

Chapter 2

Methodology

Chapter 2

Methodology

The chapter begins with the purpose of the study and is followed by detailed documentation of the research design, the characteristics of the participants in the study, study sites, inclusion criteria of participants, tools, procedure of data collection, limitations, quantitative and qualitative analysis, and ethical considerations.

Purpose of the Study

The purpose of the study was to find the relationship between stress, coping and health in army spouses during deployment or field posting. More specifically, the study aimed to understand how stress affects army spouses when their partners are in risky terrain, how they cope with the situation, and its impact on their health.

Research Design

The research adopted a concurrent embedded strategy of mixed methods research design to (i) explain and interpret the relationship between the research variables, (ii) explore the phenomenon of coping among army spouses living in separated accommodation, and (iii) know how the stress experienced and the coping strategies adopted impact their physical and psychological health.

Creswell and Plano Clark (2007) gave clarity to the concept of mixed methods which is widely accepted. “Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical

assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problem than either approach alone.” (p. 5)

The concurrent embedded mixed methods research design adopted in the present study has diverse purposes. Concurrent embedded model may be employed when a researcher chooses to utilize different methods to study different groups or levels. For example, in an organization, data from employees can be gathered through quantitative survey, whereas management can be interviewed qualitatively. Tashakkori and Teddlie (1998) described this approach as a multilevel design. Limitations of this method are that the two types of data may not be comparable every time, in all the conditions and if compared, it may result in discrepancies. Also, that the evidence may not be equitable and this can become a disadvantage while interpreting the results.

Concurrent embedded strategy of mixed methods is identified by collecting both quantitative and qualitative data using one as primary method guiding the study, and the secondary method supports, widens and enhances the perspectives shared. As the secondary method is given less priority it is embedded in the primary method. This embedding can also mean that the secondary method is addressing different questions of the research study or seeks information at different level of analysis, which is the case in this study as well. The secondary method, qualitative, apart from giving in-depth details on the topics covered in survey they also address different research questions. The objective of mixing data is to merge information and collate one data set with another. Apart from this, data may not be

compared but may be taken as individual case. The individual cases can then be used to answer different research questions using different methods. The qualitative data collected in the research study served as empirical data to support the results through survey by quoting verbatim comments shared by the participants.

Participants

The study participants comprised spouses of officer rank, junior commissioned rank (JCO) and non-commissioned ranks (NCO) of Indian Army living in separated family accommodation (SFA) or field area family accommodation (FAFA) as their husbands were on field posting (were deployed) and they had no other support system in terms of extended family, accessible to them. They were recruited from Mumbai, Pune, Nasik, Kirkee, Kamptee, Vadodara, Ahmedabad, Delhi, Ambala, and Jalandar. These are various cities in northern and western part of India.

Table 3

Distribution of Sample - Quantitative Data

		Faced field posting once	Faced field posting more than once	Total
Type of Commissioning	Officer	24	90	114
	JCO	27	63	90
	NCO	38	129	167
Total		89	282	371

Purposive snowball sampling was used to collect the data after taking prior permissions from the authorities. As the participation in the study was voluntary, more than

500 eligible participants were approached and only 371 valid data were obtained after excluding incomplete and illegible questionnaires (Table 3). A semi-structured interview was conducted with 23 participants out of the total study sample based on availability and accessibility (Table 4).

Table 4

<i>Distribution of Sample - Qualitative Data</i>			
Participants currently living in FAFA	Faced field posting once (younger lot)	Faced field posting more than once (seasoned ones)	Total
Officers	1	5	6
JCOs	3	6	9
NCOs	3	5	8
Total	7	16	23

Participant inclusion criteria.

- Women whose husbands have been posted in high risk field operations. (High risk field operations are those in which the life of the soldier or officer is at risk).
- Women whose husbands have faced deployment to high risk operation at least once but not more than eight times.
- Women who are living in a Separated Family Accommodation (SFA)/ Field Area Family Accommodation (FAFA).
- Women who do not have any (extended) family support while living in FAFA.

- Women whose husband has been away for at least 5 months.

Tools

1. Questionnaire: The researcher developed a questionnaire to find information on (i) current rating of stress experienced, (ii) awareness of variation in level of stress, (iii) perception of stress, (iv) coping strategies adopted and, (v) the relationship with health. The questionnaire is based on Lazarus' Way of Life questionnaire (Folkman & Lazarus, 1980), Carver's COPE Inventory (Carver, 1989), David L. Tobin's Coping Strategies Inventory (Tobin, 1985, 1995), Cohen's Perceived Stress Scale (Cohen, 1994). Permissions to use the inventories were formally taken from Susan Folkman, Charles C. Carver, Elsevier Publishing Company and David Tobin. The tool includes items on: demographic details, level of stress rating and stressor description, perception of stress, coping strategies used (16): health (descriptive questions)-physical health, psychological health. The questionnaire is thus an adaptation and amalgamation of multiple tools, modified to include the cultural aspects and the context of the army. Locally developed tools on stress, and coping strategies repeatedly used in studies with adolescents, employed women, parents of adolescents and the like were also referred. Some of these tools were also used in the research done by Australian Defence Force, US Military servicemen to find out the relation between stress, coping strategies and health outcomes.

The questionnaire used a 5-point Likert scale to get responses of participants on current rating of stress experienced, awareness of variation in level of stress when the husband is not around, and perception of stress, and coping strategies utilized. The

questionnaire also included qualitative questions about the participants' health and significant stressors in their life. It was developed in two languages, English and Hindi.

The tool was field tested to check reliability and validity as there were modifications done based on the army context and culture. It was checked for content validity by experts in the field of Indian Army, language experts and tool development experts.

2. Cohen-Hoberman Inventory of Physical Symptoms (CHIPS) (Cohen, & Hoberman, 1983): The CHIPS was used to find out specific information about physical health of the participants. The 33-item CHIPS was used to assess common physical symptoms of illness. Participants were required to rate how bothered they were by various problems in the last two weeks on a five-point Likert scale ranging from 0 (not at all) to 4 (extremely). Sample problems include nausea or vomiting, pains in the heart or chest, weight change, and muscle cramps. This tool is available to be used freely. It was modified to suit the context and population under study.
3. Semi-Structured Interview: The domains that were covered in the semi-structured interview were resilience skills, sexual needs, quality of life, own identity, decision making, the difference in stress levels in times when the separation is too long and the separation is about to end, financial conditions, social responsibilities, health of children, sacrifices, own professional growth.

The research tool was tested for reliability and validity with 10 participants of similar demographic characteristics as the study sample. Out of 10, 5 participants were sent the questionnaire on email and the rest were requested to fill it face-to-face. Findings indicated that there were couple of items which needed rewording as the sample population required

more explanation on them (“husband” replaced with “spouse;” “I seek comfort about the issue through meditation or prayer” with “I try to find comfort in my religion;” “I seek solitude and peace about the issue through sources that help me connect with my spirituality” with “I seek God's help;”) and two items were deleted as they were seeking similar information. The tool was also reviewed by the Indian Army authorities to ensure that any questions that may compromise confidentiality were not included.

The findings of the pilot study are shared below in brief:

Sixty percent of the spouses feel high level of stress but their perception of stress falls under moderate category. Acceptance, cognitive restructuring, humor, suppression of competing activities, praying and self-control, problem solving are some of the coping strategies which were often used while dealing with stress. Substance use, behavioral disconnection and denial of the situation is rarely resorted to while dealing with stress. According to the qualitative data, physical health did not have much impact, however psychological health gets affected and it affects their life.

Procedure of data collection

The process of data collection began with taking prior permissions from the head of separated army quarters. Next, area wise permission was taken. Through LinkedIn, the researcher got in touch with army officers and talked to them about their marital life and home. The researcher also met the Director of Army Wives Welfare Association (AWWA) and took his permission to conduct the study. He suggested visiting Aastha Counseling Center of AWWA which has been working actively to address the mental health of army families.

The information about a study being conducted was officially passed on to the respected area quarters. They were also informed that their participation was voluntary. Prior appointments on call were taken and individual visits were scheduled with each participant. The three categories, namely, Officer spouses, JCO spouses and NCO spouses were approached separately for collecting the data. Spouses of Officer's were approached by visiting to each one's accommodation with prior appointment and administering the tool, whereas JCO and NCO spouses were gathered area wise at a common place and the tool was administered in a group setting. The number of participants in a group ranged from four to sixty participants in some areas.

The data was collected from ten army stations in India. The stations were Mumbai, Pune, Ahmedabad, Vadodara, Kirkee, Nasik, Kamptee, Delhi, Ambala, and Jalandar. The researcher stayed at the location in the accommodation provided by that station and collected the data. The duration of the stay ranged from 2 days to 15 days as necessary. The data were collected across a span of nine months from March 2016 to November 2016. The participants went through the questionnaire and recorded their responses. Few participants who did not know how to read and write were given the choice to orally answer the questions and the researcher wrote the responses.

After the participants completed the questionnaire the researcher did preliminary analysis and selected participants for the next phase of conducting semi-structured interviews on the basis of availability and feasibility.

Limitations

- The study assumes that army spouses experience stress.

- The study assumes that the respondents have the ability to report the information requested in an accurate and forthright manner.
- The study is based on the personal perception of the participants.
- Study sample was not equally divided in categories of Officer, JCO and NCO due to lack of numbers and feasibility.
- The semi-structured interviews were done with limited number of participants due to logistical and administrative issues.
- No professional screening was done to check for physical or psychological illness.

Analysis

The study aimed at finding differences and relationships among variables and to achieve this both quantitative as well as qualitative analyses were carried out. Details of both are provided in the section below.

Quantitative analysis.

The following quantitative analysis was conducted to find the relationship between stress, coping strategies and health of army spouses during deployment (see Table 5).

Table 5

Quantitative Analysis Plan

1	Stress in army spouses differs based on type of commissioning.	One-way analysis of variance (ANOVA) was used to determine whether 3 types of stress categories differed significantly by the 3 types of commissioning
2	Coping strategies used by army spouses differs based on type of commissioning.	ANOVA was done to determine whether there were statistically significant differences in the means of 3 types of commissioning and 16 types of coping strategies.
3	Perceived health of army spouses differs with the type of commissioning.	Chi-square was done to find the relationship between type of commissioning and health.
4	Stress in army spouses differs based on number of deployments faced.	ANOVA was done to determine whether there were statistically significant differences in the means of 2 categories of number of deployments and 3 types of stress categories of the research study.
5	Coping strategies used by army spouses differs based on number of deployments faced.	ANOVA was done to determine whether there were statistically significant differences in the means of 2 categories of number of deployments and 16 types of coping strategies.
6	Perceived health of army spouses differs with number of deployments faced.	Chi-square was done to find the relationship between number of deployments and health.

The quantitative data analysis was done using IBM SPSS Statistics 22 windows version.

CHIPS questionnaire used to find out if the participants were suffering from any physical ailments was analyzed by calculating percentages of participants suffering from the specified physical ailments.

Qualitative Analysis.

Qualitative data in this mixed methods research provides data on various domains such as the significant stressor/s in the life of army spouses, impact on their physical and psychological health, resilience, fulfilment of sexual needs, finances, career, decision making, and identity crisis. Some of these domains were covered in the quantitative questionnaire and others were covered in the semi-structured interview.

Thematic analysis was used for the data gathered from the semi-structured interview.

The process followed has been described in Figure 7.

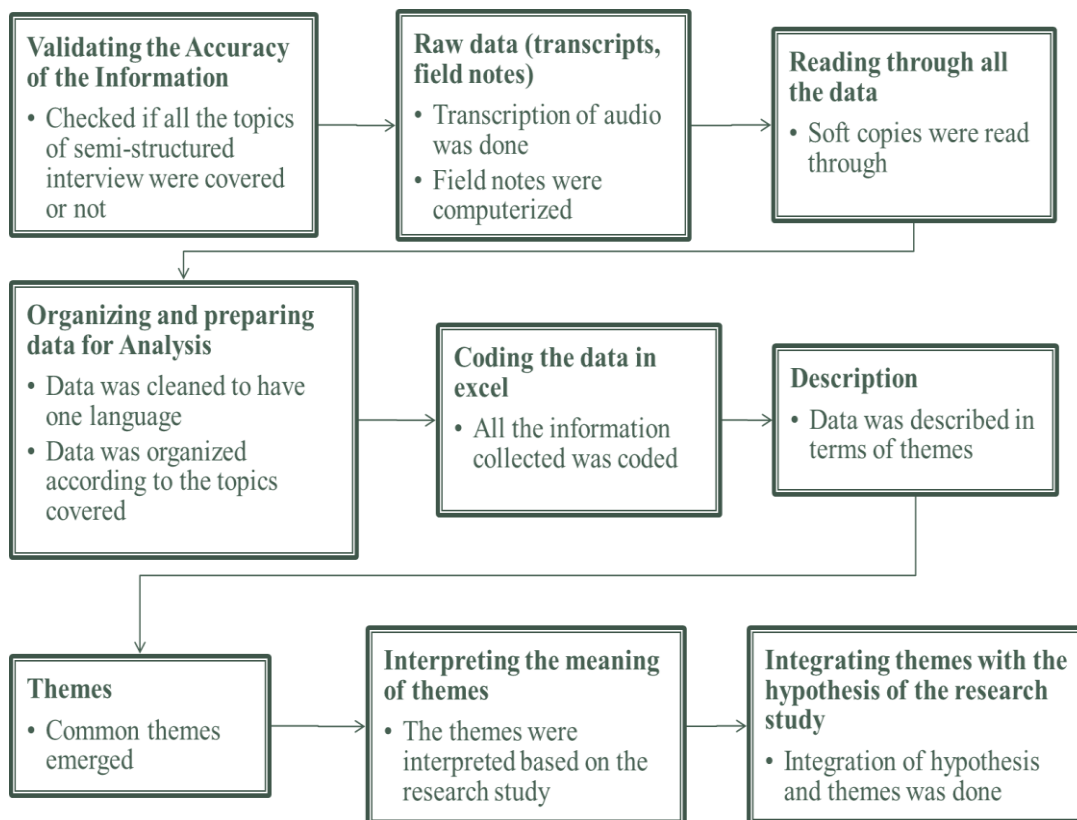


Figure 7: Qualitative data analysis process

Semi-structured interviews were audio recorded for participants who voluntarily gave permission to do so and for others the researcher took handwritten notes. The audio

recordings were then transcribed into a Microsoft Word document along with putting handwritten notes in Microsoft Word. The researcher went through all the data once and edited the discrepancies in language and cleaned the data to remove unwanted expressions, “hmmm, tch tch tch, talking to the house help” and the like, so that only pure content related to the research study was ready to be analyzed. Data was then organized according to the pre-decided topics of semi-structured interview. As the interview was not stringent on sticking to the topics, more data was gathered on other topics as well. Once this was done, patterns in the data emerged in the form of themes and then the themes were interpreted and analyzed based on the research objectives. Open-ended data from the questionnaire was also analyzed in a similar manner.

Ethical Considerations (Human Subjects Protection)

- Informed consent for participation in the study.
- Informed consent for interview recording.
- Voluntary participation in the study.
- Permissions from the authors of the assessment measures used to develop the questionnaire for the present study.
- Confidentiality was maintained.
- Permissions from AWWA (Army Wives Welfare Association) were taken.