CHAPTER III

METHOD

Method part is more important of any research which guides the researcher to take the right steps in completing the research endeavor. In the last chapter literature survey presented the important research studies in the related topics on life satisfaction, quality of life and Vipassana meditation. There are no integrated studies on impact of Vipassana meditation on life satisfaction and quality in college students. This chapter contains important methodological steps such as: (i) Research Objectives (ii) Hypotheses (iii) Design (iv) Participants (v) Instruments (vi) Procedure (vii) Statistical analyses.

OBJECTIVE

To study the effect of Vipassana meditation on life satisfaction and quality of life.

OPERATIONAL DEFINITIONS

1. Life satisfaction – an individual’s perceived response to interaction with his or her environment as measured by the students life satisfaction scale.

2. Quality of life - an individual’s response to interaction with his or her environment as measured by the quality of life scale.

VARIABLES

Independent Variable: Vipassana meditation intervention

Dependent Variables: Life satisfaction and quality of life
HYPOTHESES

Keeping in view the objectives of the study following directional hypotheses were formulated.

1. Vipassana meditation enhances life satisfaction.
   1.1 Vipassana meditation enhances the family domain of life satisfaction.
   1.2 Vipassana meditation enhances the friends’ domain of life satisfaction.
   1.3 Vipassana meditation enhances the school domain of life satisfaction.
   1.4 Vipassana meditation enhances the living environment domain of life satisfaction.
   1.5 Vipassana meditation enhances the self domain of life satisfaction.

2. Vipassana meditation improves quality of life.

RESEARCH DESIGN

Pre and Post experimental with control group design was used to find out the effect of Vipassana meditation on life satisfaction and quality of life. In this design the participants were assigned randomly in to two groups, namely experimental and control groups. The principle of randomization was used to assign the participants to groups to control all the possible influence of extraneous variables. Then experimental group was exposed to Vipassana meditation whereas the control group was given no exposure. The participants of experimental and control groups were tested on dependent variables before and after exposure.
FLOW CHART OF THE STUDY

Administered the scales (Life satisfaction and Quality of life) in pre-test situation to a large group of participants (300)

Selection of the participants for the study based on the criteria fixed i.e. low score on Life satisfaction and Quality of life scale (120)

Assigned randomly in two groups

Experimental Groups (N=60)  Control group (N=60)

Vipassana meditation given (intervention)  No intervention

Post-Test  Post-Test

Administered the same scales (Life satisfaction and Quality of life) immediately after the intervention for both the groups as posttest. Then compared the before and after scores to find out the effectiveness of interventions between the groups.
PARTICIPANTS

The participants were inmate students and registered for their bachelor’s degree from Mahajulalongkon Rajavidayalaya University, Thailand. A large group of participants were answered the questionnaires - life satisfaction and quality of life. Only those were selected for the study that has scored low level on life satisfaction and quality of life. The final participant group consists a total of 120 students. Then the participants were assigned randomly into two groups namely experimental and control group by using random number table. Further, the experimental group consists of 30 boys and 30 girls. The control group also consists the matching number of boys and girls. The overall participants’ age ranges between 18 to 30 years.
Table 3.01: Showing the demographic information of the participants

<table>
<thead>
<tr>
<th></th>
<th>Experimental group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>60</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td><strong>Domicile</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>10</td>
<td>47</td>
<td>57</td>
</tr>
<tr>
<td>Rural</td>
<td>50</td>
<td>13</td>
<td>63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>60</td>
<td>60</td>
<td>120</td>
</tr>
</tbody>
</table>

**Inclusive criteria**

1. Participants should not practiced regularly any kind of meditation including vipassana meditation.
2. The age of the participants must range from 18-30 years.
3. Who have scored low on life satisfaction and quality of life scale.
4. Who have given written informed consent to participate in the study.
MEASURES

1. **Personal information schedule (PIS)**

   Personal Information Schedule was prepared by the investigator. This schedule includes identification data and indexed variables such as: 1) Age, 2) Gender, 3) Type of School (Government or Private school), 4) Education, 5) Domicile, 6) Socio-economic status of parent, etc.

2. **Multidimensional Students Life Satisfaction Scale (MSLSS)**

   This scale is developed by Scott Huebner in 2001. The 40-item MSLSS may be administered to Students in groups as well as individually. The MSLSS was designed to provide a profile of children’s satisfaction with important, specific domains, namely Family, Friends, School, Living Environment and Self. Also assess their general overall life satisfaction. Higher scores indicate higher levels of life satisfaction.

   **Reliability**: The reliabilities range from .70 to .90; thus they are acceptable for research purposes. Test-retest coefficients for two- and four-week time periods have also been reported (Dew, 1996; Huebner et al., 1997; Huebner & Terry, 1995) falling mostly in the .70 to .90 range, providing further support for the reliability of the scale.

   **Validity**: The results of exploratory factor analyses have supported the dimensionality of the MSLSS (Huebner, 1994). Confirmatory factor analyses have provided further support for the multidimensional, hierarchical model consisting of a general life satisfaction higher-order factor at the apex of the hierarchy along with five specific domains below (Gilman et al., 2000). Findings have generalized to school age students in Korea (Park, 2000), and Spain (Casas et al., 2000).
3. **Quality of Life Scale**

This scale was developed by Dubey and Dwivedi in 2009. Likert type scoring system consisting of 5 categories of agreement-disagreement was applied to each item of final form of quality of life scale. The scoring weights for each item ranges from 1 to 5 (strongly disagree to strongly agree) with range of possible total from 24-120. Higher score indicates better quality of life (Items 2, 5, 23 is scored in reverse direction) with the average score 72 and more, as better quality of life score. Reliabilities were found to be (r=0.58; and r=0.87) significant at 0.01 level. Validity: The scale had shown face (rated by experts) and content (areas so defined were represented through selected items) validities which were considered satisfactory, though both types of validities had their advantages and obvious limitations.

**PROCEDURE**

The study was carried out in three phases.

**Phase 1**

**Pre-test:** A large group of participants were administered the life satisfaction and quality of life scale. Then only those were selected for the study who has scored low on life satisfaction and quality of life. Then the participants were assigned into two groups randomly. For random assignment of groups, the random number table was used. The experimental group consists of sixty (60) students and the control group consists of sixty (60) students. Then to determine the significant differences between the experimental and control group in pre-test situation on the both the variables, the independent ‘t’ was calculated.
Table 3.02

*Indicating Mean, SD scores on life satisfaction and quality of life for experimental and control group along with ‘t’ value.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
<th>Significant level at 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall life</td>
<td>Expt</td>
<td>60</td>
<td>86.55</td>
<td>5.847</td>
<td>.383</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>86.18</td>
<td>4.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>Expt</td>
<td>60</td>
<td>13.37</td>
<td>1.886</td>
<td>.622</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>13.13</td>
<td>2.213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td>Expt</td>
<td>60</td>
<td>20.70</td>
<td>2.294</td>
<td>.638</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>20.43</td>
<td>2.288</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>Expt</td>
<td>60</td>
<td>18.35</td>
<td>2.200</td>
<td>.037</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>18.33</td>
<td>2.766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living</td>
<td>Expt</td>
<td>60</td>
<td>21.30</td>
<td>2.670</td>
<td>.035</td>
<td>NS</td>
</tr>
<tr>
<td>Environment</td>
<td>Cont</td>
<td>60</td>
<td>21.28</td>
<td>2.532</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>Expt</td>
<td>60</td>
<td>12.98</td>
<td>1.961</td>
<td>.273</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>12.88</td>
<td>2.051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of life</td>
<td>Expt</td>
<td>60</td>
<td>40.92</td>
<td>3.164</td>
<td>1.506</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Cont</td>
<td>60</td>
<td>40.18</td>
<td>2.054</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall it can be observed that there is no significant difference between experimental and control groups in all domains of life satisfaction and also in quality of life. Thus the equating as well as controlling extraneous variable which influence the outcome of an experiment, though they are not the variables that are actually of interest but add error to the study was controlled. Randomization was used to decrease systematic error or extraneous variable making groups as equal as possible on pre-knowledge scores.
All these were taken care during the pre-test situation. The finally only the experimental group received Vipassana Meditation. The control group do not received any Meditation training and the kept into close observation.

**Phase 2**

**Intervention**

The intervention (Vipassana meditation) was given to experimental group (N= 60) by the investigator. Since investigator is a Buddhist Monk and got religious training in various meditation techniques. In the present study the experimental group was directly trained and practiced vipassana meditation by the investigator.

The experimental group practiced vipassana meditation in a comfortable and quite environment. The participants practiced Ten hours per day for one month. The total practice hours taken was 300 hours. For the present study the sitting meditation and walking meditation is given to the participants (Experimental group). Only the sitting meditation is adapted from S. N. Goenka’s model without any major modifications. The detailed intervention and its mechanism are included in the appendix A.

**Phase 3**

**Post-test phase**

Satisfaction with life and Quality of life scales were administered for both experimental and control group immediately after the intervention. However, there were no absent reported in the experimental and control groups throughout the course. There were no intrusion and all the participants took the vipassana meditation course without missing any part.

The effect of the intervention on experimental group was studied and compared between pre-post test phases. Later the same intervention activities were conducted to the control group also for ethical considerations.
STATISTICAL ANALYSES

In order to test the directional hypotheses formulated, a computer based SPSS package was used to analyze the data. The following statistical techniques were applied.

(a) Analysis of variance- General Linear Model- repeated measures of ANOVA

In this research, the effect of Vipassana meditation was recorded among the same group of individuals before and after is checked. Here it is utilized for this study to analyze both the subjects within group effects and between group effects. Because it helps to understand same subjects with every condition of the research, GLM repeated measures of ANOVA was used to variables of various domains of life satisfaction and quality of life.

(b) Cohen’s d

Cohen’s d is used to measure the strength of a phenomenon which is called as effect size or a sample-based estimate of that quantity. An effect size calculated from data is a descriptive statistic that conveys the estimated magnitude of a relationship without making any statement about whether the apparent relationship in the data reflects a true relationship in the population. Cohen’s d is used in this study as it indicate amount of difference between two groups based on life satisfaction and quality of life estimating sample size effect.