CHAPTER 3

METHOD

3.1 Research Design

In the present research, while developing the research design the REACH forgiveness therapy is taken as an independent variable and Self-Esteem, Trait Gratitude, Emotional Regulation, Avoidance Motivation, Revenge Motivation, Conciliation Motivation and Benevolence Motivation, Decisional Forgiveness, Emotional Forgiveness, Empathy, Positive and Negative Affect, Forbearance and Personal Feelings are taken as dependent variables.

3.1.1 Sample

Purposive sample of 128 students are taken as sample for the present study. The participants are recruited students studying in various departments of Karnatak University, Dharwad.

Table No 3.01 Details of the sample in terms of Number (Condition wise)

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Conditions</th>
<th>N</th>
<th>Mean Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Immediate Treatment</td>
<td>66</td>
<td>23.3</td>
<td>128</td>
</tr>
<tr>
<td>2.</td>
<td>Waiting List</td>
<td>62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Completed Informed Consent & were screened: 140

Participants Randomized: 128
Not Eligible for Study: 05
Dropped out after Screening: 07

Assigned to Immediate Treatment: 66
Assigned to Waiting List: 62

Received REACH Treatment
Waiting for Treatment

Figure No. 3.01 Sample Design Flow Chart
To ensure the purposive sampling, the following inclusion and exclusion criteria were followed.

**Inclusive Criteria**
To participate in this study, the participants must have circled all of the following:

1. The participant must have experienced a hurtful incident that still bothers enough to create negative feelings such as anger, resentment, bitterness, hate, feelings of wanting to hurt the person back, anxiety, hostility etc.
2. Participants rate their current unforgiveness (0= no present unforgiveness; 1= a little unforgiveness; 2= some substantial unforgiveness remains; 3= a lot of unforgiveness; 4= an extreme amount of unforgiveness; to be eligible for participation, the participant must rate at 2, 3 or 4).
3. The participant must be ready to work on the memory of that hurtful experience in a group of other men/women with the idea of possible forgiving the person.
4. The participant must be willing to discuss the hurtful experience within the group.

**Exclusion Criteria**
Students falling under the following criteria were excluded from the sample to be studied:

1. Participants who have not experienced any hurtful incident and negative feelings were excluded from the present study.
2. Participants who have not rated their current unforgiveness at 2, 3, or 4 were excluded from the present study.
3. Participants who were not ready to work on the memory of their hurtful experience in a group of other men/women were excluded from the present study.
4. Participants who were not willing to discuss the hurtful experience within the group were excluded from the present study.

**Ethical Issues**

1. No students were forced to answer the questionnaire.
2. The nature and the purpose of the study were explained before administering the questionnaires.
3. Confidentiality was assured to the participants.
4. Consent form was filled before administering the questionnaires.
3.2 Operational Definitions of Variables

The following operational definitions have been formulated and provided for each of the variables under this study.

**Self-Esteem** is an attitude that individuals hold about the self or more specifically, an evaluation of one’s lovability and competence.

**Gratitude** is defined as “as a generalized tendency to recognize and respond with grateful emotion to the roles of other people’s benevolence in the positive experiences and outcomes that one obtains” McCullough et al. (2002).

**Emotional Regulation** refers to the processes by which we influence which emotions we have, when we have them, and how we experience and express them. There are two major emotion regulation strategies, such as-

- **Cognitive reappraisal** is defined as the attempt to reinterpret an emotion-eliciting situation in a way that alters its meaning and changes its emotional impact (Lazarus & Alfert, 1964; Gross & John, 2003).
- **Expressive suppression** is defined as the attempt to hide, inhibit or reduce ongoing emotion-expressive behavior (Gross & Levenson, 1993; Gross & John, 2003).
- **Avoidance Motivation** is the act of staying away from possible negative stimuli (objects or events and desire to avoid distressing problems and undesirable outcomes (a prevention focus; towards the transgressor.
- **Revenge Motivation** is desire to vengeance or for harmful action against a person or group in response to perceived harm or injustice form the transgressor.
- **Conciliation motivation** is a desire to overcome distrust or hostility towards transgressor.
- **Benevolence motivation** is an act of doing good or giving aid to transgress or by expressing good will or kind feelings.
- **Decisional forgiveness** is a decision to change one’s behavioral intentions towards a transgressor to not pursue vengeance, not avoid (unless dangerous to continue to interact with the person) and to treat the person as a human being with dignity and value.
- **Emotional forgiveness** is the emotional replacement of negative unforgiving emotions (resentment, bitterness, hostility, hatred, anger, and fear) with positive, other-oriented emotions (empathy, sympathy, compassion, and love) for the transgressor.
Empathy is an effort to understand another person’s perception of an interpersonal event as if one were that other person, rather than judging the other person’s behavior from the perspective of one’s own experience in the event. Positive Affect reflects the extent to which a person feels enthusiastic, active, and alert. Negative Affect is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness. Forbearance is the exercise of patience or restraint or indulgence toward one’s offenders or enemies. Shame is an over-whelming feeling characterized by a sense of being “small” and worthless in the eyes of both the self and others. Guilt involves a concern with a specific behavior or transgression. When guilty, people are consumed with an idea that they did a “bad thing”. Guilt is characterized by feelings of tension, remorse and regret over the bad thing that was done.

3.3 Measures Used
3.3.1 Self-Esteem Scale-10 (SES-10)
This scale was developed by Rosenberg (1965). It is used to assess how participants perceived their self-esteem. The scale consists of 6 positive items: 1, 3, 4, 7, 8, 10 and 4 negative items: 2, 5, 6, 9. A total of 10 items are measured on a 4-point rating scale (1 = strongly agree to 4 = strongly disagree).

3.3.2 Trait gratitude Questionnaire-6 (TGQ-6)
The trait gratitude questionnaire was developed by McCullough et al., (2002). The six-item trait gratitude questionnaire is used to assess dispositional gratitude. Participants complete items on a 7-point Liker scale from 1 = strongly disagree to 7 = strongly agree. Cronbach’s alpha estimates for the six-item totals have ranged from .76 to .84 (McCullough et al.). In addition, the scale has shown evidence of construct validity (McCullough et al.).

3.3.3 Emotional Regulation Scale- 10 (ERS-10)
This ten-item scale (Gross & John, 1993) assess the degree to which people show individual differences in the habitual use of two emotion regulation strategies, such as: cognitive reappraisal and expressive suppression. Reappraisal Items are: 1, 3, 5, 7,
8, 10; Suppression Items are: 2, 4, 6, 9. The items of the ERS are rated on a 7 point rating Likert scale from 1 = strongly disagree to 7 = strongly agree.

3.3.4 Transgression-Related Interpersonal Motivations Inventory-25 (TRIM-25)
Avoidance, revenge, and benevolence motivations and conciliatory behaviors towards the offender were measured using the Transgression-Related Interpersonal Motivations Inventory (McCullough et al., 1998). The full TRIM consists of 25 items that measure avoidance motivations (TRIM-A; 7 items), revenge motivations (TRIM-R; 5), benevolent motivations (TRIM-B; 7 items) and conciliatory behaviors (TRIM-C; 6 items). Participants indicated their motivations or behaviors toward the person who hurt them on a 5-point rating scale from 1 = strongly disagree to 5 = strongly agree. Scores on the TRIM have been shown to have Cronbach’s alphas ranging from .82 to .95 for the four subscales (McCullough et al.). Estimated three-week temporal stability in a sample of people who had difficulty forgiving ranged from .79 to .86 for the avoidance and revenge subscales. Estimated eight-week temporal stability in a sample of recent victims ranged from .44 to .53 for the avoidance and revenge subscales. Scores on all four subscales of the TRIM have shown evidence of construct validity and they have been found to be positively correlated with measures of forgiveness, degree of hurtfulness of transgression, relationship satisfaction, and commitment.

3.3.5 Decisional Forgiveness Scale-8 (DFS-8)
Decisional forgiveness of a person on a target offense was measured by the Decisional Forgiveness Scale (DFS, Worthington, Hook, Utsey, Williams, & Neil, 2007). The DFS consists of 8 items that measure the degree to which one has made a decision to forgive someone of a specific offense. Participants indicated their agreement with each item on a 5-point rating scale from 1 = strongly disagree to 5 = strongly agree. Scores on the DFS had Cronbach’s alpha coefficients ranging from .82 to .86 (Worthington et al.). The 3-week temporal stability coefficient was .73 (Worthington et al.). Scores on the DFS also showed evidence of construct validity and were correlated with other measures of state forgiveness, trait forgivingness, forgiveness-related constructs such as empathy and anger, and a behavioral measure of forgiveness (Worthington et al.).
3.3.6 Emotional Forgiveness Scale-8 (EFS-8)
Emotional forgiveness of a person on a target offense was measured by the Emotional Forgiveness Scale (EFS, Worthington et al., 2007). The EFS consists of 8 items that measure the degree to which one has experienced emotional forgiveness and peace for a specific offense. Participants indicated their agreement with each item on a 5-point rating scale from 1 = strongly disagree to 5 = strongly agree. Scores on the EFS had Cronbach’s alpha coefficients ranging from .69 to .83 (Worthington et al.). The 3-week temporal stability coefficient was .73 (Worthington et al.). Scores on the EFS also showed evidence of construct validity and were correlated with other measures of state forgiveness, trait forgivingness, forgiveness-related constructs such as empathy, rumination, anger, and a behavioral measure of forgiveness (Worthington et al.).

3.3.7 Batson Empathy Adjectives-8 (BEA-8)
The 8-item Batson Empathy Adjectives (Batson, 1986; Coke, Batson, & McDavis, 1978) were used to measure emotional empathy towards the offender. Participants rated each adjective on a six-point rating scale from 0 = not at all to 5 = extremely. Coke et al. report Cronbach’s alphas for scores on this scale from .79 to .95. Scores on the scale show evidence of construct validity. In the current sample, the Cronbach’s alpha was .94.

3.3.8 Positive and Negative Affect Schedule-20 (PANAS-20)
The Schedule was developed by Watson, Clark and Tellegen (1988). It was used to assess positive and negative affect in a relationship with the target person. It has 10 positive and 10 negative items. Positive items are 1, 3, 5, 9, 10, 12, 14, 16, 17, 19 and negative items are 2, 4, 6, 7, 8, 11, 13, 15, 18, 20. The items were completed on a 5-point rating scale from 1 = very slightly or not at all to 5= extremely. Watson et al. reported Cronbach’s alphas ranging from .84 to .90 for the two subscales and temporal stability estimates ranging from .39 to .71. In the current sample, Cronbach’s alphas for Positive Emotions and Negative Emotions were .88 and .92, respectively.

3.3.9 Negative Emotional and Motivational Expression after Transgressions-10 (NEMET-10)
This 10 item scale was developed by Worthington (2001). Participants indicated their agreement with each item on a 5-point rating scale from 1 = strongly disagree to 5 =
strongly agree. It measures the forbearance of the transgressed individual toward the transgressor.

3.3.10 Personal Feelings Questionnaire-22 (PFQ-22)
This scale was developed by Harder and Lewis (1987). It is a 22-item measure of state guilt and shame. The scale consists of sixteen feelings related to the experience of guilt and shame and six filler items. Ten items such as-1, 3, 6, 7, 10, 12, 14, 16, 18, 21 assess shame felt over a specific offense and six items such as- 2, 4, 8, 11, 17, 22 assess guilt experienced over a specific event. Participants rate the degree to which they experience each of the emotions on a five-point rating scale ranging from 0 = I do not experience the feeling to 4 = I experience the feeling very strongly. Concurrent validity and internal consistency for both shame and guilt subscales was found to be .78 and .72 respectively (Harder & Greenwald, 1999; Harder & Lewis, 1987; Harder & Zalma, 1990).

Demographic Information
Demographic information was used to obtain individual’s Gender, Domicile, Income, Caste, Religious Affiliation, Religious Commitment and Intensity of Spiritual Life.

Conditions Used
REACH Forgiveness Psycho-Educational Groups
Manualized Groups: The 6-hour REACH Forgiveness intervention (Worthington, 2001) was manual directed for leaders and participants. The secular version was used which has been used in many other studies to examine the efficacy of the REACH Forgiveness psycho-educational groups (Blocher & Wade, 2010; Kiefer et al., 2009; Sandage & Worthington, 2010; Wade & Meyer, 2009; Wade, Worthington, & Haake, 2009). Each group was conducted on one day for 6 hours of treatment and breakfast was provided. Leader directed participants through six practical sessions, such as-

1. **Forgiving in context:** In this session, participants get know each other within the group and it also investigates some of the things that famous literary works say about interpersonal forgiveness.

2. **What is Forgiveness?** This session explored what is and is not meant by forgiveness, with special emphasis given to the notion that forgiveness does not require reconciliation.
3. **Recall the hurt:** In this session, participants recalled the hurtful experiences and shared them with the group. This session provided additional time to disclose the offense and attend to emotions that surfaced as a result.

4. **Empathy for the one who hurt you giving a gift of forgiveness:** This session introduced empathy. Participants completed exercises intended to help them develop empathy, such as writing a letter as if they were the offending person, explaining some of the reasons why they, “as the offenders,” committed the offense.

5. **Giving an Altruistic Gift of Forgiveness:** This session provided more opportunity to develop empathy for the offending person. In addition, participants recalled times when they had hurt others and had wished to be forgiven. This forgiveness, which participants envisioned themselves receiving and giving, is framed as an altruistic gift.

6. **Holding on to forgiveness and becoming a more forgiving person:** In the sixth and final session, participants who feel they are ready to forgive their offenders developed personal ways to commit to their decisions to forgive. Various strategies were discussed (e.g., “Write out a list of all the hurts and then burn, bury, or shred the paper” and “Tell a trusted friend that you have forgiven the offender”). Participants then wrote a letter of forgiveness to their offenders (not actually to be sent). Finally, participants shared with one another their experiences over the six sessions and the treatment was concluded.

**Immediate Treatment Design**

An Immediate Treatment Design was employed, which can be displayed as follows-with O indicating an observation or assessment and X indicating treatment. The three observation points O1, O2 and O3 are the three testing points prior to any treatment (O1), two weeks later (O2) and two weeks later still (O3).

**Waiting List Design**

A waiting list design was also employed, which can be displayed as follows- with O indicating an observation or assessment and X indicating treatment. The three observation points O1, O2 and O3 are the three testing points prior to any treatment (O1), two weeks later (O2) and two weeks later still (O3).
The Efficacy of REACH Forgiveness Therapy

Week1 Wk2 Wk3 Wk4 Wk5
ODO1 X O2 O3 (Immediate Treatment Design)
ODO1 O2 X O3 (Waiting List Design)

3.4 Pilot Study
Before the final administration of the scales on main sample group of the present study, a pilot study was conducted to verify the suitability of all the measures. This included the composite sample of 32 subjects. This sample was chosen from which the main sample was drawn. Further, reliability and validity of the scales also has been checked for the sample in the study.

The established reliability and validity of the scales is mentioned below:

Table 3.02 showing the Cronbach’s the reliability Coefficient for various scales

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the Scales</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1. Self-Esteem Scale (Positive Dimension)</td>
<td>0.748</td>
</tr>
<tr>
<td></td>
<td>2. Self-Esteem Scale (Negative Dimension)</td>
<td>0.796</td>
</tr>
<tr>
<td>2.</td>
<td>Trait Gratitude Questionnaire</td>
<td>0.768</td>
</tr>
<tr>
<td>3.</td>
<td>1. Emotional Regulation Scale (Cognitive Reappraisal Dimension)</td>
<td>0.963</td>
</tr>
<tr>
<td></td>
<td>2. Emotional Regulation Scale (Expressive Suppression dimension)</td>
<td>0.854</td>
</tr>
<tr>
<td>4.</td>
<td>1. Transgression related interpersonal motivation scale (TRIM) (Avoidance Motivation)</td>
<td>0.919</td>
</tr>
<tr>
<td></td>
<td>2. Transgression related interpersonal motivation scale (TRIM) (Revenge Motivation)</td>
<td>0.936</td>
</tr>
<tr>
<td></td>
<td>3. Transgression related interpersonal motivation scale (TRIM) (Conciliation Motivation)</td>
<td>0.939</td>
</tr>
<tr>
<td></td>
<td>4. Transgression related interpersonal motivation scale (TRIM) (Benevolence Motivation)</td>
<td>0.936</td>
</tr>
<tr>
<td>5.</td>
<td>Decisional Forgiveness Scale</td>
<td>0.861</td>
</tr>
<tr>
<td>6.</td>
<td>Emotional Forgiveness Scale</td>
<td>0.887</td>
</tr>
<tr>
<td>7.</td>
<td>Batson Empathy Adjectives</td>
<td>0.976</td>
</tr>
<tr>
<td>8.</td>
<td>1. Positive Affect Schedule</td>
<td>0.955</td>
</tr>
<tr>
<td></td>
<td>2. Negative Affect Schedule</td>
<td>0.953</td>
</tr>
<tr>
<td></td>
<td>Negative Emotional &amp; Motivational Expression after Transgressions</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>0.892</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Personal Feelings Questionnaire (Shame)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.931</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Personal Feelings Questionnaire (Guilt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.916</td>
<td></td>
</tr>
</tbody>
</table>

### 3.5 Data Collection

In the present study, 128 students who were hurt in relationship were recruited from various departments of Karnatak University, Dharwad. After establishing the suitability of the scales to be used in the present study, the primary data has been collected by contacting the respondents personally. These students were assigned to two conditions. Participants have completed the packet of questionnaires that aim to assess Self-Esteem, Trait Gratitude, Emotional Regulation, Avoidance Motivation, Revenge Motivation, Conciliation Motivation and Benevolence Motivation, Decisional Forgiveness, Emotional Forgiveness, Empathy, Positive and Negative Affect, Forbearance and Personal feelings.

### 3.6 Data Processing

The collected data was scrutinized, coded, scored and then transferred into standard (T) scores.

#### 3.6.1 Scrutinizing

The responses given by each person are carefully scrutinized for wrong marking, omission and commissions. The answer sheets which are complete in all respects were retained and the rest were rejected.

#### 3.6.2 Scoring

Each response sheet is hand-scored as per the instructions given in the manual of the respective scales.

#### 3.6.2.1 Self-Esteem Scale (SES)

This scale consists of ten responses with all the items are positively keyed, the weight-age for each of the items ranges from 1 to 4 (1=strongly agree, 2=Agree, 3=disagree, 4=strongly disagree). This scale is two-dimensional, items 1, 3, 4, 7, 8 and 10 belong to positive dimension and items 2, 5, 6 and 9 belong to negative dimension. Thus, the possible raw score ranges from 1-40. The high score indicates higher self-esteem and the vice versa.
The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

### 3.6.2.2 Trait Gratitude Questionnaire (TGQ)

This scale consists of six responses with all the items are positively keyed the weight-age for each of the items ranges from 1 to 6 (1=disagree strongly, 2=disagree, 3=disagree somewhat, 4=agree somewhat, 5=agree, 6=agree strongly). Thus, the possible raw score ranges from 1-60. The high score indicates higher trait gratitude and the vice versa.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

### 3.6.2.3 Emotional Regulation Scale (ERS)

This scale consists of ten responses with all the items are positively keyed, the weight-age for each of the item ranges from 1-70 (1=strongly disagree, 2=disagree, 3=mildly disagree, 4=neutral, 5=mildly agree, 6=agree, 7=strongly agree). This scale is two-dimensional, items 1, 3, 5, 7, 8 and 10 belongs to cognitive reappraisal dimension and items 2, 4, 6 and 9 belongs to expressive suppression dimension. Thus, the possible raw score ranges from 1-70.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

### 3.6.2.4 Transgression-Related Interpersonal Motivations (TRIM) Inventory

This scale consists of twenty five items; all the items are positively keyed. This scale is four dimensional. The 5 item (i.e., 1, 2, 3, 4, 5, 6 and 7) Revenge sub scale measures motivation to seek revenge, the possible score ranges from 5 to 25. The 7 item (i.e., 8, 9, 10, 11 and 12) Avoidance sub scale measures motivation to avoid a transgressor, the possible score ranges from 7 to 35. The score of six item (i.e., 19, 20, 21, 22, 23 and 25) sub scale for measuring benevolence motivation, ranges score from 6 to 30. Other subscale conciliation having 7 items (i.e., 13, 14, 15, 16, 17, 18 and 24), ranges score from 7 to 35. Items are rated on a 5 point Likert type scale (1= Strongly Disagree, 2= Mildly Disagree, 3= Agree and Disagree Equally, 4= Mildly agree, 5= Strongly agree). The high score indicates higher level of Motivation to Avoidance, Revenge, Benevolence and Conciliation.
The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.6.2.5 Decisional and Emotional Forgiveness Scale (DEFS)

This scale consists of 16 items that are positively keyed. The weight-age for each of the items ranges from 5 to 1 (i.e., 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree and 1=Strongly Disagree). This scale is two dimensional; 1) Decisional Forgiveness and 2) Emotional Forgiveness. Each dimension consists of 8 items. The possible raw score ranges from 8 to 40 for each dimension. The high score indicates higher level of Decisional Forgiveness and Emotional Forgiveness.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.6.2.6 Batson Empathy Adjectives (BEA)

This scale consists of eight responses which are positively keyed. The weight-age for each of the items ranges from 1 to 6 (1=not at all, 2=little, 3=somewhat, 4=moderately, 5=quite a lot, 6=extremely). The possible raw score ranges from 1=60. The high score indicates higher empathy.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.6.2.7 Positive and Negative Affect Schedule (PANAS)

This scale consists of twenty responses that are positively keyed. The weight-age for each of the items ranges from 1 to 5 (1=not at all or very slightly, 2=a little, 3=moderately, 4=quite a bit, 5=extremely). This scale is two-dimensional, items 1, 3, 5, 9, 10, 12, 14, 16, 17 and 19 belongs to positive dimension and items 2, 4, 6, 7, 8, 11, 13, 15, 18 and 20 belongs to negative dimension. Thus, the possible raw score ranges from 1-50. The high score indicates higher positive affect and the vice versa.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.6.2.8 Negative Emotional and Motivational Expression after Transgressions (NEMET)

This scale consists of ten responses that are positively keyed. The weight-age for each of the items ranges from 1 to 5 (1=strongly disagree, 2=disagree, 3=Neutral, 4=agree, 5=strongly agree). The possible raw score ranges from 1=50. The high score
The Efficacy of REACH Forgiveness Therapy

indicates higher forbearance. The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.6.2.9 Personal Feelings Questionnaire (PFQ)

This scale consists of twenty-two responses that are positively keyed. The weight-age for each of the items ranges from 4 to 0 (4=I experience the feeling very strongly, 3= I experience the feeling strongly, 2= I experience the feeling moderately, 1= I experience the feeling a little bit, 0= I do not experience the feeling). It has three dimensions. Items 1, 3, 6, 7, 10, 12, 14, 16, 18 and 21 belong to shame dimension. Items 2, 4, 8, 11, 17 and 22 belongs to guilt dimension and lastly items 5, 9, 13, 15, 19 and 20 belongs to false dimension. The possible raw score ranges from 40-0. The high score indicates higher shame and guilt.

The responses obtained are scored manually as per the directions given by the author. The raw scores thus obtained are transformed into standard (T) scores.

3.7 Analysis of Results

3.7.1 Statistical Technique Applied

The following statistical techniques are applied to analyze the scores obtained and to verify the main hypotheses as well as their specific forms.

1. Multivariate Analysis of Variance (MANOVA)
2. Step-wise Multiple Regression Analysis

MANOVA and Step Wise Multiple Regression Analysis are computed with the help of computer by using software “SPSS” (17 Version).

3.7.1.1 Multivariate Analysis of Variance (MANOVA)

MANOVA programme provides the significance of difference, if any, among three or more groups when compared simultaneously in relation to three or more than three variables. MANOVA controls Type 1 error across all of the dependent variables in the model. MANOVA has potential to be a more powerful test than univariate ANOVA because it considers both the variances and co-variances of the dependent measures (Fauser, Rogers, and Fisk, 2009). This technique is applied in the present investigation to verify Ha1.
3.7.1.2 Univariate ‘F’ Test (ANOVA)

The statistical technique of Analysis of Variance makes a single overall decision to check whether a significant difference is present among three or more samples. The ANOVA is applied in the present study to verify Ha1.

3.7.1.3 Stepwise Multiple Regression Analysis*

In order to determine the relationship of multiple predictors on single criterion, Stepwise Multiple Regression is used. The general purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. The variable that explains the greatest amount of variance in the dependent variable will enter first; the variable that explains the greatest amount of variance in conjunction with the first will enter second and so on... in other words, the variable that explains the greatest amount of variance unexplained by the variable already in the equation enter the equation at each step and one or more of the variables may never be entered into the regression equation if the statistical criterion is not met (Nie et al., 1975).

In this technique, the regression of dependent variables or criterion variable (Y1, Y2, Y3, Y4, Y5, Y6, and Y7) on all independent variables or predictor variables (X1 to X14) is calculated. This analysis is performed to study the influence of Gender, Domicile, Income, Caste, Religious Affiliation, Religious Commitment and Intensity of Spiritual Life. The outcome of this analysis is used to identify the variable that would significantly contribute to the dependent variables.

***

* The variable that explains the quarter amount of variance will enter first; the variable that explains the greater amount of variance in conjunction with the first will enter second and so on. In other words, the variable that explains the greatest amount of variance unexplained by the variables already in the equation enter the equation at each step. And one or more of the variables may be entered into the regression equation if the statistical criterion is not met. (Normann H. Nie et al (1975), SPSS, 2nd edition, New York. Mc Graw Hill Book Co, P-345)