CHAPTER-III
METHODOLOGY

- Problem
- Objectives
- Hypotheses
- Sample
- Variables
- Research Design
- Research Tools

Procedure

- Pilot Study
- Main Study

Statistical Analysis

This chapter deals with problem, objectives, hypotheses, sampling details, the design, tests employed for the gathering data, procedure for conducting the study and the statistical methods to be used for analysis.

3.1 Problem

“Effects of Rogerian Group Counselling on Mental health, Adjustment and Self-concept of Senior Citizens in Thailand”
3.2 Objectives

The objectives of the present study are mentioned below: -

• To study the mental health of senior citizens of Thailand.

• To assess the adjustment of the senior citizens of Thailand.

• To examine the self-concept of senior citizens of Thailand.

• To study the gender differences in mental health of senior citizens.

• To study and compare the male and female senior citizen on their self-concept.

• To examine the effect of gender on adjustment level of senior citizens.

• To study the effect of group counselling based on Roger’s theory on the mental health of senior citizens.

• To examine the efficacy of Rogerian group counselling on self-concept of the senior citizens.

• To study the significance of Rogerian group counselling on adjustment level of the senior citizens.

• To study the correlation between following variables-
  (1) Mental health and Adjustment
  (2) Mental health and Self-concept
  (3) Adjustment and Self-concept
3.3 Hypotheses

On the basis of previous research studies following hypotheses have been laid down:-

a) There will be no difference in mental health of senior citizens in relation to their gender.

b) Male senior citizens have better self-concept than female senior citizens.

c) There will be no difference between male and female senior citizens in their level of adjustment.”

d) Group counselling program based on Roger’s theory helps in developing good mental health in senior citizens in Thailand.

e) Significant positive changes will be brought in the self-concept of senior citizens in Thailand through Rogerian group counselling.

f) Rogerian group counselling will have positive effect on adjustment of the senior citizens in Thailand.

g) Senior citizens having sound mental health will be possessed positive self-concept.

h) Senior citizens having sound mental health will be found with highly adjustable criteria in their personality.

i) Good adjustment is associated with positive self-concept among senior citizens of Thailand.
Looking to the objectives of this research the present investigation was conducted under three phases in order to make this study simpler and easily understandable, therefore each methodology detail described under three phases.

• **Phase 1**

This phase of methodology concern with the gender effect on Self-concept, Mental health and Adjustment of subjects.

• **Phase 2**

Significance of Rogerian group counselling to foster senior citizens psyche (Self-concept, Mental health and Adjustment) are considered in this phase.

• **Phase 3**

This phase is intended to find out the correlation between

(1) Mental health and Adjustment

(2) Mental health and Self-concept

(3) Adjustment and Self-concept

**3.4 Phase 1**

This phase was intended to study the effect of gender on mental health, adjustment and self-concept of senior citizens of Thailand.
Methodology

Sample

Sample of the study consisted of total 200 senior citizens of Thailand. Whole sample was made with equal number of male and female. Their age range was 60+ years.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>N = 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td>N = 100</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>N = 200</td>
</tr>
</tbody>
</table>

Variables

The variables in this part will be treated as follows:-

Independent variable

- Gender
  - (1) Male
  - (2) Female

Dependent variables

- Self-concept
- Mental health
- Adjustment
Research Design
In this phase two group randomized design was used for each considered dependent variable namely- mental health, adjustment and self-concept.

Table 3.2
Two Group Randomized Design

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

Research Tools
The following tools were used in the present research work.

Table 3.3
List of Tests

<table>
<thead>
<tr>
<th>Aspects Measured</th>
<th>Name of the Test</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>Mental health check list</td>
<td>P.Kumar (1991)</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Old Age Adjustment Inventory (SJOAI)</td>
<td>Shamshad Hussain and Jasbir Kaur (1995)</td>
</tr>
<tr>
<td>Self-concept</td>
<td>Self-concept Scale</td>
<td>Mukta Rani Rastogi(1979)</td>
</tr>
</tbody>
</table>

Mental health Checklist (MHC)
This check list was developed and standardized by Pramod Kumar. It consists of 11 items- 6 mental and 5 somatic, presented in a four point rating format.
Interpreting mental health as a psychic condition identified by the absence of
disabling and debilitating symptoms, both mental and somatic in the person, 5 teachers of psychology were asked to list all such symptoms the presence of which according to their understanding showed poor mental health. Following this, a list of 21 such symptoms was prepared. This list of symptoms was then submitted to five plastic zing clinical psychologists for their comments and an observation regarding the relevance of those symptoms as far as the study of mental health was concerned. Finally, a list of 16 such symptoms showing complete agreement amongst the judges was selected to form the mental health Check-List. This Mental health Check-List (MHC) consists of 11 items -6 mental and 5 somatic, presented in a 4 point rating format.

The spilt-half reliability, correlating the odd-even items (applying the Spearman-Brown formula for doubling the test length), has been found to be 0.70 (N=30) with an index of reliability of 0.83 (Garrett, 1961). The test-retest reliability has also been studied. It has been found to be 0.65 (N=30) with an index of reliability of 0.81, the retest was given with a time interval of two weeks. The r-values of 0.70 and 0.65, respectively, have been found to be significant at 0.01 level of confidence, showing that the test is reliable in terms of its both internal consistency and stability of scores. The face validity of the MHC appears to be fairly high as items were prepared by asking teachers of psychology to list all such symptoms, which, according to them, showed poor mental health. The content validity was adequately assured as only those symptoms, which showed 100 percent agreement
amongst the judges regarding their relevance to the study of mental health, were selected. Of these, only those items which gave a fairly high discrimination value i.e. .30 or above, following item-analysis were finally included in the checklist.

A numerical value of 1,2,3 and 4 is assigned to the 4 -response categories, i.e. for ‘rarely’, ‘at times’, ‘often’ and ‘always’, respectively. The total score varies from 11 to 44, showing the highest to the lowest mental health status of the person. Higher the score showing the poor mental health.

**Self-concept Scale**

This scale was developed and standardized by Dr. Mukta Rani Rastogi. Ten constructs of self-concept are included in this scale. They are:-

1) Health and sex appropriateness.

2) Abilities

3) Self-Confidence.

4) Self-Acceptance.

5) Worthiness.

6) Present, Past and Future

7) Beliefs and convictions

8) Feelings of shame and guilt.
9) Sociability

10) Emotional maturity

This scale consists of total 51 items related to 10 constructs of self-concept covering the perceptual, conceptual and attitudinal elements of self-concept. The ten constructs are health and vigour, ability, self-confidence, self-acceptance, worthiness, present, past and future, belief and conviction, feeling of shame and guilt, sociability and emotional maturity. These items are positive and negative in their nature. Five alternative responses were given for each item namely strongly agree, Agree, Undecided, Disagree and strongly disagree. Positive items were scored five to one and negative items are scored one to five for the same response alternatives.

This scale can be self-administrative in nature. It can be administrated individually as well as to a group. There is no time limit but the entire item can be completed in around 30 minutes.

The reliability of this scale is determined by using split half method and found to be 0.87 which is indicative of highly reliability. Validity criteria of this scale is based on content validity

Shamshad-Jasbir Old Age Adjustment Inventory (SJOAI), 1995

This inventory was constructed by Shamshad Hussain and Jasbir Kaur was used to assess adjustment and its dimensions. This Inventory consists of 125 items with various dimensions of adjustments namely Health, Home, Social, Mental, Emotional and Financial. The test has the reliability coefficient
around 0.80 or higher. This adjustment inventory was also validated against self-concept, ego-strength and anxiety by comparing the mean score of the high and the low adjustment groups (dichotomised on the basis of median) on three variables. The responses were scored with the help of scoring key. The scores ranging from 0-1, where 0 meant maladjustment. The sum of scores measured overall scores. Percentile norms are available sex wise and professional status wise.

**Procedure**

(1) **Pilot Study**

The Pilot study was conducted in order to decide the appropriateness of tests and music intervention program used and sample in conducting the final study. It was conducted on 10 male and female senior citizens. On the basis of the pilot study few modifications were made, which are as under-

- Deciding the type of sampling for ease in further analysis.

- The pilot study also gave direction about the coding method and the statistical procedures that could be used for final study.

(2) **Main Study**

After constitute the sample according to the objective the mental health check list, Shamshad-Jasbir Old Age Adjustment Inventory (SJOAI), and Self-concept Scale measure were administrated on selected sample. Before
administrating all the tests on sample it was assured that they were properly acknowledged the instructions belong to each test.

**Statistical Analysis**

After obtaining the raw score on all considered variables they were analysed by appropriate statistical techniques. Data were collected in best possible conditions, so that reliability of this study can be considered.

The data were analyzed as follows;

The mean (with graphical representation) and standard deviation for gender (Male & Female) on SJOAI, Mental Health Check List (MHC) and Self-concept questionnaire were analyzed. t and F tests were used to see the effect of Gender on mental health, adjustment and self-concept of Thailand’s senior citizens.

3.5 Phase 2

The phase 2 of this research study was to find out the significance of group counselling based on Rogerian theory as an intervention to foster Self-concept, Mental health and Adjustment among Thailand senior citizens.

**Methodology**

**Sample**

Total sample of 60 senior citizens was selected through purposive sampling technique as before the subject were assigned in sample they were administrated on mental health check list, Jasbir Old Age Adjustment
Inventory (SJOAI), and self-concept scale. To protect the gender biasness equal number of male and female were taken in each group. For this phase the inclusion criteria of sample were-

- Higher Adjustment problems
- Poor mental health and
- Negative self-concept
- Interested to take part in counselling.

**Variables**

The variables in this part will be treated as follows:-

**Independent Variable**

- Rogerian group Counselling

**Dependent Variables**

- Self-concept
- Mental health
- Adjustment

**Research Design**

In this phase Pre-Post two group design was used for each dependent variable namely mental health, adjustment and self-concept. The intervening variable will be group counselling based on Roger’s theory.
Table 3.4
Pre-post Two Group Design

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Pre-Test Score</th>
<th>Intervention (Rogerian Group counselling)</th>
<th>Post-Test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td>Control Group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Experimental group</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Mental health</td>
<td>Control Group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Experimental group</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Control Group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Experimental group</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
</tbody>
</table>

Research Tools

Rogerian Group Counselling

The group counselling comprised following phases:

- In the first, the program focused on building rapport.
• The group counselling manuals were designed to enhance the self-concept, mental health and level of adjustment of the participants and consisted of topics such as -skills for effective communication, Problem solving techniques, self awareness, self-esteem, self-worth, body image, self-acceptance and being yourself.

• In the last phase, they accepted their changed status that was feel less stress and support themselves.

This program was developed with the help of researcher and counselors who worked with Rogerian group counselling.

Except this Rogerian group counselling all measures (listed below) employed in this part were the same used in part I i.e.

• Shamshad- Jasbir Old Age Adjustment Inventory (SJOAI).

• Mental health Check list.

• Self-concept Scale.

**Procedure**

(1) **Pilot Study**

The Pilot study was conducted in order to decide the appropriateness of tests and counselling intervention program used and sample in conducting the final study. It was conducted on 10 male and female senior citizens with
inclusion criteria, from Thailand. On the basis of the pilot study few modifications were made, which are as under-

- Modifying the counselling schedule and session( Increased the given time and frequency to the subject)
- Deciding and conformed the inclusion criteria for sample.
- The pilot study also gave direction about the coding method and the statistical procedures that could be used for final study

(2) Main study
This part of the investigation concerned with the objective that addressed the group counselling and its role towards the area of elders’ mental health, self-concept and adjustment.
During the study period 90 senior citizens were screened, of whom 78 (40 male and 38 female) were eligible to participate in the study as per inclusion criteria. From this 78 subjects, 30 ( 15 Male & 15 female ) were randomised and assigned in experimental group( participated in group counselling) and 30 ( 15 Male & 15 Female) were assigned to control group (not participated in group counselling). Total 60 senior citizens were selected as a sample in this phase. Baseline Characteristics of those randomized to each arm (Group) are presented in below table. Those meeting study inclusion criteria completed baseline assessment and were then assigned in experimental and control group.
Table 3.5
Baseline characteristics of sample of phase II

<table>
<thead>
<tr>
<th>Baseline Characteristic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>60+ years</td>
</tr>
<tr>
<td>Gender</td>
<td>Male and Female</td>
</tr>
<tr>
<td>Married status</td>
<td>Married</td>
</tr>
<tr>
<td>Adjustment level</td>
<td>poor</td>
</tr>
<tr>
<td>Mental health</td>
<td>Poor</td>
</tr>
<tr>
<td>Self-concept</td>
<td>Low</td>
</tr>
</tbody>
</table>

Subjects of experimental group who were supposed to take part in group counselling attended two counselling sessions per week, for 10 weeks. Subjects of the control group were not taken part in group counselling sessions, and did not participate in any structured therapeutic programs during the study period. Control group was contacted each week by telephone to confirm they were not taking part in any other exercise activities. Control group subjects who were interested to take counselling were provided with a complementary program of counselling after their post test on measured criteria when the study was completed.

**Outcome measure**

Data on following (depicted in below table) outcome measures were collected from selected sample of both groups (Experimental & Control) in
pre and post test. All outcome measure were administrated, instructed and scored with same method and procedure used in part I.

**Table 3.6**

**List of Tests**

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</table>

**Data Collection procedure**

In the pre-test phase involved pre-administration of the instrument on all participants and the random assignment of selected participants into the treatment and control groups.

The intervention phase for the experimental group involved 10 weeks of group counselling. The group counselling manuals were designed to enhance the self-concept, mental health and level of adjustment of the participants and consisted of topics such as - skills for effective communication, Problem solving techniques, self awareness, self-esteem, self-worth, body image, self-acceptance and being yourself.

The control group was not being called for counselling. The post test phase involved post administration of the mental health check list, Old Age
Adjustment Inventory (SJOAI) and Self-concept scale on all participants, to collect data for further analysis.

**Statistical Analysis**

After obtaining the raw score on all considered variables they were analysed by appropriate statistical techniques. Data were collected in best possible conditions, so that reliability of this study can be considered.

**The data were analyzed as follows;**

The mean (with graphical representation) and standard deviation for experimental and control group in their pre and post test on Old Age Adjustment Inventory (SJOAI), Mental Health Check List (MHC) and on Self-concept questionnaire were analyzed.

t-test was used to see the significance on Rogerian Group Counselling on Mental health, Adjustment and Self-concept of Thailand’s senior citizen.

**3.6 Phase 3**

The phase 3 of this research study was to find out the correlation between Mental health & Self-concept, Mental health and Adjustment and Self-concept & Adjustment.

**Methodology**

**Sample**

Sample remains same of first phase here.
Variables
The various variables taken in this phase is as follows;

- Self-concept
- Mental health
- Adjustment

Research Design
Correlation group design was used in this phase.

Research Tools
All measure outcome (listed below) which were employed in phase I were used in this phase-

- Shamshad- Jasbir Old Age Adjustment Inventory (SJOAI).
- Mental health Check list.
- Self-concept Scale.

Procedure
(1) Pilot Study
The Pilot study was conducted in order to decide the appropriateness of tests and sample in conducting the final study. It was conducted on 10 male and female senior citizens of Thailand. On the basis of the pilot study few modifications were made, which are as under-
• Deciding the appropriateness of data which will be used.

• The pilot study also gave direction about the coding method and the statistical procedures that could be used for final study.

(2) Main study
The phase III of the main study was meant to find out the correlation between Mental health & Self-concept, Mental health & Adjustment and Self-concept & Adjustment. To attempt this objective, data on mental health check list, Old Age Adjustment Inventory (SJOAI), and Self-concept Scale measures which were obtained in first phase, were taken from first phase. Data were collected in best possible conditions, so that reliability of this study can be considered.

Statistical Analysis
After obtaining the raw score on all considered variables they were analysed by product moment correlation method.
Thus, In order to study the correlation between Mental health & Self-concept, Mental health & Adjustment and Self-concept & Adjustment, Product-moment, Correlation analysis was used in the present investigation.