CHAPTER III

PROBLEM AND PROCEDURE
3.1 INTRODUCTION

As introduced in the first chapter and reviewed in the second chapter, the work impact of the mothers do have an effect on the overall development of their child. This study has been a modest attempt to examine the emotional and mental development of the child in relation to the work status of their mothers. In other words how negatively or positively do the work statuses of their mothers affect the emotional and mental competency level of their children. How the growth of their child gets affected and so does their personality type?

In the studies reviewed, we observe that work status for women plays a very crucial role, as it gives a varied picture of the "whys" of work which then influences the attitude towards work, which in itself plays a prominent role in creating a positive effect or a negative effect on the family or the children. Thus lots of problems are being faced by the women themselves, may it be working or non-working, which indirectly affects their own competency level. This has an influence on the growth of competence in their own children, which is an important aspect studied in this research work. In the modern trend along with better acceptance of women herself, a number of positive studies are also reviewed in respect to their work status as like increased father’s participation, a better sense of responsibility observed by the children, gaining a better social status or a position in the society and in the family both. These studies also reveal a lot of other underlined aspects
such as anxiety, conflict, frustration, level of adaptability, personality type, etc of both mother and the child. Thus a number of variables are inter-related which needs an in depth study.

The variables specifically studied herein are work status of mothers, education, caste and emotional - mental competency of mothers. The present researcher believes that there is a negative effect of work status of mothers on the emotional and mental development of their children. In order to study this, the investigator has used a specific test namely Emotional and Mental Competency Scale constructed by Dr. Patel (2003) and later adapted by the present researcher for further study. Because of which a pilot study had to be undertaken for the test adaptation.
The present investigator has used a special tool or a new test constructed by Dr. Patel (2003) to study the mothers and their youngsters competency level. Thus before starting with the administration of the test proper, it was thought to be necessary and advisable to conduct a pilot study in order to confirm the need for adaptability to check the items as well as the reliability and the validity of the test of Emotional, Mental and Behavioural Competency Scale (EMB) earlier constructed and standardized by Dr. A.S.Patel (2003). To check its adaptability of statement items and also to check the reliability and validity of the test, it was essential to repeat the procedure carried out earlier, by the original author Dr. A.S.Patel. The questions listed in the items were reframed, adding a few more, referring to the different personality characteristics, a person-both adult and young possesses. It mainly focused on the individual differences. Every individual differs in his or her nature, personal characteristics, and traits inborn or inherited as well as acquired. There are people who are very strong and bold or independent, while some are very aggressive, anxious, depressed, and dependent on or easily influenced by others. These qualities or characteristics indirectly indicate levels of emotional, mental and behavioural or social competencies possessed by an individual as to how they cope up with the situational factors and in realities per se.
To find out these emotional, mental and behavioural or social competencies or the maturity level possessed by individual persons, an attempt was made to construct a type of questionnaire which include the related aspects of the individual personality or character, as studied by the earlier author Dr. A. S. Patel. This adapted questionnaire consisted of 100 questions in all, including those in the earlier test and worded in Gujarati version to be understood by the majority of subjects at local level in Gujarat (subjects in Ahmedabad). The adapted questionnaire consisted of specific statements which could be categorized as follows:
<table>
<thead>
<tr>
<th>No.</th>
<th>Traits</th>
<th>Rated as</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mentally healthy, strong, capable</td>
<td>Mentally competent</td>
</tr>
<tr>
<td>2</td>
<td>Emotionally tensed, upset, angry</td>
<td>Emotional immaturity</td>
</tr>
<tr>
<td>3</td>
<td>Anxiety, depression, apathy, common abnormality</td>
<td>Neurotic (emotional incompetence)</td>
</tr>
<tr>
<td>4</td>
<td>Severe disability, severe abnormality, mental disorder, disillusion</td>
<td>Psychotic (behavioural ineffectiveness)</td>
</tr>
<tr>
<td>5</td>
<td>Helplessness, loneliness, sadness</td>
<td>Depressed (emotional immaturity)</td>
</tr>
<tr>
<td>6</td>
<td>Non-expressive, non mixing, keeping aloof, withdrawn, shy</td>
<td>Introvert (Social incompetence)</td>
</tr>
<tr>
<td>7</td>
<td>Expressive, social, mixing nature, dashing</td>
<td>Extravert (social or behavioural competence)</td>
</tr>
<tr>
<td>8</td>
<td>Getting easily influenced, trapped up by others, carried away</td>
<td>Suggestible (behavioural inefficiency) (submissive)</td>
</tr>
<tr>
<td>9</td>
<td>Indecisiveness, differences of opinion</td>
<td>Mental conflict or incompetence</td>
</tr>
<tr>
<td>10</td>
<td>Differences or conflict of opinions or views between youngsters</td>
<td>Generation gap or behavioral incompetence</td>
</tr>
<tr>
<td>11</td>
<td>Sensitive, touchy, sentimental, feeling to cry</td>
<td>Emotional immaturity</td>
</tr>
<tr>
<td>12</td>
<td>Understanding others and others' views</td>
<td>Mental competency</td>
</tr>
<tr>
<td>13</td>
<td>Argumentative, disagreeing, differing or non-conformity</td>
<td>Inefficiency</td>
</tr>
<tr>
<td>14</td>
<td>Day-dreaming, imagining too much, thinking too highly of oneself</td>
<td>Superiority complex</td>
</tr>
</tbody>
</table>
15 Low self-esteem, low self-concept, afraid of doing or undertaking anything.

16 Afraid of social criticism, maladjustment

17 Stable in thinking and behaving

18 Behaving thoughtfully and with concentration

19 Getting useful to others, helping hand to others

20 Feeling not offended if somebody finds faults

21 Loosing interest or hope in life, getting frustrated

22 Positive attitude to go ahead, accepting reality

All other characteristics or traits manifested in the statements or items of the test or questionnaire have been similarly rated as either emotional or mental or behavioural efficiency vs. inefficiency or maturity vs. immaturity.

This questionnaire of 100 items was given to fifteen leading experts (refer Appendix-II), psychiatrists, psychologists, therapists, professors, in the field of psychology, who were invited from different institutions of Ahmedabad, in order to judge or rate the characteristics
or traits as emotional, mental or behavioural competency or any combination type of the three. This was done as a part of pilot study.

The expert judges followed the special rating or grading system of each of the items. They graded the items from zero to five i.e. score zero to irrelevant or rejected questions; score 1 to 5 to those items showing degree of acceptance or importance of the items from lowest to highest. The questions that scored zero or were considered irrelevant or rejected could be reframed or corrected or changed or added if any specific trait of competency level is not included, as per their opinion or choice if necessary. Thus, out of hundred items in all 45 items were selected in each form on the basis of the means of the scores of rating zero to five by the judges. In other words, in the final form of 45 items of adolescent form and in the final form of 45 items of adult form, some items that were selected belonged completely to adolescent form, some to adult form and some to both and were scored on the basis of the mean of the scores rounded off to the next score i.e. a very specific system of rating or grading was worked out on the basis of means of scores on each item judged by the 15 experts. (refer Appendix-II for the list of experts, Appendix-IV for its rating and means done)

The pilot study was undertaken also to categorize the items as belonging to adult form or adolescent form of the questionnaire for each of the hundred items. These judges rated whether the item
pertains to adolescent or adult or both and accordingly the items were included in any one form or both forms depending on the majority of opinions given by the experts. (Refer Appendix-IV)

The author has made a very genuine effort to collect the test details by conducting such a pilot study or short research by approaching these experts personally through appointments and inviting them for selection of items. It undertook lot of time, energy and money to visit them in person, get their consent and opinion to fill up such a questionnaire willingly and taking genuine interest in my study. Without their help it would have been quite impossible to take help of a newly constructed test specially designed for knowing the mental, emotional and behavioural competency level, that could be of great help to researchers in future too.

Later on according to the rating done, the key to scoring was prepared. Finally, to check the responses or understand the reliability and validity of the tests, these tests were administered to both adult and adolescents (the respective forms) as a pilot study. The final forms included mostly the statements of earlier work of Dr. A.S. Patel (2003) with a few changes in working, after arranging at its reliability (test, re-test) as well as validity (item-analysis or construct validity), as usual computed on the basis of responses of a new additional sample of fifty adolescents and fifty adults. EMB test (Adolescent form) had reliability =
0.74 and validity = 0.61 and EMB test (Adult form) had reliability = 0.79 and validity of 0.65, no doubt, as adapted by the present author in the pilot study.

It was observed that the items or statements in the final tests after the pilot study were almost same or similar to those in the earlier scale of Dr. A.S. Patel, some were adapted to the need of meaning (a sort of construct validity), some new items were added and some were rejected. The final test consisted of two forms-

1) Adult Form (here, in case of mothers) and

2) Adolescent Form

(Both forms given along with scoring key in Appendix V)
To be specific as the title of the work reads, the problem under study has been- "A study on impact of working and non-working mothers on emotional and mental competency of their adolescent children"

As the problem implies, the investigation has been undertaken with the main purpose to find out whether the work status of mothers influences the emotional and mental competency or behavioural effectiveness or efficiency of their adolescent youngsters. Along with this main aim of study, the variables of educational level and caste associated with the sample (mothers) enabled the investigator to study also the effect of their education and also caste (mother or child being of same caste) on adolescents' emotional and mental competency or otherwise of both mothers as well as of their youngsters. Additionally, one can also examine whether the emotional competency of mothers, whether working or non-working, can be related to that of their adolescent children. In other words, the study aims to find out:-
1) How far work status of mothers affects emotional and mental competency of their adolescents.

2) How far the educational level of mothers influences emotional and mental competency of their adolescents.

3) How far caste influences emotional and mental competency of adolescents (or even of mothers if possible)

4) How far level of emotional and mental competency of mothers is related to that of their children at adolescent level.
To be very specific, the study attempts to investigate:-

1) Whether work status (A) of working and non-working mothers influences emotional and mental competency of their adolescents.

2) Whether educational level (B) of working and non-working mothers affects emotional and mental competency of their adolescent children. (It may be noted that work status and education level may have been confounded in this study in some way)

3) Whether caste (C) determines emotional and mental competency of adolescent children (and also of their working or non working mothers)

4) Whether level of emotional and mental competency (D) of working and non-working mothers affects that of their adolescent children.
In order to study the above specific objectives, the following hypotheses have been formulated for testing and verification. Two types of hypotheses are as under for each of the independent variables.

(A) Work status of mothers: Working and Non-working

a) Null Hypothesis – There is no difference between working and non-working mothers in the impact on emotional and mental competency of their adolescents.

b) Alternate Hypothesis – There is a significant difference between working and non-working mothers in the impact on emotional and mental competency of their adolescents.

(B) Educational level of mothers: College level and School level

a) Null hypothesis – There is no difference between mothers of college and school education level in
their impact on emotional and mental competency of their adolescents.

b) Alternate hypothesis – There is a significant difference between mothers of college and school education level in their impact on emotional and mental competency of their adolescents.

C) Caste of Mothers: General and Reserved (Backward) caste

a) Null hypothesis – There is no difference between mothers of general and reserved caste in their impact on emotional and mental competency of their adolescents.

b) Alternate hypothesis – There is a significant difference between mothers of general and reserved caste in its impact on emotional and mental competency of their adolescents.
(D) Emotional and mental competency of working and non-working mothers - High level and Low level

a) Null hypothesis – There is no difference between mothers of high and low levels of emotional and mental competency in their impact on emotional and mental competency of their adolescents.

b) Alternate hypothesis – There is a significant difference between mothers of high and low levels of emotional and mental competency in their impact on emotional and mental competency of their adolescents.
3.6 VARIABLES UNDER STUDY

3.6.1 Independent Variables (determining the sample characteristics)

(A) Work status of mothers
i. Working mothers
ii. Non-working mothers

(B) Education level of mothers
i. College education
ii. School education

(C) Caste of mothers (or of adolescents being the same)
i. General or upper (Brahmins, Banias, Patidars)
ii. Reserved or Backward (economically backward, scheduled castes, scheduled tribes)

(D) Emotional and mental competency of mothers
i. High level of maturity
ii. Low level of maturity
3.6.2 Dependent Variable

Emotional and mental competency of adolescent youngsters to be measured in terms of scores on Emotional and Mental Competency Scale for adolescents, as dependent variable associated with adolescents.

It should be noted that emotional and mental competency of mothers is tested on Emotional and Mental Competency Scale for Adults and then scores are categorized into high matured and low matured mothers ($D_1$ and $D_2$) levels of independent variable, associated with mothers, as mentioned above.

3.6.3 Controlled Variables

Age of mothers (40-50 yrs), sex of workers (only mothers), culture, community, area of residence (only urban) etc. that are likely to affect the emotional and mental competency of adolescents or mothers, will remain almost of the same level (matched).
## Experimental Design

### Work Status of Mothers

<table>
<thead>
<tr>
<th>Caste of Mothers</th>
<th>Emotional Maturity of Mothers</th>
<th>A1 (Working)</th>
<th>A2 (Non working)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B1 College</td>
<td>B2 School</td>
<td>B1 College</td>
</tr>
<tr>
<td>C1 General Caste</td>
<td>D1 High Maturity</td>
<td>40 M</td>
<td>40 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20+20) (B + G)</td>
<td>(20+20) (B + G)</td>
</tr>
<tr>
<td></td>
<td>D2 Low Maturity</td>
<td>40 M</td>
<td>40 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20+20) (B + G)</td>
<td>(20+20) (B + G)</td>
</tr>
<tr>
<td>C2 Reserved Caste</td>
<td>D1 High Maturity</td>
<td>40 M</td>
<td>40 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20+20) (B + G)</td>
<td>(20+20) (B + G)</td>
</tr>
<tr>
<td></td>
<td>D2 Low Maturity</td>
<td>40 M</td>
<td>40 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20+20) (B + G)</td>
<td>(20+20) (B + G)</td>
</tr>
</tbody>
</table>

n = 160 160 160 160

Grand Total
N=640
This experimental factorial design (2 x 2 x 2 x 2) contains 16 cells or sub groups, each consisting of 40 subjects (n) consisting of both boys and girls together, i.e. in all 640 subjects (N) in the sample of adolescents. These 40 subjects (adolescents) in each of the 16 sub groups were administered on Emotional and Mental Competency Scale (for adolescents), and their scores formed the dependent variable or measure under study.
The sample for the study as shown in the above experimental design (2 x 2 x 2 x 2) is made up of:

(A) Two levels of Work Status of mothers
   1. A₁ - Working mothers
   2. A₂ - Non-working mothers

(B) Two levels of Education of mothers
   1. B₁ - College education
   2. B₂ - School education

(C) Two levels of Caste of mothers (or of adolescent being the same)
   1. C₁ - General or Upper (Brahmins, Banias, Patidars)
   2. C₂ - Reserved or Backward (economically backward, scheduled castes, scheduled tribes)

(D) Two levels of Emotional and Mental Competency of mothers
   1. D₁ - High level of maturity
   2. D₂ - Low level of maturity
The scores of mothers on this scale were classified into high and low categories of mothers in terms of maturity (cut off score at 170).

- Score 170 and above – high maturity
- Score below 170 – low maturity

These four main variables formed independent variables of mothers. It should be noted that the mothers as sampled forming independent variable were administered the test of Emotional and Mental Competency Scale (Adult Form). The scoring done from 5 to 1 and 1 to 5 on the responses of mothers was utilized to categorize mothers (independent variable) as falling under high level of maturity or low level of maturity on the basis of cut off score (170).
The following tools were used to study the problem:-

3.9.1 Emotional, Mental and Behavioural Competency Scale  
(Adult Form)

3.9.2 Emotional, Mental and Behavioural Competency Scale  
(Adolescent Form)

Both these tests were constructed and standardized by Dr. Patel (2003) with reliability = 0.79 and validity = 0.65 for adult scale and reliability = 0.74 and validity = 0.61 for adolescent scale, no doubt adapted by the present author as described in her pilot study.

3.9.3 Information sheet to collect information on the particulars of subjects used such as, name or some identity label to keep mothers and their adolescents answer sheets together for later analysis and also their age, sex, profession or education, caste, etc. as needed for the study.
3.10 PROCEDURE OF WORK

(For collection of data)

All subjects – mothers aged 40-50 years as well as their adolescent sons and daughters (aged 12-18 yrs) studying in Std. VIII to Std. XII classes of high schools as available were administered the emotional and mental competency scale respectively (Adult and Adolescent Forms) individually or in group wherever available. Usually the adolescents (school students) were contacted first through the Principals or class teachers for co-operation and assistants to collect adolescent subjects from classes available and administered Emotional and Mental Competency Scale (Adolescent form). Later on, their mothers were contacted at home through their adolescent children for the administration of Emotional and Mental Competency Scale (Adult Form, mothers in this case). Rapport and confidence were established with them before administering the scale. They were properly instructed and explained how to respond to the scale. The answer sheets were collected at the end. For sufficient number, all these subjects were contacted whenever and wherever needed.
The responses of subjects (mothers and adolescents) were scored as per the key (Appendix V) and their scores were statistically analyzed by adequate statistical tests in order to study the main and interaction effects (DV = emotional and mental competency of adolescents) of the four independent variables (mothers) by ANOVA and/or ANCOVA or F test and subsequently by LSD test to study the simple effects of the variables. Additionally the co relational procedure of Karl Pearson's Product Moment Correlation ['r'] was attempted to find correlation between emotional and mental competency of mothers and that of their adolescent children.

All these results of statistical analysis were presented and discussed methodically in the main body of the thesis in the following chapters under different heads, along with adequate graphs and tables, including references and necessary appendices. The investigator for the sake of knowledge manually did the pilot work of statistical analysis and later on all statistical work was fully carried out with the help of computer as needed.