CHAPTER - III

METHODOLOGY

PROBLEM FORMULATION
SCOPE OF THE STUDY
AIM OF THE STUDY
OBJECTIVES OF THE STUDY
HYPOTHESES OF THE STUDY
DEFINITION OF TERMS
DESCRIPTION OF STUDY AREA
POPULATION OF THE STUDY
SAMPLE
RESEARCH DESIGN
MATERIALS FOR DATA COLLECTION
METHODS OF DATA COLLECTION
DATA COLLECTION
LIMITATIONS OF THE STUDY
DESCRIPTION OF TOOLS
ANALYSIS OF DATA
By nature man has always been in search of a happy disposition. In the face of trials in life he has searched out avenues of escape. Intoxicating substances have held the lure since time immemorial. The very substances, which relieved man and gave him pleasure, have become the cause of much concern when it has transcended beyond use to abuse. This was when it began to be perceived as a major problem and soon became a public health problem. This widened the base of research studies to the study of addictive behaviours in general. The problem has macro-level consequences, yet in the reality of day to day living it impinges on the individual abuser and his immediate family which bears the brunt of dealing with the various inconsistencies of the behaviour of the abusing or dependent individual.

PROBLEM FORMULATION

The family is the focus of the basic issue. The shift in the perception of the family from only causing the condition to its role in managing the problem of the addict has begun to receive attention. Responding to someone who drinks excessively is said to be a dilemma neglected in the field of alcohol studies (Orford et al., 1992). There has been a considerable amount of research on family members affected by the excessive drinking of a partner, parent or other close relative. Studies that focus on 'the alcoholic', 'the problem user', 'abuser' or 'excessive drinker' overtakes the quality of such research.

The role of families in the treatment of alcohol and drug dependents has undergone a change. The progress of families from the line of guilt to helping the substance abuser sometimes becomes a life long process. The families face many stresses and are forced to carry on despite the consequences of the abuse or addiction
impinging on their lives. The families have to adapt to the situation and try and maintain a certain adaptation.

The study on the relatives of problem drug users by researchers have sought to discover the nature of the relatives' experience, in particular the nature of relatives' coping, support and the other social-psychological issues. The rarity of this type of research was the absence of any community cohort or comparison group. Further it needs to be relatively simple descriptive research (Velleman et al., 1993).

Moreover, the perception of families as a resource in the recovery is assuming new dimensions even if the concept existed earlier. A shift from viewing the negative aspects in families to the positive aspects or strengths is being emphasized. Thus, the ability of the family to change its dynamics of functioning in response to situational and developmental stress is the focus. With the consequences of addiction impinging on their lives the ability of the family to cope and change is a process over time.

Research studies on coping of families of alcohol and drug dependents are very few even in the western context. In the Indian context, coping behaviour of spouses of alcoholics is reported (Chakravarty and Ranganathan, 1985; Rajendran and Cherian, 1990; Sathyanarayana Rao and Kuruvilla, 1992; Suman and Nagalakshmi, 1995; Chandrasekhar and Chitralekha, 1998).

Research studies have often been clinically based and rarely community based with a normative sample for comparison on these aspects. Studies have hardly focused on all these aspects together such as stress, family coping and social supports and its impact on the family functioning in terms of family adaptation and cohesion.

The growing trends of drug abuse in Chennai showed that many people who sought help for cannabis dependence were from the lower socio-economic class.
Certain pockets of Chennai were popular for cannabis such as Clive Battery, Royapuram, Kasimedu and they also had a higher prevalence of drug peddling and abuse in Madras (Kumar, 1994). These later two areas are nearer the seashore. Studies have shown maritime population including merchant, marine, fishery, naval and oilrig workers are generally reported to be high-risk groups (WHO, 1993). The research work of Stella Maris College was the first community study to attempt an overview of the problem of drug abuse. This study revealed the impact of drug abuse in individuals and families. It further highlighted the need to address both these substances together (Anthony et al., 1994).

Further statistics in Chennai indicate that majority of the drug users getting registered and hospitalised are injecting drug users and the trend has increased sharply since 1992. Incidence of hepatitis B infection among injecting drug users is on the rise and a zero surveillance done in an injecting community showed rising rates of infection. As early as 1994 the need for intervention was stressed (Kumar and Daniels, 1994).

Thus the interest was kindled in the researcher to understand the profile of substance abusers in relation to the problems and stresses the families face. Several questions were raised. How does the family respond given the intensifying and relapsing nature of the condition? How can the response of the family be depicted or portrayed in terms of coping? In combining the stress and coping patterns how does the family function and adapt to the condition?

Familial adaptability points to the issue of what is the ability of the family system to change its power structure, role relationships and relationship rules in response to situational and developmental stress? Due to such changes the cohesion would be affected in the family? If so, does it increase or decrease the extent of
separation and connection to the family? How is the emotional bonding the family members have toward one another? These are the factors considered to measure the facilitation or hampering family adaptability to substance abuse.

Few studies have focused on both substances of abuse. A comprehensive assessment of drug and alcohol dependence along with the stress and coping patterns is hardly known in the Indian context. Hence the current study has been formulated to address these issues from a community cohort point of view. The study is a simple attempt at trying to find meaning in a very complex problem but which has a lot of implications for the family—a resource that is indispensable.

SCOPE OF THE STUDY

The scope of the study extends to the substance abusers in Kasimedu area of North Chennai. The study is confined to the families of substance abusers mainly alcohol and drug dependents in comparison with non-user families. Substance abuse is a problem with many adverse consequences, yet it is not often that families seek help for the cessation of the problem. Rather they seek help for certain medical conditions only. This is more so for alcohol dependents. Families are the primary resources with which social work deals. The presence of the family as a system to work within substance abuse necessitates a study of its functioning with its various stressors, the coping mechanisms adopted, social supports available, ultimately influencing the cohesion and adaptability to the problem. The cohesion and adaptability type achieved either facilitates or hinders the family climate.

Family therapeutic approaches have been acknowledged as enabling dependent families to recover in treatment settings. Further, the shift in the trend of understanding families as ‘victims’ and as dysfunctional units to one with strengths
and resilience to face various problems and finding a way of dealing with it brings a favourable dimension to working with families.

AIM OF THE STUDY

The aim of the present research is to study the familial adaptation to substance abuse.

OBJECTIVES OF THE STUDY

The objectives of the study are:

1. To study the profile of substance abusers in an urban coastal community.
2. To explore the stress experienced by the families of substance abusers.
3. To assess the family coping patterns of substance abusers.
4. To assess the familial adaptation of substance abusers.
5. To compare the above among alcohol and drug dependents with that of non-user families.

HYPOTHESES OF THE STUDY

1. There is an inverse relationship between stress due to life events and coping among families of non-users.
2. There is an inverse relationship between substance abuse profile and cohesion among families of substance abusers.
3. There is a direct relationship between coping and adaptability in families of substance abusers.
DEFINITION OF TERMS

1. Alcohol and Drug Dependent:

A person who fulfils the criteria for Drug Dependence Syndrome as per International Classification of Diseases–ICD–10. The syndrome is characterized by a cluster of physiological, behavioural and cognitive phenomena in which the use of a drug or a class of drugs takes on a much higher priority for a given individual than other behaviours that once had a higher value.

A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take drugs (which may or may not have been medically prescribed), alcohol or tobacco. There may be evidence that return to substance use after a period of abstinence leads to a more rapid reappearance of other features of the syndrome than occurs with non-dependent individuals (ICD – 10, WHO, 1992). Persons who fulfil the above criteria are known as substance abusers. Hence, the term dependent or abuser has been inter-changeably used in the study.

2. Family Respondent:

Refers to the key member in the family – viz., spouse, parents or members who spend majority of the time with the dependent person and takes and executes decisions pertaining to the family issues.

3. The Non-User Families:

Refers to families who have individuals who use tobacco but no other substances.

4. Stress:

Selye (1982) articulated stress as 'the general adaptation syndrome' a set of non-specific physiological reactions to various noxious environmental agent. In the
present study, stress refers to the identification of the stressful life events that have occurred in the family in which the respondent lives and based on the number of life events the quantum of stress over a lifetime and during the last year preceding the current study is calculated (Singh, 1981).

5. Family Coping:

Refers to the problem-solving and behavioural strategies utilised by families of alcohol and drug dependents and involves internal and external family coping patterns as defined by Mc Cubbin et al., (1981).

6. Family Adaptability and Cohesion:

Family Adaptability (change) has to do with the extent to which the family system is flexible and able to change. Family adaptability is defined as the ability of a family system to change its power structure, role relationships and relationship rules in response to situational and developmental stress caused by the presence of a substance abuser/dependent person in the family. Cohesion refers to the emotional bonding the family members have toward one another. The adaptability and cohesion are based on the Circumplex Model formulated by Olson et al., (1979). Familial adaptation in this study refers to family adaptability as described by Olson et al., (1982). Further, both these terms are used interchangeably in the study.

DESCRIPTION OF THE STUDY AREA

The place of study is Kasimedu area situated in Royapuram along the coast of North Chennai. This area is known for the fishing industry. This is the universe of the study and has a total population of 50,210 of which 25,786 are males, 24,424 are females and there are 5,895 children in the total population. There are 20 slums and
9,766 households. There are 13 schools in the area, both government and private (Corporation of Madras, 1994). The people belong predominantly to the fishing community called ‘Meenavar’ according to the list of Most Backward Classes. The other communities include the Scheduled Castes referred to as Adi-Dravida Community, Acharis – carpenters, goldsmiths whose ancestors originally hailed from that profession.

Fishing is carried out in the city and its coastal areas, which has an estimated stretch of 25 kilometres within the Corporation limits from Tolgate (North Chennai) to Thiruvanmiyur (Map 1; Government of Tamilnadu 2000). Kasimedu is a one-kilometre stretch along the North Chennai coast. Kasimedu is adjacent to the harbour and is the major fishing harbour of Chennai city governed by the Department of Fisheries. At this place deep-sea fishing is concentrated, whereas in other areas fishing on rafts along the coast is mainly practiced.

The study area is surrounded by a large number of 'kuppams' (slums) and low class neighbourhoods with small pockets of economically well-off people. The area is conducive for fishing and marketing. The area also has cottage industries like steel vessel manufacturing units, rice mills and oil mills. Many of the inhabitants depend on fishing and its ancillary activities as a means of livelihood. Some are seamen others are employed as coolies (casual labourers), and in the Port Trust. They have unorganised local panchayats (not formed by election) for every kuppam with a leader as its head and various other members in the local body.

There are a lot of employment opportunities for casual labour. The majority of women are housewives and others are engaged in selling fish, prawn peeling, dry-fish making or work as domestic maids.
Children are employed in large numbers as coolies, boat watch boys (they look after boats) when anchored. They go fishing on rafts, flicking and picking fish (children steal fishes as they are unloaded and also pick fish from heaps rejected and sell it cheaply and make money). Girls are predominantly employed in prawn processing.

The economic conditions vary depending on the nature of their occupations. Launch owners, factory owners, and few white-collar job persons live in well-built houses whereas casual labourers, unskilled workers live in hutments and slum tenements.

The area has been noted for several crimes such as rape and murder at night times. Thefts are common on the boats. Prostitution is also prevalent in the surroundings. The use of addictive substances was very much occupationally related and abuse of alcohol, ganja, *sundisoru* (rice-beer) (Chopra and Chopra, 1933), brown sugar and tidigesic is high in these areas. These substances are freely available in the area and its environs despite laws to the contrary.

The sea is viewed as Goddess 'Kadal Muthu Mari' (Goddess of sea pearls) and *Abbhishekam* (pouring milk into the sea) is done every Friday. Sundisoru or rice-beer is made by the local fisher folk and drunk by many as it is said to be a coolant after the hard labour at sea.

**POPULATION OF THE STUDY**

Based on the survey of the drug problem conducted by Stella Maris College in 1991, updated in 1994 (Anthony et al., 1994) and a constant updating based on community work, a centralized case register on substance abusers was maintained at the community based centre ‘Sangamam’. The total number of cases registered at the
initiation of the current study was 290 drug dependents and 310 alcohol dependents respectively. This formed the population of the study. Using ICD-10 criteria, the cases were confirmed by a psychiatrist.

SAMPLE

From the centralized case register the sample of substance abusers was selected through a random sampling procedure. Ten percent of the population was considered for the study purpose. The selected sample characteristics in comparison with the total population did not reveal any significant differences. This shows that the sample population was representative of the total population frame considered for the study. Two groups for the study was derived based on the specific substance of abuse, namely the alcohol and drug dependents. Thirty samples were selected from each group. Based on the background characteristics of these two groups a normative group for comparison was considered.

The sampling procedure for the normative group was purposive in nature. This group needed to be group-matched for obtaining the population norms of instruments to be used in the study. The customary variables for group matching could not be considered for reasons the drug dependents being young adults in comparison to the alcohol dependents who were middle aged. The age range difference also contributed to skewed representation in the marital status. The social strata influence in the study area added to the problem of sample selection of the non-users. Representation from the well to do families and those living on the seashore needed to be excluded. Accommodating the sample population characteristics and the social strata presentation to the selection of the non-users was a difficult task to the researcher. Hence, the non-users were group matched against a
few background variables like caste, family size, residence type, education and income of the substance user and non-user samples. Thirty non-users were selected by making contacts through the acquaintances of the substance abusers' families.

RESEARCH DESIGN

Based on the objectives and the limitations as mentioned above descriptive research design was adopted for the study. In order to enhance the description of the study, comparisons were made between the two groups of substance abusers i.e. alcohol and drug dependents, along with that of non-user families. The non-user families provided the baseline normative pattern in the community.

Qualitative research using case study method would also suit the current scientific enquiry. Yet it is not a good alternative for doctoral students seeking to avoid regimentation of quantitative analysis (Padgett, 1998).

MATERIALS FOR DATA COLLECTION

In order to fulfil the objectives of the study various instruments were considered when scanning the literature. The instruments used in various studies were reviewed taking into consideration their reliability, validity and utility in Indian conditions. The following instruments have been identified and considered for the study.

1. Profile of Substance Use Schedule (PSUS).

This schedule pertains to the demographic, social and economic details of the individual and his family. Details regarding substance abuse among the samples in terms of initiation, maintenance and course of the problems was also obtained. This was developed by the researcher based on the family schedule formulated by Indian
Council For Medical Research (ICMR-CAR-CMH, 1990) and the past and present personal history schedule on drug abuse (GRITO-IFCU, 1994). Item numbers 1 through 8 are common for all the three groups. Item 56 is applicable only for the non-user group as a screener for non-use of substance. A copy of the instrument is shown in Appendix 1.

2. Presumptive Stressful Life Events Scale (PSLES).

The PSLES (Singh et al., 1981) was developed to measure the stressful life events in the Indian population and also gives a quantitative estimate of the presumptive stress. The norms, utility in the Indian studies are described in detail in later section of the methodology. A copy of the instrument is shown in Appendix 2.

3. The Family Crisis Oriented Personal Evaluation Scales (F-COPES)

This scale was chosen to study the internal and external family coping patterns. The F-COPES (Mc Cubbin et al., 1981) had items on both family strategies and coping patterns.


Family Adaptation was assessed through the FACES II (Olson et al., 1982). The Family Adaptability and Cohesion Evaluation Scales was chosen as it dealt with the way the family adapted to a condition besides a perspective of its functioning. Further in combination with PSLES and F-COPES it can give a clear picture of the way families of substance abusers adapted to the condition in comparison with non-user families.

The information to be collected was from two levels - family and the individual in keeping with the study objectives. At the family level, the areas to be investigated were the profile of substance abusers and non-users in terms of their background details, stressful life events, internal and external family coping patterns.
and family adaptation. At the individual level it referred to details of substance use/abuse profile as reported by the family member, which was corroborated by the individual user/abuser.

METHODS OF DATA COLLECTION

The need for the pilot study was felt and conducted to know the applicability and adaptability of the instruments considered for the study. The pilot study was later followed by the pre-test. These stages helped immensely in launch of the actual study.

Pilot Study:

This procedure was used to help the investigator to get acquainted with the items of the schedules. Secondly it was done to have adequate experience in using the schedules, in terms of administering the tools, the item presentation, the mode of eliciting information etc.

Permission was obtained from the authors to use FACES–II and F- COPES. The researcher visited the field area Kasimedu and administered the tools to the family of alcohol and drug dependents and non-users using the simplest language.

The instruments were translated into the local vernacular (Tamil) with the help of an expert and it was retranslated and verified with the original version. While pilot testing the instruments certain observations were made. The Profile of Substance Use Schedule (PSUS) has been modified. Since many of the family members attempted suicide, this question was added. The patterns of alcohol and drug abuse were never clearly stated by the family respondent so the need for corroborate by the dependent person was felt.
In the PSLES, the scale required the quantification of the stress during the past year. It was found that the respondents found it difficult and many were unable to give weights to the stresses in terms of percentage. Hence, only the presence of stresses was noted at first level and later they were asked to report for the amount of stress in parts of a rupee. Change in working conditions or transfer – was another item, which they used to describe the seasonal variation of their occupation. Beginning or ending school, failure in exams, was irrelevant for those who were illiterate. Hence the above items were considered ‘not applicable’ and scored similarly for the analysis purpose.

In FACES–II Item 6 – ‘Children have a say in their discipline’ was scored as ‘almost never’ in all cases where children below 12 years were in the family. Item ‘16’ – ‘In solving problems the children’s suggestions are followed’. This item was also scored ‘almost never’ in cases where children were young in the family. Except when children were older, working or married and were males, their opinion was taken into consideration. Otherwise, culturally the opinion of children is not considered in decision making especially when they are females.

In F–COPES – Item ‘18’ ‘Exercising with friends to stay fit and reduce tension’, was omitted in the scale for scoring by the scale authors and was also omitted by the investigator. Items 14,23,27 and 30 in the scale referred to seeking spiritual support in the context of Christianity in the western culture. In the study the item was modified according to the religion of the respondent ‘Receiving gifts and favours from neighbours’, often referred to their relatives such as their parents, siblings.

The linguistic comparison exercise between the original English version and the retranslated English version from Tamil did show certain incongruence in the
items as reported above. The translation procedure employed aimed at equivalence rather than a literal word to word translation. Hence, on discussion with experts in the field a face validation was obtained.

Pre-Test:

In the pre test it was planned to administer the translated tools in Tamil to 10% of the sample – 3 alcohol dependents, 3 drug dependents and 3 non-users. The samples were selected at random. The initial rapport was built and then data was collected. The initial interview was used to confirm the case.

The order of the instruments was decided. First the profile of substance abusers and non-users was administered. This was followed by the PSLES. The PSLES also helped to confirm several items mentioned as part of the schedule on the profile of the samples. The F-COPES followed the stress scale and finally FACES-II was used.

The investigator realized that tracing the substance abusers and obtaining their permission was not easy as they were hard to locate. The familiarity of the researcher of having worked with the local population for five years was a major boon in identifying the drug addicts. Based on the pre test the researcher became aware on the need to complete the data collection procedure with the drug dependents group at the first level and in a faster manner before loosing any of the samples selected due to natural or unnatural reasons associated with these individuals. For the alcohol and drug dependents the truth was less forthcoming if the dependent was at home, for fear of reprimand.

The spouses and parents were able to relate most of the details about the dependent person. However, on certain details of substance abuse the family
respondents' knowledge was not very accurate, as the dependent does not consume the substance at home. The time for administration of the schedule and scales was also assessed.

The researcher attempted interviewing all family members, but it was not feasible given the erratic schedule of their occupation and availability in the house. In many cases the children were very young and unable to express. An attempt was made to always include a key member of the family based on their convenience and availability.

The schedule and scales were made suitable for computer adaptability. They were pre-coded and a codebook was prepared. Dummy tables were created based on the pre-test.

DATA COLLECTION

The researcher was involved in provision of professional service to this community. Secondly, she was instrumental in setting up the community service centre in the study area before the starting of the current research activity. This facilitated the researcher's familiarity among the study population. Yet tracing the drug dependents was a difficulty as discussed in the pre-test section. They were first traced and after obtaining their consent their family members were met. At the first contact itself the drug abuser was interviewed on the PSUs instrument. To obtain the information from some of the drug abusers the researcher had to repeatedly visit their families, known places of their visits and at times to the hospital where they were admitted. The families of alcohol dependents were more easily available as they were often found in the family context. The entire data collection for a family took 2 to 2½ hours. The data was collected using the interview method from the family
respondent. The data was collected over a period of one year. Confidentiality and anonymity was preserved on the information given.

**LIMITATIONS OF THE PRESENT STUDY**

The small sample size of each group is one of the limitations of the study. This was due to the constraints of locating drug dependents according to the random sample. Secondly, the alcohol dependents hesitated to talk about their situation, when they don't perceive they have a problem. They minimize it, which is an integral part of any community based research work on alcoholism.

The FACES and F-COPES are western scales. Indian scales on cohesion and adaptability were not available. The scales utility has been described in the Indian situation (Johnson, 1994; Philip, 1999).

A standardization process for the utility of FACES and development of norms is currently occurring at National Institute of Mental Health and Neuro Sciences, Bangalore, India.

The FACES Scale was administered only to one family member and not others, as it was never easy to meet all members at the same time despite attempts to do so. However, the family respondents were asked to respond for the family as a whole. To overcome such difficulty with substance abusers, specifically the alcoholics, Ray and Sekar (1985) reported that the information provided by the key members in the family did not differ with that of the information provided by the other member of the family.

The dimensions of life events in terms of entry, exit, desirability, anticipated, unanticipated could not be collected from the respondents as it was difficult for many of the respondents. The assessment of life events was carried out to look into the
number of events and the quantum of stress the families had than the dimensions of life events as described in the scale. Various Indian studies using the same scale had adopted such a procedure.

The study showed some specific findings with family life stages in the correlation analysis. Yet it was not so in regression model, wherein there was no association for prediction. A large sample study on family life stage and family adaptation perhaps needs to be carried out to answer this limitation of the study.

With regard to FACES scale and Circumplex Model we find much criticism in changing definitions of the model and the concepts. The subtle changes in terminology stemming from ongoing research serve to enhance the descriptions of the family. Further with wider cultural applications of the scale these subtle changes have facilitated understandings of family functioning in diverse cultures and groups. It has drawn attention to the fact that what is abnormal in one culture or group might not be so for another.

With all these limitations the scale is interpreted with caution by comparing with a normative data obtained from families of non-users living in the same geographical area.

The study is a cross-sectional work on a community cohort; hence the findings do not look at stages or phases of adaptation. Changing concepts of the family adaptability as flexibility as per the clinical rating scale (FACES III) does not apply to this study as it used FACES II to look at the ability of a family at a given point of time than measuring the amount of change over a period.

The focus of the study was on the families, specifically the positive aspects. This was derived out of the instruments used and observation of the researcher. It
would have been better if a detailed enquiry on the same were made using a semi-structured interview schedule.

DESCRIPTION OF THE TOOLS FOR DATA COLLECTION

This section details the instruments used in the current study. A detailed description of various instruments scrutinised for the study purpose, those selected for the current study, the method of construction of the scales, the validity, reliability exercises carried out by the original authors, the utility of the instruments in the Indian setting are provided.

Profile of Substance Users and Non-users (PSUS):

The investigator framed the schedule on profile of substance use based on the needs of the present study. Several interview schedules used in the field of substance abuse were reviewed before the formulation of the schedule. The interview schedule was meant for families with a limited educational level. The difficulty of interviewing families of addicts required a personal rapport hence an interview schedule was preferred. The family schedule formulated by Indian Council For Medical Research (ICMR-CAR-CMH, 1990) and the past and present personal history schedule on drug abuse (GRITO IFCU, 1994) formed the basis of development of this schedule. The schedule had four different aspects as described below.

(a) The background details enumerated the demographic, social and economical details of the samples. Under each domain specific items were enlisted to obtain a detailed background to be used as independent variables. Further, to understand the stage of family cycle the classification developed by Duvall (1985) was used. This part was common for both the users and non-users selected for the study.
(b) Substance abuse history in terms of past and current pattern of abuse. It focused on reasons for substance abuse and non-use, consumption per day, reactions to substance abuse, occupational record, past health status.

(c) Consequences of substance abuse - physical, psychological, family and legal aspects.

(d) Treatment history and rehabilitation.

The later three sections b, c, and d are applicable for the substance abusers only. The last item No. 56 on reasons for non-utilisation was used as a screening item for the non-users.

Presumptive Stressful Life Events Scale (PSLES):

Research by several renowned psychologists showed that stressful life events play a causative role in the normal history of many diseases. Further work confirmed the role of life events and has led to the development of several stressful life event questionnaires which provide a basis for the quantification of life events e.g. in terms of Life Change Units (LCU) in the Social Readjustment Rating Scale as a measure of stress (Holmes and Rahe, 1967). The commonly used scales have been SRRQ of Holmes and Rahe, 1967 or Scaling of Life Events (Paykel, 1971).

In India too these scales have been used without major modifications. Because of cultural differences and non-validation of these scales in our population the results obtained by these studies are unreliable. To overcome this deficiency in view of the various other shortcomings of the existing life events scales the PSLES by Singh (1981) was constructed.

Singh's aim was to (1) construct a stressful life events scale for use in the Indian population (2) to estimate the mean number of stressful life events experienced by the normal adult population in this culture and (3) to give a
quantitative estimate of the presumptive stress (weighted scores) as experienced by the Indian adult population on each specified life event in order to quantify total stress experienced by different clinical groups.

Construction of the Scales:

A sample of 200 subjects of both males (N=120) and females (N=80) with varying educational level and marital status were chosen. Initially the Social Readjustment Rating Questionnaire (SRRQ) of Holmes and Rahe (1967) consisting of 43 items was given individually to 105 subjects in the age range of 15 to 75 years. They were also asked to rate the events for relative stress experienced by them during the previous one year and also during their whole life. New items were obtained e.g. conflict over dowry, family conflict, unfulfilled commitments etc. At the same time certain items had to be excluded e.g. Christmas, change in school, change in working hours etc. which were not reported. Finally a questionnaire with 55 life events was constructed.

The respondents gave responses to the relative stresses in relation to specific life events in terms of percentages, mostly in terms of number of paise out of one rupee rather than the graded four-point scale. In the second revision 100 was kept as the highest stress score.

The subjects were asked to report the estimate of subjective stress to actually experienced life events in relation to a possible maximum score of 100. After administering this revision of scale to 30 subjects, only 8-12 items were being reported on an average by each individual out of the 55 items. It was decided to ask subjects to report not only those items they had actually experienced but in addition they were to imagine how they would feel if they had experienced it at some time in
their life. After this modification the scale was administered to another 65 subjects giving two types of stress scores i.e. real stress score and imaginary stress scores.

The difference between actual and imaginary stress scores was not statistically significant. The items were further reduced to 51 from 55. The scale with 51 items was classified according to (1) personal or impersonal (not dependent on individual's action), (2) desirable, undesirable and ambiguous.

In terms of the frequency of occurrence of each event it was observed that death of close family members, getting engaged or married, pregnancy of wife etc., occurred more frequently in lifetime. Financial problem or loss, death of family member, change in working condition was experienced more often in the past one year by our population.

Some events eg., death of spouse, marital separation or divorce, outstanding achievement occurs less frequently in lifetime and in the past one year as well. Events like detention in jail, death of friend and broken engagement or love affair were found to be totally absent in the past one year and thus were relatively uncommon in our population.

The norms for the scale have been obtained from an adult Indian population both for the Stressful Life Events over a lifetime and the last year. The scale has been utilised by Sharma and Ram (1987,1988), Noronha (1988), Thomas (1991), Ali (1992).

Family Crisis Oriented Personal Evaluation Scales (F-COPES):

The Family Crisis Oriented Personal Evaluation Scales (F-COPES) (McCubbin, Olson and Larsen, 1991) was created to identify problem-solving and behavioural strategies utilized by families in difficult or problematic situations.
Development of F-COPES:

The picture of family adaptation to stress that emerges from Hill's framework (1949) and Burr's synthesis (1973) depicts the family as a reactor to stress and a manager of resources within the family system. As early as 1958, Hill's B factor identified family resources to include family's use of social support networks such as extended family members (Caplan, 1976), friends and neighbours (Litwak and Szelenyi, 1969). The family's approach to problem solving (Aldous et al. 1971; Klein and Hill, 1979) is another factor that can be included as a family resource.

Another aspect of coping in the family is the appraisal of the situation – i.e. the 'meaning' a family attaches to a stressful situation. Incidents that eventually lead to breakdown dysfunction may depend upon the presence or absence of explanations which help the family to make sense of what happened, why it happened and how one's social environment can be arranged to overcome the undesirable situation. The application of social meaning to a situation renders stressful situations less irrational, less unacceptable and more understandable in the context of the situation in which they occur (Gerhardt, 1979).

The concept of family coping has been investigated and the coping strategy is not created in a single instant, but is progressively modified over time. Such behaviour involves the management of various dimensions of life simultaneously; maintaining satisfactory internal conditions for communication and family organisation; promoting member independence and self-esteem; maintenance of family bonds of coherence and unity; maintenance and development of social supports in transactions with the community; and maintenance of some efforts to control the impact of the stressor and the amount of change in the family unit.
F-COPES was designed to integrate family resources and the meaning perception factors identified in family stress theory (Hansen and Hill, 1964; Burr, 1973; Mc Cubbin and Patterson, 1982, 1983a) into coping strategies.

A review of the literature relating to coping theory and research, as well as other inventories such Family Coping Inventory (FCI) and the Coping Health Inventory for Parents (CHIP) was the first step in the construction of the instrument.

Forty-nine items were generated and later pre-tested using a convenience sample of 119 family members representing all stages of the life cycle. Each respondent completed a questionnaire rating items on a five point Likert type scale indicating the extent to which they agreed or disagreed. When these data were analysed for clarity and variance, the number of items was reduced to 30.

Following the initial data analysis, factor analytic procedures were used to determine the underlying dimensions. Eight of 30 items had factor loading greater than 0.38. Eight scales emerged which were grouped into two dimensions: internal and external family coping patterns or strategies defines the way individual family members handle difficulties by using resources residing within the nuclear system. External family strategies or coping patterns are the active behaviours the family employs to acquire resources outside the nuclear system.

Conceptual Organization:

The coping consists of Internal and External Family Coping Patterns. Three scales come under Internal Family Coping Patterns.

1. Confidence in Problem Solving consists of four items reflecting the family's appraisal of problems and their sense of mastery in dealing with unexpected events. Its internal reliability is .70.
2. Reframing family problems also composed of four items, relates to the family’s perceptual orientation toward stressful experiences or whether the family views change positively, negatively or more neutrally. It’s internal reliability equals .64.

3. Family passivity another four-item scale focuses on ‘inactive’ or passive behaviours a family might employ, such as avoidance responses based on a lack of confidence in one’s ability to alter the outcome.

Five scales compose External Family Coping Patterns.

1. Church/Religious resources are a four-item scale, which reflects family’s involvement with religious activities and ideology in dealing with difficulties.

2. Extended family, a four-item scale focuses on obtaining support by communicating and doing things with relatives.

3. Friends are a four-item scale emphasizing involvement with friends to obtain social support.

4. Neighbours contain three behaviour items, which centres on receiving help and support from individuals within the community.

5. Community Resources – containing three behaviour items that emphasizes utilization of neighbourhood agencies and programmes such as counselling services and physicians.

Reliability and Validity:

The reliability for the entire scale was .77. Another test-retest reliability was conducted among 150 respondents and alpha reliability of the total scale was 0.71. A large sample of 2740 enabled reliability and validity checks.

Scoring Procedure:

A sum score can be obtained for each sub-scale and total scale by simply summing the respondents’ score for each of the items. However, four items,
12, 17, 26 and 28 the scores must be reversed (i.e. 5=1, 4=2, 3=3). This will ensure that all items are weighted in the positive direction for both the analysis and interpretation of results.

Family Adaptability And Cohesion Evaluation Scales- FACES:

The conceptual clustering of concepts from family theory and family therapy literature revealed three central dimensions of family behaviour: cohesion, adaptability (change), and communication. These are three primary dimensions integrated in the Circumplex Model as formulated by David Olson, Candyce Russell and Douglas Sprenkle (1979, 1980, 1982, 1983 and 1989).

Family cohesion assesses the degree to which family members are separated from or connected to their family. Within the Circumplex Model specific concepts used to diagnose and measure the cohesion dimension are: emotional bonding, boundaries, coalition, time, space, friends, decision-making, interests and recreation. Family adaptability (change) has to do with the extent to which the family system is flexible and able to change. Specific concepts used to diagnose and measure the adaptability dimension are: family power (assertiveness, control, discipline), negotiation style, role relationships and relationship rules. Family communication is the third dimension and it facilitates movement on the other two dimensions.

Within the Circumplex Model, there are four levels of family cohesion ranging from extreme low cohesion to extreme high cohesion: disengaged, separated, connected and very connected (enmeshed). The two moderate or balanced levels of cohesion have been labelled separated and connected. There are also four levels of family adaptability: ranging from extreme low adaptability (change) to extreme high adaptability (change): rigid structured, flexible, and very flexible (chaotic). The two
moderate or balanced levels of adaptability have been labelled flexible and structured. For each dimension, the balanced levels (low moderate levels) are hypothesized to be most viable for healthy family functioning and the extreme areas are generally seen as more problematic for couples and families over time.

Sixteen distinct types of marital and family systems are identified. This is by combining the four levels of the cohesion and four levels of the adaptability dimensions. Four of these 16 types are moderate on both the cohesion and adaptability dimensions (balanced types). Eight types are extreme on one dimension and moderate on the other (mid-range types) and four types are extreme on both dimensions (extreme types).

FACES II was developed as a short instrument with fifty items. This scale consisted of simple sentences so that it could be used with children and those with limited reading ability. It was designed to reduce the number of double negatives and provide a 5-point response scale. The individual autonomy (independence) scale was dropped from cohesion but most of the other concepts related to the two dimensions were retained. An additional goal was to develop a scale that was empirically reliable, valid and had independent dimensions.

During the development of FACES II, 464 adults responded to 90 items. The 90 items covered the 15 content areas of cohesion and adaptability with 6 items per content area, some of which were items from the original FACES. On the basis of factor analysis and reliability analysis the initial scale was reduced to 50-items. The reliability in terms of internal consistency for the 50-item scale was .91 for cohesion and .80 for adaptability. The test retest correlation for the 50-item FACES II scale was .84; it was .83 for cohesion and .80 for adaptability.
FACES – II (30 item scale)

The 50-item FACES II scale was administered to 2,412 individuals in a national survey (Olson et al., 1983). On the basis of factor analysis and reliability analysis, the 50-item scale was reduced to 30 items with 2-3 items for each of the 14 content areas. The final 30-item scale contains 16 cohesion items and 14 adaptability items. There were two items for the following eight concepts related to cohesion dimension. There were two or three items for the six concepts related to the adaptability dimensions. Because the scale was designed to measure family dynamics the items focused on system characteristics of all the family members currently living at home. The general norms were based on 2543 adults across the life cycle. The clinical norms were based on problem families with a chemically dependent member. There was very good evidence of internal consistency (r = .90). The test-retest reliability after 4-5 weeks was r = .83 for cohesion and r = .80 for adaptability.

The scale showed very good evidence of face validity and content validity. The correlation between cohesion and adaptability was r = .25, .65 respectively. The correlation of cohesion and adaptability with social desirability was .39. For adaptability and social desirability was .38. There was good evidence of concurrent validity. The clinical utilities of the scale are many. There’s very good evidence of usefulness of the self-report scale, it is very easy to administer and score the scale. There’s good evidence of ethnic diversity utility.

Administering and Scoring Procedure:

The instrument is easy to administer and simple to score. It can be administered on an individual basis, such as, when a couple or a family is seen in therapy or in research projects. It can be used in larger groups e.g. families responding in mailed survey. The respondent is asked to read the statements and
decide for each one how frequently on a scale that ranges from 1 (almost never) to 5 (almost always) the described behaviour occurs in his/her family.

Overview of Scoring:

The FACES II Linear scoring also gives its correspondence to Family Types. The four levels of cohesion and adaptability remain the same. Categories of 'enmeshed' and 'chaotic' are no longer measured. Instead 'very connected' and 'very flexible' are more appropriate concepts for scores in that range.

Interpretation based on scoring derivations:

Apart from considering the mean values derived, the authors derive different levels of adaptability and cohesion. They go a step ahead by adding these two major areas and divide it to yield family types. The description of each level as defined by the author is presented below.

Family Cohesion:

Disengaged – members are independent and their commitment to the family is low, there's little closeness, high independence, high separateness.

Separated / connected – there's more emphasis on the individual and less on the relationship. Levels of closeness are often low to moderate in a connected family system, with lower levels of loyalty. There is often more independence than dependence and more separateness than togetherness.

Connected/cohesive - at this level there is more emphasis on togetherness and less on separateness. There is some loyalty to the relationship and there is often more dependence than independence. There is moderate to high closeness.

Very connected/enmeshed families demand very high degrees of loyalty and closeness that individuation is hampered. Expression of disagreement, independent thoughts and feelings are not tolerated. It has very high levels of dependence.
Family Adaptability:

Rigid families adjust too little. They continue to use the same ways of solving problems regardless of changes within the family or in the surroundings. There is very little change and leadership is often authoritarian. As a result discipline is strict, roles are very stable, rules are very clear and stable and there is limited discussion.

In structured families leadership is sometimes shared, somewhat democratic and discussion is organized. Roles are stable, rules are clear and stable and there is moderate change.

In flexible families leadership is often shared, discipline is democratic, there is open discussion, role sharing, rules are clear and flexible and there is some change.

Very flexible/chaotic families have extreme change or 'too much' change often due to lack of leadership. Discipline is erratic and inconsistent partly because there are often dramatic shifts in family roles. The discussion is endless as these families are completely without structure, rules and roles. No one knows what to expect. Both are unbalanced and problematic as families are stuck at these levels.

Family Type:

Balanced families – fit into four central categories on the relationship map. Balanced families are flexibly separated, flexibly connected, structurally separated, structurally connected and this level characterizes functional families. Mid-range families are extreme on one dimension but balanced on the other. Extreme families are ones who score at extreme levels on both dimensions. This level of too much change or too much stability is seen as dysfunctional. The two balanced levels of change are called structured and flexible. These are characteristic of relationships that have a good balance between stability and change. Of the two, structured relationships have more moderate levels of change with leadership that is sometimes
shared. Discipline is often democratic, and the roles are stable. In flexible relationships there is more change. Often both the relationship between the couple and the relationship among family members are more democratic and there is also role sharing between the couple.

DATA ANALYSIS:

After the data was collected it was checked for completion. The data was coded, entered and analysed using Statistical Package for Social Sciences (SPSS) 6.0 for Windows. The data was presented using descriptive statistics such as frequency, range, mean, and standard deviation. In domains with dichotomous value labels, single value label representation with percentile distribution is shown.

To obtain the significant association the chi-square test was employed. The nominal value distributions were at times clubbed to employ test of association. When cell values were less than five, Yates correction factor was used.

In order to find the variation between and among the three groups studied analysis of variance was used. A correlation matrix was obtained for each group to see the relationship between the variables and the scales used in the study. In the presentation of the matrix only significant correlations were considered. Significant correlation values between scales domains were not considered, as they were part of the internal consistency of the scale used. Finally, a best model predict was obtained through multivariate analysis using regression. Adaptation and cohesion were considered as the dependent variables. All other variables were entered as independent variables. The equations with significant analysis of variance result were considered. Only the best model along with the significant variance of regression are shown in the tables. The results obtained based on the above analysis are presented in the following chapters.