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Changing Families and Impact on Health Status of Members: Methodological Details and Challenges during Conduct of the Study

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Abstract

Family is the basic unit in society and is an institution in sociological terms. The intergenerational change in these attributes of family is conceptually called changing families.

Introduction: This is a two-year project conceived with the objectives of exploring the elements in changing families as it is perceived by family members and the impact of the change as they perceive it in the health status of family members in the cultural context of Kerala.

Design: Qualitative study.

Data Collection: Methods of data collection are focus group discussion and in-depth interview.

Results: Total 92 in depth interviews and 17 Focus group discussions were conducted. Quality and rigor were maintained at each level of the study. Plan of analysis was developed as part of protocol and analysis was done manually. The major challenges come across the conduct and analysis of study is discussed in detail. The richness of information collected and this was compared with the time taken during each session. Sampling and generalizability issues which is inherent to qualitative design but particularly relevant to the context of study.

Conclusion: The Methodological details of the qualitative research study are discussed in detail and important challenges are described.

Keywords: Changing families; Qualitative research; Triangulation; Thematic analysis; Open coding

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Introduction

Family is the basic unit in the society and is an institution in sociological terms. Families vary according to structure, functions and dynamics. The intergenerational change in these attributes of family is termed changing families and this change specifically through family functions or dynamics has more significant impact on health of family members. Changing family is a concept of dynamic phenomenon happening in society as an indispensable part of social progress [1]. Change across time and geographical locations are two indispensable phenomena of 'mother nature' and family is also not an exception. The change can be perceived within the family environment or in the extra-family environment. In the dynamic process of change there are structural as well as functional elements influencing it as well as the change influences the various dimensions of health like physical, social, psychological dimensions. What decides the social change is the psyche of the society or the ethos and egos prevailing in the society and this matter and shapes the behavior of people [2]. The deep routed factors deciding the change decides the motivation of family members for specific behavior and these factors can be explored by face-to-face conversation with the members of family through established research methodologies.

Changing families and its effect on health status of family members is a research project of KUHS developed by the public health experts at SHPPS, KUHS. This is a two-year project conceived with the objectives of exploring the elements in changing families as it is perceived by family members and the impact of the change as they perceive it in the health status of family members in the cultural context of Kerala. As public distribution systems and public health interventions are focused at family level, the study also aims to understand the critical barriers for acceptance of the health programs in the community.

Rationale for the study

People behave in their own way regarding matters related to health and they have their own specific reasons for that also. There is paucity of scientific literature enabling comprehensive understanding of the health issues as well as its social determinants at family level especially in the unique cultural setting of Kerala. This knowledge gap can be filled by studying the perceptions of concerned people. The policy implications are to get suggestions on functioning of family centered support systems and safety-nets and insights on barriers of utilization of health services. Understanding changing families is important for planning health services at the time of transformation of primary health center to family health center and introduction of universal health care in Kerala [3].

The purpose is to portrait the world of social reality with key focus on family and health and to explore the linkages between changing families and health care. The study was planned with an explorative design to understand the changing families and its effect through analyzing the perceptions, of various stakeholders. Hence a qualitative approach using in-depth interviews and focus group discussions was adopted [4].

Conceptual framework for the study

Understanding the concepts regarding changing families was attempted through review of literature, and further discussions with experts in sociology, public health for identification of elements of the concept, and definition of these elements. (See list of operational definitions) Conceptualizing health at the family level includes various attributes like morbidity, mortality, fertility and positive dimensions of health like quality of wellbeing [5]. How changing families influence health as an outcome and the overall contribution of these changes to development of the society is conceptualized. The conceptual framework is explained in detail in the paper [6].

Setting and the cultural context

The study was carried out in community setting in three randomly selected districts, Thiruvananthapuram, Trissur and Kozhikode, representing the southern, central and northern regions of the state of Kerala. (See picture of Kerala) (Figure 1).

Traditionally Kerala has been different from other states of India. The matrilineal family system seen in the state is a unique feature of Kerala and is still persisting. Modernization and nuclearization of families is fast happening in Kerala. Globalization and modernization are studied and found to be contributing to these changes. How globalization has impacted family life of Indians is discussed by Shoba Pais [7].

The impact of modernization acts through demographic changes like decreased fertility, ageing population and mortality decline. The number of females headed household's increases due to reasons like widowhood, non-marital fertility, marital instability and migration [8].

Changing family structures and self-rated health of India's elderly population has been reviewed in a recent study (1995-96 to 2014) [9]. The size and composition of families are also changing as a result of migration (internal& international), changes in marital practices (delaying marriage, dissolution of marriage, change in views and attitude towards marriage, high rate of remarriages), fertility changes (fall in total fertility, childlessness), demography of ageing (increase in life expectancy, increase in elderly population, high dependency

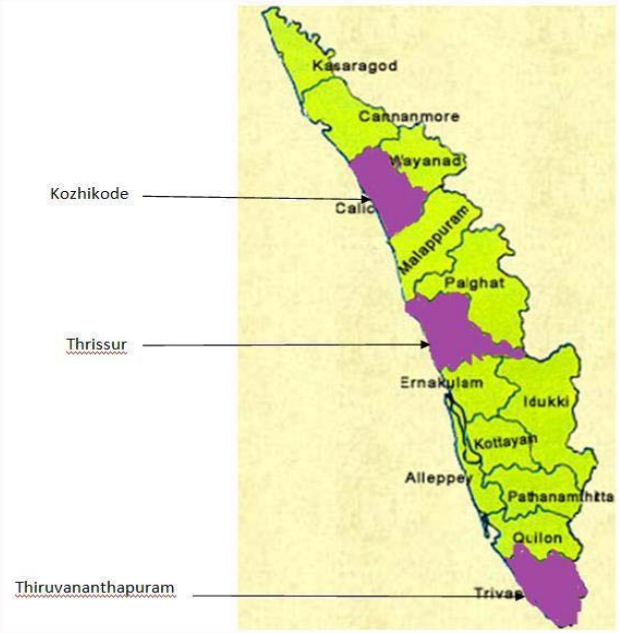

Figure 1: Representative districts of Kerala selected for data collection. *TVM: Thiruvananthapuram; TCR: Trissur; KKD: Kozhikode

ratio) etc. 2/3rd of Kerala's households live in urban areas and 22.7% total households are headed by women [10]. This might be mostly owing to migration. As per the census of 2011 [11], average number of persons per household was 4.3, indicative of a shift towards nuclear families. Median age at first marriage is 21 for females and 28 for males. Fertility is lower than most other states in India, an average of 1.9 children per woman [12]. Female literacy is on the higher side (92%) and work participation rate is 18.23% among females in 2011 census as against 15.38% in 2001. Despite higher literacy, only 47% of women participate in decision making in families. Kerala's sex ratio is 1,084 females per 1,000 males, which is the highest female favored in the country. Problems in families are increasing even with better education, work participation, satisfactory health and fewer numbers of children. Female headed households are 11% in India while this is 23% in Kerala [13]. A recent survey conducted in Kerala reported that nearly 40% of male adult populations were current users of alcohol. The elderly population is increasing rapidly, 12% as per 2011 census. The care and protection of the aged is a challenge to the family in the absence of financial security, comprehensive health care services and adequate family support systems [14]. A significant rate of domestic violence was also reported in the state (nearly 30%) in a multi-site community study conducted by Inter National Clinical Epidemiology Network [15]. The changing family scenario brought out changes in the family norms regarding parenting, lifestyle (dietary practices, personal habits, and physical activity/recreation), family control (permissiveness), and aspirations about life, family support and inculcation of values to younger generation [16].

Another important concept in changing family is the concept of transactional family dynamics. This is the way in which family members interact to each other and influence the intra family relations or dynamics [17].

Participants for the study

The study participants are relevant stakeholder categories including a) family members of different age groups b) Health care

Table 1: District wise lists of in- depth interviews done under selected categories of stakeholders.

SH Categories	TVM	TCR	KKD	TOTAL
Young Adults (15-24 years)	1	4	6	11
Married men & Women				
Newly married <30 (within 2-3 y) Unmarried/separated/divorced/disabled/Marginalized.	2	2	1	5
30-59 years	6	14	13	33
60-80 years	-	3	2	5
>80 years	-	2	-	2
Health providers/Service Providers (Pediatricians, Gynecologists, Psychiatrists, MO-PHC/CHC, Clinical Psychologists& Counselors, Community Health workers JPHN /JHI /ASHA /Anganwadi worker)	7		10	17
Academicians				
Service Providers of LAW & Order (Judges& Advocates of family courts), Social Justice Department, Representatives of LSG, Representatives of LSG, Community leaders(religious/CBOs) SHGs, Kudumbasree, Palliative, Sociologists, Policy Makers/Program Managers	4	6	9	19
Total*	20	31	41	92

providers c) Representatives of LSG d) Academicians e) Policy Makers.

Sampling and sample size

Purposive sampling strategy was used. District was selected as the sampling unit for the initial stage. All fourteen districts were grouped in to three regional groups and one each was selected. Relevant stakeholder groups (Family members, health workers, health care professionals etc.) were identified based on literature review and expert consultation. In the selection of family members' category, the representativeness of age-groups, geographic location (rural/urban/slum/costal/tribal), gender and socio-economic groups was ensured. In-depth interviews were conducted among all these representative stakeholders by trained investigators using open ended questionnaire and informed consent forms. Similarly focus group discussions were done by the investigators among representative stakeholder groups using FGD guides and uniform guideline prepared for the study. The district wise lists of in- depth interviews and FGDs under selected categories of stakeholders are given below (Table 1, 2).

Study period

The duration of study was from 2019 June to December, 2020 December. It took six months for finalization of protocol and development of tools, and one year for data collection and again next six months for final data analysis and report writing. Being a qualitative study, the analysis was started along with data collection.

Ethical considerations

The study was started after the ethical committee clearance from human ethics committee was obtained. Human Ethics committee of KUHS is registered under the DHR, GOI. Informed consent was administered for each interview and also individually for participation in FGD. Privacy and Confidentiality of data was maintained by safe custody of the data under lock and key and strict involvement of study team only in handling the data.

Design

A descriptive design was adopted for the study using qualitative methods of data collection namely In-Depth Interviews (IDI) and Focus Group Discussions (FGD).

Data collection procedures

The draft instruments were piloted in the same study settings. All instruments were administered in local language. Translation

Table 2: District-wise list of FGDs under various Stakeholder Categories.

S.H. CATEGORY	TVPM	THSSR	KKD	TOTAL
Young Adults	1	1	1	4
Married M&W<30 yrs.	1	1	1	3
30-59 yrs.	1	1	1	3
60-80 yrs.	1	1	1	2
>80	1	1	1	2
Health workers				
AWW/ASHA				
Total*	6	6	6	18

and back translation of the instruments were done with help of professional translators. The tool familiarization and finalization of the protocol was done during a two-day workshop conducted at the coordinator site. After piloting on ten numbers of interviewees from the representative stakeholder groups the tools were finalized. The FGD guide was developed and discussed well and finalized.

For data collection, research teams were trained for interviewing and transcription. The FGDs were conducted by the investigators who are social scientists and trained and already trained in conducting FGDs. The study was coordinated at state level from the School of health policy and planning of KUHS situated in Thiruvananthapuram (State Coordinating Office [SCO] for the project). The project consultants and epidemiologists helped the principal investigator in carrying out quality assurance visits, conducting FGDs & State level interviews and data analysis. Network dynamics was monitored and quality ensured at each step of data collection. Completed schedules after transcription and translation will be dispatched to the SCO through speed post once in two weeks. Communication regarding project activities should be directed to SCO, Thiruvananthapuram.

Data processing and analysis

At the outset an analysis plan for the study was prepared with the help of consultant, vetted by experts and finalized. The data was cleaned and analyzed manually by the team at SCO. Transcription and translation were undertaken by the interviewers. After preliminary eye bawling and data cleaning, reading and rereading was undertaken. Thematic and semi-quantitative approach was attempted for analysis of data. Semi-quantitative analysis was done following the steps given below:

- Free listing of responses

- Domain identification
- Coding and
- Summarizing

Domains were identified based on responses that convey homogeneous perceptions. Efforts were made to retain common domains on common issues throughout the stakeholder categories for meaningful comparisons. Coding done was inductive only. Open coding was done initially followed by selective coding. Computer assistance for analysis was with MSOffice word processor and Excel. On attempting comparison, the word to word/line to line comparison was extremely time consuming and exhaustive. Text to text comparison was attempted. The local slang and linguistic equivalence were noted.

Triangulation- Both data and method triangulation were adopted to enhance the internal validity of data. In addition to in depth interviews, focus group discussions were checked for consistency and validity by looking for incompleteness of domains, incongruence of data, repetitiveness etc.

Quantitative analysis of qualitative data was not attempted for the study because we have not used any deductive code or numerical coding [18]. Semi quantitative coding was used in limited situations for counting repeated events and looking for proportions. For e.g. how many proportions of different stakeholder group preferred to institutional day care for elderly was counted in different stakeholder groups like adolescent, elderly, adults and very old group.

Code types (Conceptual codes and sub-codes were given)

The frequency for each question domain is counted and difference is compared. The taxonomy used for analysis is as per Elizabeth H Bradely et al. [19].

The major themes were, Family structure

• Type of family, age structure, and head of household, gender structure

Family functions

• Marriage, reproduction, child bearing, child rearing, care of the elderly

Impact on health outcome

• Physical, psychological, social and spiritual dimensions of the health

Health service utilization

• National programs, hospital services, palliative care services, safety-net and social protection system

Quality assurance during the study

All possible precautions were taken to maintain strict rigor and quality during the planning and execution of the project. Quality assurance measures were adopted at every step a) State-level common training and orientation workshop for research team b) data collection using predefined checklist with timelines. c) Tape recording all procedures. Both in depth interviews and FGDs d) Random checking of 10 percentages of schedules and transcripts by the supervisory faculty. e) Quality assurance visits of Focus Group Discussions at all sites and random number of In-depth interviews.

An advisory committee for the project including academicians (Public health experts as well as social scientists) was constituted and the committee met three times to review the progress of the work. A qualified social scientist who was especially trained in qualitative research was assigned as consultant to the project. All the work was done under the supervision of this consultant.

Three training workshops were conducted one for protocol development at KUHS Headquarters another for training the interviewers and the last one for finalizing the report. The conceptual framework for the study and tool finalization was conducted in the first workshop. The project investigator participated in all the FGDs and also conducted sizable number of in-depth interviews.

All the interviews and FGDs were audiotaped and the quality of recording was appraised by a third person. Transcription was done on the next one or two days of interview or FGD. Analysis plan was developed sufficiently early and this was done manually and as per plan only. All the logbooks were separately maintained for data collection and analysis. Independent site monitoring visits were also conducted by the observers who are well experienced in qualitative research.

The interpretation of data was done by investigators and crosschecked after discussion with all investigators and consultant of the study team.

Results of the Study

The number of participants of Focus Group Discussions is given in (Table 2).

Features about the participants of FGD

Location selected at Trivandrum was Karippur which is an urban location. The participants in this region are typical of an urban setting in Kerala. The adolescents were more easily opening their minds. And the FGD finished in the planned time. The elderly group was more talkative and it was difficult to control the dominance

of one retired defense service man and one civil police officer, here women were less talkative than men. The FGD of ASHA workers was conducted at the Hall of PHC and they all participated equally in the conversation. There were two dominant persons and this was tactfully handled. All the participants of FGDs except that of ASHA workers were hailing from middle class families and sharing a common culture identified by common religion. They all were having more than High school level educational status.

The FGDs at Trissur was conducted in a settlement colony. The participants were of lower middle class whose forefathers migrated to Trissur for labor opportunities. Unlike that in Trivandrum the majority of women were working and had relatively lesser educational status.

The FGDs at Kozhikode was conducted in the PHC with ASHA workers and at the yard of houses for other groups. The participants were homogenous mix from middle class whose husbands were employed in trade or agricultural pursuits. All the participants here were ladies and very few only were employed. Unlike that in Trivandrum or Thrissur this group was much traditional in culture and in the way of thinking also expressed high value for traditional practices.

The groups were homogenous in the major cultural aspects and this was found to be evident in their commonalities in dressings and other way of social interactions. Overall, the involvement of

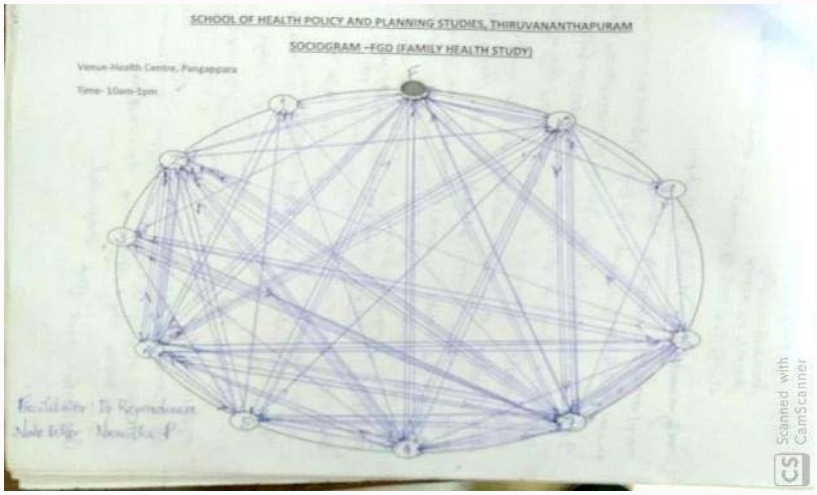

Figure 2: Sociogram with highest involvement.

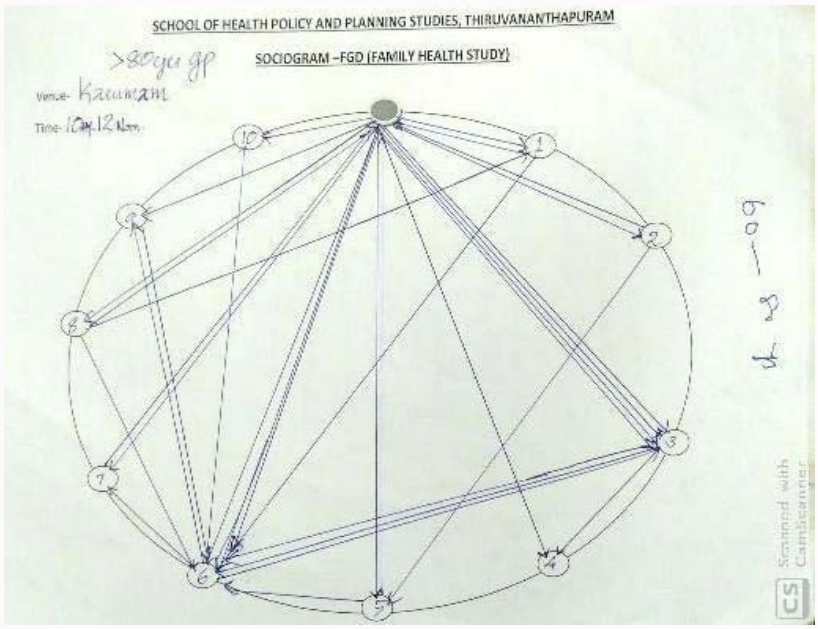

Figure 3: Sociogram with lowest involvement.
The FGDs were conducted in the rural and urban setting

participants both in FGD and in-depth interview was good and only one FGD needed to be repeated with different persons for want of richness of information (Figures 2-4) (Table 3). (The group dynamics is depicted in the two sociograms one with the highest involvement and other with the lowest involvement given as figure).

Discussion

Changing families and effect on health status is an important policy area worth of sociological enquiry. Such an attempt was undertaken by qualitative approach and the methodological issues are discussed.

In qualitative research, how we do the research is more important and the researcher is said to be the tool [20].

Data saturation and richness of information. This was specially looked in the context of theoretical sampling as well as finalizing the number of interviews and Focus group discussions. The details of this are given in table above.

The orientation of the researcher during data collection and analysis was specially considered for reflexivity and a balanced approach for impartial judgment yet for smooth progress of the study was maintained.

Challenges on analysis

The challenges in analysis were identified which are unique to qualitative research methodology. This is especially seen when text-based coding is used. The investigators are more familiar with quantitative analysis. So special precautions taken with help from consultant who is a veteran qualitative research methodologist.

Limitations of the study

Family as a sociological unit and the relation between family and health has been a topic of many studies [21]. Changing family is identified as a phenomenon of considerable importance in deciding

Figure 4: FGD conducted among ASHA workers.
*The total number of in-depth interviews & FGDs was finalized as per data saturation

Table 3: Pattern of data saturation among different stakeholders.

Focus group discussion						
Stakeholder Category	Time taken			Richness of information		
	TVM	TCR	KKD	TVM	TCR	KKD
Young Adults	2 hrs	1½ hrs	2 hrs	3+	2+	3+
Married	2½ hrs	2½ hrs	2½ hrs	4+	4+	4+
M&W<30 yrs						
30-59 yrs	2½ hrs	2½ hrs	2½ hrs	4+	4+	4+
60-80 yrs	2½ hrs	2½ hrs	3 hrs	4+	4+	5+
>80	3 hrs	3 hrs	3 hrs	5+	4+	5+
Health workers AWW/ASHA	3 hrs	3 hrs	3 hrs	5+	5+	5+

*Researcher rated richness of information as evidenced by 1+ for each attribute. 1) Word count, 2) Linguistic clarity, 3) Relevance or topic related data, 4) More than one personal experience given by same participant, 5) Quotable quotes derived or not

health status and this has been discussed in terms of intergenerational changes [22,23].

The major limitation was that the study though conceived and planned to be conducted after careful preparedness the pandemic happened as an unprecedented event. By the time the lockdown was declared and the wave hit the state the data collection was almost finished, but all the data was with the field investigators. Analysis took nearly six months. The pandemic situation has affected the study and resulted in the delayed completion. But we got more time to leisurely act on data and do analysis thoughtful way.

Poor representation of the upper socioeconomic strata may be another limitation of the study. So also is the under-representativeness of tribal or coastal population. Considering the nature of data in terms of richness, volume and diverse opinions and ideas there is immense scope for further analysis in semi-quantitative way. As this was not included in initial protocol, we have not undertaken that at this point of time.

Data saturation is a complex concept and the boundary is noted to be a big challenge for the researcher. Richness is considered as a concept of quality of information and thickness as a concept of quantity of information [24]. Control over the topic by the moderator has been discussed in the context of quality of information from FGDs [25].

Challenges came across

Conceptualization

• There is no agreement on consensus on elements capturing these changes.

Change happens in both structural (social fabric or rubric) and functional dimensions (family functions, and interplay of the functions and relations or family dynamics). These changes in family level are influenced by and influence the prevailing extra familial social changes. The relationship between health and social changes is bidirectional with reciprocity. The changing family is an elusive concept and difficult to capture.

• Grabbing the particular sociocultural reality in the specific environment of family is another challenge. This was particularly looked for in the present study. The rubric of social world is complex vivid and highly changing from time to time. When we ask the perceptions of people full portrait of it may not obtained as such.

• In this complex environment the multiplicity of stakeholders and difficulty in identifying the key stakeholder is another challenge. The exact construct of perceptions, insights, beliefs, values, conflicts, etc. are changing and many a times inconsistent in the minds of

people and to grab them exactly as it is there is again a challenge. How far researcher can elicit this information is the difficult thing.

• Though there is considerable autonomy in functioning of families, the linkages to the specific social influences ultimately determine the family outcomes. The implication of all these challenges is in ensuring generalizability of qualitative research.

Conduct of Study

Deciding on sufficiency of sampling size and operationalization of theoretical sampling are other major challenges identified. The sampling strategy adopted was purposive because the idea was to reach to selected key stakeholders.

Though the FGD was constituted based on reaching to a homogenous group, the participants were of diverse interests and level of education. Handling this diversity in discussions was a real challenge in the smooth conduct of FDG.

Volume of information beyond handling, heterogeneous, vivid and free text, responses to open ended questions were the major challenges. This is considered as advantage of quantitative research but deciding saturation point and counting analysis is explained as challenge.

Analysis

The analytic methods are flexible; understanding the extent of flexibility was a challenge. Structuring and bushiness of the themes and subthemes is yet another challenge. Trimming the redundant information and reducing to major themes is another challenge. Overlap of domains and conflicting concepts is another challenge to be faced during analysis.

Summary and Conclusions

The methodological detail of a health social science enquiry in the form of qualitative data collection focusing on family and health is given in this study. Why the study is relevant in the specific cultural context and how the study was done is detailed. The methodological details are expected to be helpful for future researchers. The major methodological challenges identified are,

• Sampling and generalizability issues which are inherent to qualitative design but particularly relevant to the context of study. Quantitative research is primarily meant for understanding phenomena within a context. Hence which all cultural attributes need to be identified from the context in relation to study question is important.

• Researcher triangulation especially at multiple investigator levels of data collection and analysis level

• Appropriateness of the analytic framework for the study can be checked after completion of analysis. This in relation to richness of information collected as well as reflexivity of investigator and overall rigor of the study are reviewed after the analysis. This was considered for ensuring validity of the results.

• The generalizability of the results mostly applies to the similar cultural settings. The information from the study may help policy makers to plan health services especially the specific disease control programs.

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