.57). Focused codes are more directed, selective and conceptual than word-by-word, line-by-line and incident-

by-incident coding (Glaser, 1978). The Figure 20 explains the process followed for developing focused coding.
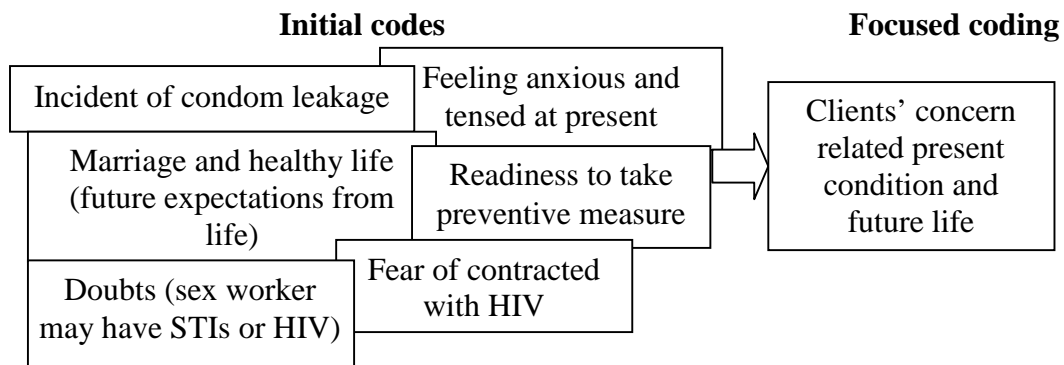
Initial codes   **Focused coding**

Incident of condom leakage	Feeling anxious and tensed at present
Marriage and healthy life (future expectations from life)	Readiness to take preventive measure
Doubts (sex worker may have STIs or HIV)	Fear of contracted with HIV

Clients' concern related present condition and future life

Figure 20. An example of focused coding.

Focused codes were developed by comparing and integrating various initial codes. While developing focused codes, the researcher moved across interview and observation texts, compared participants' experiences, actions and interpretations.

Axial coding is "the process of putting the data back together in new ways after comparisons and categorizations are made" (Strauss 1987 p. 97). It is used to relate various similar focused codes with each other. Figure 21 provides an example of axial coding.

Focused codes   **Axial code**

Information about HIV and sexual practices	Relate HIV risks with one's past risky practices
Clarify misconceptions	
Clients' concern related present condition and future life	

Personalization
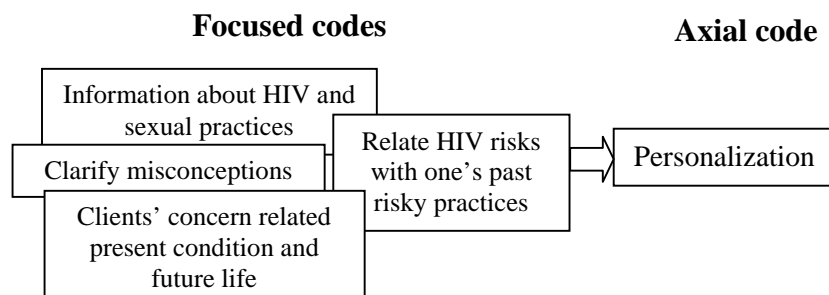
Figure 21. An example of axial coding.

Theoretical code is a sophisticated level of coding that follows the focused and axial codes (Charmaz, 2006). Theoretical codes were developed by relating the concepts that emerged from constant comparisons of axial codes axial codes. Following Figure 22 illustrates the process of developing theoretical codes.
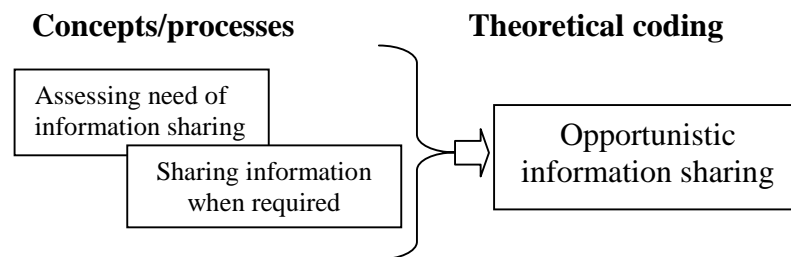
Figure 22. An example of theoretical coding.

Concepts found to be both salient and repeated in the text were defined and coded. Bogdan and Biklen (1992) states that a theoretical codes usually (1) recurs frequently, (2) links various data, (3) has an explanatory function,(4) has an implication for formal theory, and (5) becomes more detailed.

Developing categories. Theoretical codes were organized into categories and synthesized to explain the phenomena. The Figure 23 illustrates development of categories.

Behavior change process
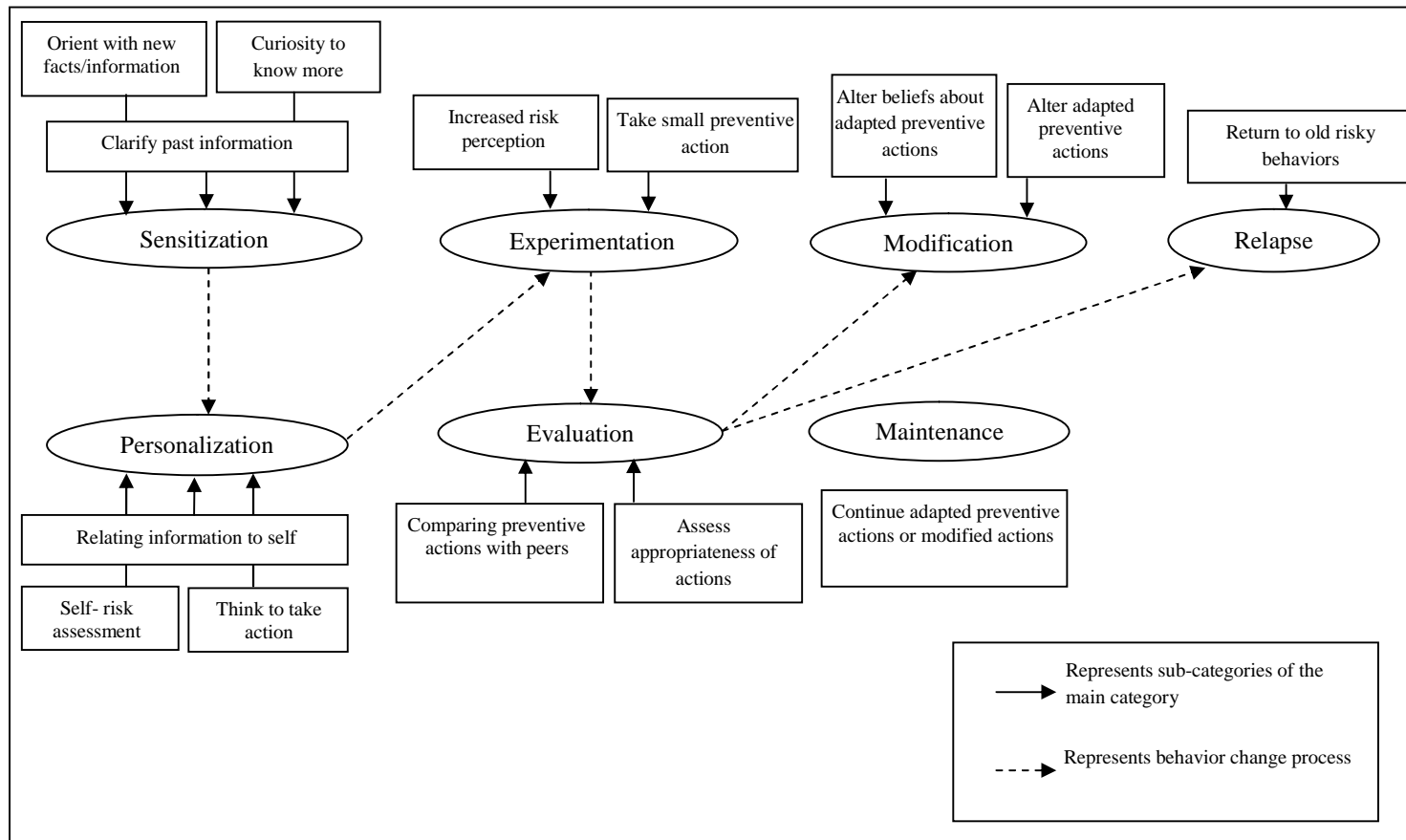
Figure 23. An example of developing main category, sub-categories, elements and its synthesis.

Each category was broken down into sub-categories, elements and sub-elements to give coherence to the emerging analysis. According to Glaser and Strauss (1967), the development of categories, elements, and tentative hypotheses through the constant comparative method, is a process whereby the data gradually evolves into a core of emerging theory. Similar data analysis process was followed in this research. While developing categories and constant comparison process, the researcher had maintained memos to explain the analytic processes in the researcher's mind. The researcher also maintained notes to explain ideas that emerged during the process. Memos and researcher's notes enhanced the analytic process.

Re-coding of the data and establishing inter-coder reliability. The data was re-coded by the researcher after completing coding of the entire data. Then, to check inter-coder reliability, the data were provided to two external coders. One external coder was doctoral student and another was a professional managing HIV prevention program in the Gujarat State. They were oriented about the study and Charmaz's coding system. External coders' codes were compared with the researcher's coding. The percentage of agreement was established after analyzing the coded data, prepared by external coders as well as that of the researcher's, for agreements and discrepancies. Most instances of discrepancies were related to the names of codes rather than conceptual discrepancies. For example, "sharing the information as and when required" was coded as "opportunistic information sharing" by one coder and "sharing knowledge" by the other. This was sorted by analyzing the information which occurs frequently in the data and that resembles the core-meaning of the participants' voice. Therefore, "opportunistic information sharing" was assigned as the final code.

The percentage of agreement of 80.31 percent was calculated using following formula:

Agreement (A) = (U-De)/(U+1/2X)*100

Where,

U= total number of agreements in coding

De= total number of discrepancies in coding

X= total number of clauses coded by one person and not by another (Saraswathi & Dutta, 1988)

Pilot study. The researcher entered the field after receiving permission from Gujarat State AIDS Control Society (GSACS) and the PhD committee, M. S. University of Baroda, Vadodara. The researcher undertook a pilot study to refine research instruments and get firsthand experience of data collection and conducting grounded theory based analysis before initiating real research. Pilot study generated new themes which were included in the research instruments such as counselors' routine and counselors' reflections on training.

Commencing data collection and analysis. After completing the pilot study, actual data collection and analysis were initiated. The analyzed data was triangulated to develop theoretical frameworks. Focused literature review was conducted to explain theoretical frameworks emerged from the data. A synthesized report was developed and reviewed by two external professionals. Publication and dissemination of the research makes the process of the research transparent and sharing of findings may add to the knowledge or useful in the implementation of any relevant programs. The researcher plans to share research findings to Gujarat State AIDS Control Society

(GSACS) and National AIDS Control Organization (NACO) and, publish research results in International peer-reviewed Journals.

Managing Issues of Reliability and Validity

In qualitative research, there are common analytic issues, particularly in relation to internal and external validity threats, that any researcher needs to deal with. Internal validity threats are theoretical, interpretive, and descriptive in nature (Creswell, 1994; Denzin & Lincoln, 1994; Maxwell, 1996; Strauss & Corbin, 1990) and external validity threats are primarily on issues of generalizability (Creswell, 1994; Maxwell, 1996). The theoretical threats were addressed by researcher through addressing contradictory evidence and exploring alternative interpretations of situations or events (Maxwell, 1996).

 Theoretical threats to internal validity. Theoretical threats to internal validity occur when the researcher does not address contradictory evidence or does not explore alternative interpretations of situations or events (Maxwell, 1996). The researcher remained open and receptive to issues that the participants chose to address including contradictory evidence (Bogdan & Biklen, 1990).

 The primary threat to descriptive validity. The primary threat to descriptive validity is an inaccurate representation of what the researcher heard or saw from a research participant (Maxwell, 1996). Qualitative design methods of audio-taping interviews and taking detailed, concrete, and chronological field notes during the interview process enhanced description validity (Maxwell, 1996). Member checks and non-technical literature review provided additional methods of ensuring description validity (Denzin, 1978). Non-technical types of literature (e.g., daily diaries, reports,

counseling register, case studies) were used as cross-checks for authentication

purposes (Strauss & Corbin, 1990) as well as to understand counseling practices and

its contribution to strengthen counseling processes and services. In member check,

research interpretations and analytic reports were shared with participants. The coded

data were shared with participants for their review and feedback. Participants' review

and feedback on the coding were collected by the researcher. Participants' feedback

was collected and incorporated in final analytic report. According to Lincoln and

Guba (1985), "The member check, whereby data, analytic categories, interpretations,

and conclusions are tested with members of those stake holding groups from whom

the data were originally collected, is the most crucial technique for establishing

credibility" (p. 314). Member checks serve to assess intentionality, allow the

participants to immediately correct errors in facts, volunteer additional information,

summarize, and confirm data analysis.

     The primary threat to interpretive validity. The researcher managed threats to

"interpretive validity" (Maxwell, 1996, p. 97) by managing researcher's bias,

reactivity and maintaining objectivity. Researcher's bias occurs when the selection of

data fit the researcher's preconceptions (Miles & Huberman, 1994) while researcher's

reactivity is the effect of the research on the setting or the individual being researched

(Maxwell, 1996). To address the influence of researcher's bias and reactivity on the

validity of the analysis and interpretation, the researcher has wrote note on his

experience as a counselor, updated memos, and the data analysis was reviewed by

external persons (Emerson & Pollner, 1988; Miles & Huberman, 1994).

     The primary threats to external validity. Threats to external validity involve

the ability to generalize research results to similar situations and subjects (Creswell,

1994). Although qualitative research is not intended to provide research results that

can be generalized to other situations or subjects (Creswell, 1994), it does not mean

qualitative research results are never generalized beyond the specific study (Maxwell,

1996, p. 97). Grounded theory based studies are generally conducted with a focus on

the development of a theory that can be generalized to future situations or cases

(Maxwell, 1996, p. 97). The present research has theorized HIV counseling practices,

counselors' experiences, HIV counseling process and behavior change processes

among clients based on the constructivist grounded theory approach, which can be

generalized to the present research context. Additionally, with an improved

understanding of the experiences of counselors', counseling training module was also

developed that will be helpful in training counselors, which will in turn, strengthen

counselors' capabilities for effective implementation of counseling intervention

within TI framework.

The primary threat to reliability. A potential challenge of this research is

the reliability of the research findings and the ability to replicate this study to similar

situations and subjects (Creswell, 1994). Although the uniqueness of this particular

research does not land itself to exact replication, it would be possible to conduct a

similar research using a different site (Creswell, 1994) thereby adding to the body of

literature on this HIV counseling practices in the TI context, HIV counseling and

behavior change processes in the TI context. In order to establish trustworthiness, the

researcher maintained an audit trail that included the transcriptions of the interviews,

the notes of the developing categories, sub-categories, elements and sub-elements of

the data themes, and any process notes taken during the entire process.

To establish credibility, the researcher used prolonged engagement by

conducting two rounds of interviews as well as conducting participant observations of

counseling session. It built trust with the participants and provided opportunities to check for mis-information. Triangulation was used in the research to enhance the credibility. Denzin (1978) describes triangulation as the process of collecting information from a diverse range of individuals and settings using various methods in order to reduce the biases or assumptions made by the researcher. The researcher has gathered the data from multiple sources such as in-depth interviews, participant observations of counseling sessions, reviewing counseling documents and field observations. Further, researcher interviewed participants from a variety of TI NGOs across the state of Gujarat representing participants from six regions. By interviewing counselors from different typology TIs as well as different geographic locations; different types of individuals providing counselors, for example, qualified non-community counselor, unqualified non-community counselor, auxiliary nurse midwife (ANM) and community counselor, altogether made the data much more believable. These multiple sources allowed for greater credibility in the findings.

Role of the researcher. The role of the researcher is an integral component in qualitative research (Lincoln & Guba, 1985; Marshall & Rossman, 1999; Maxwell, 1996; Strauss & Corbin, 1997, 1998). For qualitative research, the researcher is the instrument for data collection and analysis. As a researcher, it is important to be cognizant of the responsibilities inherent in conducting qualitative research, namely negotiating research relationships, balancing objectivity and sensitivity, reflexivity, and maintaining ethical standards (Creswell, 1994; Maxwell, 1996; Strauss & Corbin, 1998). Given that the researcher is an inherent component of qualitative research, it is of paramount importance that these responsibilities were fully addressed. One responsibility of the researcher is negotiating research relationships with the participants (Maxwell, 1996). The researcher contacted the respective TI NGO,

described the importance of conducting this research, and provided a preliminary explanation of the data collection procedures. This was done to negotiate a relationship with each organization and to gain entry and cooperation for interacting with counselors and clients to collect data. Furthermore, given the researcher's background and experiences, the researcher is qualified to negotiate relationships with the participants, which promoted the essential reflection needed.

Another responsibility of the researcher is the maintenance of objectivity. It means remaining open and willing to listen to the participants' "voices." Strauss and Corbin (1998) suggested five techniques to establish objectivity including thinking comparatively, gaining distance to obtain multiple viewpoints of the event or phenomenon, stepping back and assessing what is really going on, maintaining an attitude of skepticism, and following the research procedures. In order to think comparatively, the researcher compared each interview with others which allowed the researcher to stay grounded in the data. The researcher also worked to obtain multiple viewpoints of the phenomenon by interviewing 14 individuals providing counseling from12 different TI NGOs who range in age, sex, qualification and experience. To add diversity to the data, researcher has interviewed community counselors, auxiliary nurse midwives and counselors who have not completed master's education in counseling or social work. The researcher also worked to step back and assess what was really going on by allowing the data to be seen and heard via the counselors' voices rather than through the researcher's voice and by continually checking with the participants to ensure that the derived interpretations were accurate.

The researcher used professional as well as personal experience to develop the conceptual context for the research and key research questions. This was used to establish sensitivity. The use of professional and personal experience as an analytic tool provided a rich source of events to stimulate thinking about elements, properties and for asking conceptual questions. The use of professional experience of a trained qualitative researcher and counselor as a strategy stimulates thinking on how research participants see events or happenings and does not stress on the researcher's perception or perspective (Strauss & Corbin, 1998). Personal experience of serving as a counselor in TI provided an awareness about participants' every day experiences and the meanings associated with those experiences (Maxwell, 1996; Strauss & Corbin, 1998). In this research, the researcher utilized these sources to maintain sensitivity. This helps to ensure that whatever emerges is rooted in the empirical data.

Ethical Considerations (Human Subjects Protection)

Ethical considerations are the foremost concern of the researcher before the research process is conducted. It is the researcher's responsibility to maintain ethical standards before and while conducting the research (Creswell, 1994). The researcher's intention was to promote a trustful relationship with all participants to produce precise, rich information without any negative impact on the participants. The researcher was aware of the necessary balance between objectivity and sensitivity of the information collected. Finally, the researcher was also cognizant of the inherent responsibilities for the protection of the rights of participants and maintaining the ethical standards of this research. Prior to the interviews, a statement of ethical concerns was read to each of the interviewees requiring their signatures to verify their understanding. The protocol of ethics has assured that participation in the study was voluntary and that

names or identities of participant would not be revealed in any case. Participants were also informed that they can refuse to answer any question, and were free to withdraw from the interview at any time. Participants were reassured that they would be able to preview the transcripts of their interviews for accuracy.

The researcher had received permission from the Gujarat State AIDS Control Society, Department of Health and Family Welfare, Government of Gujarat to conduct research and collect data from counselors working with TIs and clients. The approval letter from Gujarat State AIDS Control Society is attached as Appendix F. The PhD Committee of the Department of Human Development and Family Studies, the Maharaja Sayajirao University of Baroda has also approved the ethical considerations followed in this research.

Delimitations of the Study

Delimitation is a boundary line or an outer limit of the research. The boundaries for this particular research, however, were subject to the explicit restrictions of space, time, and money. This research was delimited to the boundaries such as (1) studying counselors from Gujarat State and each counselor was different in his/her qualification, experiences and stages of learning, (2) a small sample size, and (3) the interviews relied heavily on participants' memories, perceptions and their interpretations of their practices.

Limitations of the Study

Grounded theory operates from a post-positivist perspective; therefore the theory generated from the present research is limited in terms of its generalizability; however, the research has generated universal theoretical concepts. The knowledge generated from this research remains context-bound.

Another limitation was the researcher's purposeful selection of "information-rich" cases ranging in diversity. Grounded theory is inherent with limitations that include the author's selective choice of evidence that supports the theory, cleaning up the participants' statements, unconsciously adopting value-laden metaphors, assuming omniscience, and boring the reader (Richardson, 1994). Yet another limitation that might be noted was the issue of credibility and reproducibility. From a positivist standpoint, the issue of reproducibility is quite important in terms of credibility. In qualitative research, reproducing social phenomena can be difficult "because it is nearly impossible to replicate all the variables that might possibly affect findings" (Strauss & Corbin, 1998, p. 266). However, Strauss and Corbin noted that, "given the same theoretical perspective of the original researcher, following the same general rules for data gathering and analysis, and assuming a similar set of conditions, other researchers should be able to come up with either the same or a very similar theoretical explanation about the phenomenon under investigation" (1998, p. 267). Issues associated with credibility, as well as the researcher's treatment to maintain credibility is discussed further in the chapter three.

The last limitation of the research was the researcher's inability to explore all new themes that have emerged from the data. During the data collection and analysis process, various new themes emerged but were not explored in-depth due to time constraints and set research objectives. The present study mainly focused on experiences and perspectives of counselors providing HIV counseling practices, HIV counseling process and the behavior change processes that take place in clients due to counseling.

The researcher kept in mind these criticisms while moving forward with the belief that the emphasis on building an inductive tentative theory grounded in the counselors' experiences provides an understanding of the reality that exist between the researcher and the participants (Charmaz, 2003). All the above points are discussed more thoroughly in the chapter two; however it is important to note that the researcher was aware of these potential limitations prior to the conduct of the study.

Summary

This chapter described the methodology utilized for the present study. Prior to explaining the details of the method, the rationale and purposes for the research were reviewed. In alignment with the purposes, participants and sampling methodology, constructivist grounded theory methodology was appropriate for investigating counselors' experiences of providing HIV counseling within targeted interventions. The constructivist grounded theory procedures involved: (a) preliminary work to develop the research context, research question and the interview questions, (b) design the research which included a description of the research site, sample and

sample size, sampling technique, type of the research data, methods to gather data, research instrument, data collection procedure and analytic framework; (c) pilot study, (d) actual data collection and analysis, (e) managing issues of reliability and validity, (f) ethical considerations (g) delimitation and limitations of the study . The next chapter, results, consists of the treatment to the data gathered through the various methods. It presents results emerged from the data analysis.