CHAPTER IV

DESIGN AND METHODOLOGY

Increase in the number of female sterilizations has resulted in an increased interest in its complications and consequences, both immediate as well as long term. The present study attempts to investigate the role of personality and socio-cultural variables in the development of psycho-somatic complaints after tubectomy.

DESIGN:

A pre-post quasi design, with a non-equivalent comparable group was employed to investigate the present problem. Subjects of the experimental group (E) (the women who opted for tubectomy operation) were to be tested before the operation and re-tested six month after the operation. The comparable group (C) subjects (the women who opted for non-permanent contraceptive methods) were to be tested and retested at an interval of six months.
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<td>A portion of the semi-structured interview schedule dealing with after effects of tubectomy, Hypochondriasis Scale of MMPI, Sinha's Comprehensive Anxiety Test, Eysenick's Maudsley Personality inventory to be administered.</td>
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SAMPLE

The sample for the present investigation was taken from the metropolitan city of Delhi and villages of Haryana. The sample was representative of a metropolitan/rural population of different socio-economic status, in the age group of 21 to 42 years. For the experimental group, one hundred women, mean age 30.5, with mean number of children 3.4, under-going tubal-legation at different hospitals in Delhi and surrounding areas of Haryana.
during a period of two years i.e. January 1989 to January 1991, were selected for the present study. For the comparable group, 50 subjects, mean age 30.3 years with mean number of children 2.4, using non-permanent methods of contraception were selected.

The investigator equated both the groups with regard to their cultural background, i.e. 50% of the subjects selected in each group were from rural background (i.e. areas of Haryana) and 50% from metropolitan city (i.e. Delhi). Although an attempt was made to equate the groups on the socio-demographic variables (i.e. literacy, age, work status, socio-economic status) the investigator found it impossible to obtain equal number of subjects for each sub category.

TOOLS

For selecting appropriate tools, a pilot study was conducted in which 20 subjects who opted for tubectomy group (E) and ten subjects who had opted for non-permanent method (C), were taken. Initially JMPI (Jodhpur Multiphasic Personality Inventory) and CMI (Cornell Medical Index) were selected as these two tests could provide information regarding the subject's health, anxiety, personality and a measure of the psychosomatic complain could be obtained in term of the hypochondriasis score.
When these two tests were administered to the E and C group subjects during pilot study the investigator found that the subjects specially the women who were to undergo the tubectomy operation, were not very co-operative and they were reluctant to answer such a lengthy questionnaire (887 question in J.MPI only). Further, they did not consider the specific questions regarding their organs and physiological systems as relevant. Infact some of them refused to give answers saying that they had come for tubectomy operation not to have their eyes, ear etc. checked up.

In view of these difficulties, shorter tests which could measure anxiety and personality were selected. For anxiety Sinha’s comprehensive anxiety test (SCAT) was taken. The investigator decided to limit the personality measure only to neurotic/stability and extroversion/introversion demensions. For this, Eysenck’s Maudsley Personality Inventory (MPI) was selected. Since an independent test which could measure hypochondriasis could not be obtained, the hypochondriasis scale (HS) of MMPI was taken. This is a very small scale with 33 questions pertaining to the abnormal concern of the individual regarding his/her bodily functions.
These three scales were again tried out on small group (E=10, C=5). The tests were presented in the following sequence MPI, SCAT and HS. It was felt that HS should precede the SCAT because of the initial resistance of the subject to personal questions, as in the beginning the subjects felt more relaxed while discussing the problems related with health, therefore in the final study the order of presentation was changed.

During pilot study religion was also included as one of the socio-cultural variable but the investigator found that tubectomoy was not popular among Muslims and Christian did not live in the area under study. The population there was predominantly Hindu. So, the investigator dropped religion from the main study.

Pilot study also revealed that self administration of the tests in 50% of the cases was not possible because of lack of education. The subjects could not read or write, therefore in the final study the material was verbally presented to the subjects and their responses were noted down by the investigator.

Thus for the present investigation following tools were choosen.

I. Semi-Structured Interview Schedule:

It contained information about age, literacy level, locality, type of family, religion, caste, family income, number of children,
motivational factors, menstrual history, sexual and marital relations, physical and mental symptoms present at the time of operation i.e. pre-testing stage. In case of C group also information was collected on all points. At the time of follow up i.e. six months after initial testing, only items dealing with sexual and marital relation, change in menstrual pattern, development of new physical and mental symptoms were included (Appendix A-I).

II. Hypochondriasis Scale (HS) of MMPI

Hypochondriasis Scale (HS) is one of the nine scales of the Minnesota multiphasic personality inventory. MMPI is designed to provide an objective assessment of some of the major personality characteristics that effect personal and social adjustment. Nine scales were originally developed for clinical use of the inventory and were named for the abnormal condition on which their construction was based. These scales are now commonly referred to by their abbreviations - HS (Hypochondriasis), D (depression), Hy (Hysteria), Pd (Psycho-pathic deviates), Pt (Psychasthenia), Sc (Schizophrenia) and Ma (Hypomania) or by their code numbers to avoid possible misleading connotations. The complete scale
contains 550 statements covering a wide range of subject matter from physical condition to the moral and social attitudes of the individual being tested.

Hypochondriasis scale which has been used in the present investigation, is the first scale of MMPI. It is a measure of the amount of abnormal concern of an individual about bodily functions. It is an improved revision of the original hypochondriasis scale H-CH. It contains 33 items, and subjects are required to respond to each item in terms of 'True', 'False' or 'can not say'. The scale can be applied to subjects above 16 years. The subjects are to be advised to express their current feeling and reactions while answering the test.

While scoring, every item not answered either true or false is to be eliminated. Raw scores are calculated with the help of scoring key given in Appendix : B of the manual. Then raw scores are converted into t scores with the help of Table - 8 of revised manual (1967) of MMPI by Hathway and Mekenley. Common organic sickness do not raise a person's score as the scale detects a difference between the originally sick person and a hypochondriac.
As a large number of subjects selected for the present investigation were illiterate, and did not know English, therefore, to get an accurate response, a Hindi translation of the scale was prepared. The English scale was translated into Hindi and the translation was sent to 10 judges (experts in the area of medicine, psychology and language) with the request to examine each item in light of English scale and language difficulty level. After receiving comments from the judges some items were again modified as suggested by the judges. The scale was cyclostyled and tested on a sample of 50 subjects. The purpose was only to find out whether these items could be easily understood by the subjects. The pre-testing experience did not necessitate any change or modifications in any of the 33 items. After one week the English version was tried out on the same sample and the validity co-efficient was then worked out. The obtained validity co-efficient was .92. For determining the reliability of the Hindi translation, it was readministered to the same sample after a gap of 3 months. The obtained reliability co-efficient was .89. The scale was finally cyclostyled for use in the present investigation. The Hindi and English versions of the HS tests are shown in Appendix A-II (ab).
III. Sinha's Comprehensive Anxiety Test (SCAT):—

To measure the anxiety of the subjects, Comprehensive Anxiety test by Sinha and Sinha was used (Appendix A-III).

It is an easily administered and scored test. There is no time limit for completing the test, but usually an individual takes 15-20 minutes in completing the test form.

This test is designed to study the individual's reaction to different situations so there is no right or wrong response to any statement. Each item has to be given either a positive or negative response i.e yes or No, and no statement is to be left out. This test can be administered individually or to a group.

The inventory can be scored accurately by hand and no scoring key or stencil is required. For any response indicated as 'Yes' the testee is awarded a score of one, and zero for 'NO'. The sum of all positive or yes responses would be the total anxiety score of the individual.

The individual may be classified into five categories on the basis of scores obtained on the inventory. An individual with an extremely high score or above the 75th percentile may be regarded as an hyper-anxious individual. His personality is complicated and he may be in need of counselling and
psycho-therapy. The extremely low score below the 25th percentile indicates that the person are under-motivated and sluggish. The middle group represents normal individuals.

IV. Hindi Version of Eysenck’s Maudsley Personality Inventory (MPI):

To measure the neurotic / stability and introversion / extroversion dimensions of the subjects, the Hindi version of M.P.I., standardized in India by Jalota and Kapoor (1975) was used (Appendix A-IV).

It is a brief, standardized easy to administer and score inventory which has been designed to assess neurotic/stability and introversion/extroversion dimensions of personality. MPI consists of 48 items distributed in an equal number between two personality dimension of ‘N’ and ‘E’. Each item has three response alternatives ‘NO’, ‘?’, and ‘yes’ scored as 0, 1, 2. from lower to higher level of ‘N’ and from lower to higher level of ‘E’. A single item contributes to only one of the two dimension. The maximum number of scores on either ‘N’ or ‘E’ is 48. Item from serial number 1 to 12 constitutes make the short scale and all the 48 items constitute the long scale. Each of these item is to be answered by putting a tick mark on one of the three boxes.
This test can be administered individually or in a group situation. Though there is no time limit to complete the test, usually the long scale takes about 15 to 20 minutes and short-scale about 3 to 5 minutes.

To establish the validity the author of Indian version administered the full scale to 150 post graduate students of Chandigarh. The 'N' and 'E' scores of the Hindi version have been reported to correspond with the English norms. The correlation score between 'N' and 'E' for the long scale was 0.223 which is in good agreement with the English norms. The reliability co-efficients obtained by comparing the first half with the second half were .567 and .358 for the N and E dimensions, respectively. When corrected for full length these figures rise to .71 and .42 respectively.

METHODOLOGY

Descriptive survey method was employed as a method for collecting information in the present investigation as in this method inventories and questionnaires have been used which deals not only with overt behaviour but also with the person's own feeling about himself and her environment, resulting from introspection.
While conducting the final study the actual purpose of the study was not spelled out to the subject. The subjects were told that the purpose of the study was to look into some physical problem related to tubectomy operation. They were also assured that their response would not be disclosed to anyone and would be kept strictly confidential. Some of the subjects who had not co-operated with the investigator inspite of all efforts were not included in the study. To get an effective sample of 100 subjects for the experimental group investigator had to contact roughly 150 subjects. The order of test was as follows - Semi-structured interview schedule, Hypochondriasis Scale, Anxiety Test, Maudsley personality inventory.

Each case presented for tubectomy operation was tested individually in a single session lasting for about 40 to 50 minutes. Group testing was neither possible nor considered advisable under present situation. A good rapport had to be established to minimise psychological resistance and to induce honest answer, thereby reducing the likelihood of distortion. After taking care of the initial arrangements the subjects was given the following instruction -:
"I am going to ask you some questions regarding your background, health, and physical life. Kindly try to be as honest and frank as possible. Try to express your current feelings and reactions while answering the questions".

After getting a detailed verbatim record of the subjects regarding personal background, menstrual status, sexual and marital relation, three tests were presented one by one. Specific instructions printed on the tests (Appendix II, III, IV) were read out to the subject along with the presentation of each test booklet. On completion of one test another test-booklet was given to the subject and same procedure was followed for all the scales. Proper care was taken to avoid all possible distraction during testing.

All the subjects were again followed up six month after the tubal legation. Relevant portion of interview schedule was again administered and information regarding change in menstrual pattern, sexual relation, marital relation and development of new physical and mental symptoms was sought. All the three tests were again administered.

A comparable group of 50 women using non-permanent method of contraception was also contacted. All the three test along with semi-structured interview schedule were administered to all
the subjects of this group during face to face contact and again followed up after six month. Scoring was done with the help of the scoring key provided by the authors of the tests.

DIFFICULTIES FACED DURING DATA COLLECTION:

A field research of present type, dealing with a highly personal and delicate matter like sterilization, is bound to present some difficulties. In the present research also the investigator faced a number of problems while dealing with the subjects. It was mainly due to the traditional inhibition of subjects in discussing these sensitive issues. However, the investigator tried her best to overcome these difficulties by maintaining an informal and sympathetic manner and good rapport-formation. Despite all this, some of the difficulties of the following nature could not be eliminated.

Most of the subjects normally hesitated in discussing these matters and therefore obtaining free and frank responses was the chief hazard of the present study. Some of the subjects intentionally did not express themselves because of the suspicion and distrust of an outsider (the investigator) while others could not express themselves owing to the lack of education.
The greatest difficulty was in getting the women alone for the interview. As already mentioned the investigator selected a time when normally the male members of the family were at their work. This however was not the only problem. The interruption and suspicion of the other elderly ladies at home and in neighbourhood and their interference restricted the subjects from giving free and frank responses. Their comments and inquiry sometimes put the investigator in an embarrassing situation.

Subjects generally found the interview too long and time consuming and also resented the personal and intimate questions. They usually remarked, "why are you asking such silly questions, instead give us some medicines for curing our physical ailments". They also started complaining about the unsympathetic and rude behaviour of the doctors or health-visitor and lack of follow up services. Thus, the data has been collected under rather difficult conditions. We can only say that these difficulties are faced by social scientists in India investigating 'delicate' personal matter.

With this background we may now pass on to the next chapter dealing with the Results and Discussion.