II CHAPTER

METHODOLOGY

2.1. Need for the Research:

Adolescents constitute a substantial section of the population. Their holistic health determines the current and future vitality of the country to a large extent. Adolescence period is accompanied by disturbance and emotional instability, which is attributed to psychological, physical and physiological changes leading to confusion and poor self concept. Today, most of the parents are more career oriented and have generation gap. Presently adolescents are becoming so crazy about starting their independent life as early as possible; similarly they also experience emotional and relationship problems due to the wider generation gap between themselves and their parents. In other words, this wider generation gap between the parents and adolescents, leads to significant differences, between the parents and their children, as far as their values, attitudes and life style are concerned. As a result of which, adolescents are showing serious psychological and emotional disturbances that lead them to engage in risky relationships, sexual activity, leaving schools, use of drugs and alcohol consumption. Information overload and multiple expectations from family, peers and society adds to the confusion in the young minds which increases high risk behaviours. Adolescents with sound and balanced personality are better adjusted and can contribute to the society to a greater extent in a healthy manner.

As it is observed that the present day adolescents are facing psychosocial problems, there is a felt need to provide therapeutic aid for suffering young minds, to come out of the problems and reach their objective in life. Hence, the therapeutic aid
in the form of counseling, help the adolescents to develop the self awareness, identify their potentialities and get ready to actualize their inner strength to the fullest extent possible. Simultaneously, counseling is expected to play a significant role in modifying the behaviour of the adolescent through minimizing the unwanted behaviours and maximizing the positive aspects.

It is important to notice that adolescents are expected to have high achievement motivation, self-esteem, emotional maturity, along with optimum level of anxiety and favourable perceived parent-child relationship as well. It may be very difficult for the adolescents to realize the above expectations, if they are left to themselves without the proper guidance and timely help. In view of this the present study is taken up to investigate the impact of counseling in enhancing the achievement motivation, self-esteem, emotional maturity, and also helping them to maintain optimum level of anxiety and favourable perceived relationship with the parents.

Particularly in the state of Goa where adolescents are getting influenced by the western culture, are more prone to develop several psychological conflicts. Especially such adolescents are standing on the cross roads having a lot of mental confusions to decide about their future. Even this issue created a need for the researcher to take up this kind of study to prove the effectiveness of psychological interventions through counseling with an ultimate goal of developing healthy adolescents for the better future in the state.
2.2. Objectives of the Study:

Keeping in view the significance of Psychological interventions as a mode of therapy the following objectives have been formulated:

1. To study whether Psychological intervention will lead to significant improvement in the achievement motivation, self-esteem, emotional maturity, parent-child relationship and reduce high anxiety of Goan adolescents.

2. To study empirically the impact of demographic factors such as age, gender, faculty, birth order, early background, type of family, parental education, occupation, and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity, and self identity of Goan adolescents on their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety.

2.3. Research Questions:

1. Does the psychological intervention through counseling enhances the achievement motivation, self-esteem, emotional maturity, parent-child relationship and reduces anxiety among Goan adolescents?

2. Do demographic factors such as age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity, and self identity of Goan adolescents; influence significantly their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety?
2.4. Hypotheses:

The design and objectives of the study makes it necessary for the formulation of the hypotheses from the different angles by comparing the dependent variables of the study such as of the achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety within the groups and between the groups at two phases of testing i.e. at pre test and post test phase (after intervention).

Thus, various hypotheses are formulated for observing the difference in the above variables at pre test and post test phases. Figure no. 2.01 illustrates the groups and the two phases of testing.

![Diagram of Design of the Research Study](image)

**Figure 2.01: Diagram of Design of the Research Study**

2.4.1. Control Group:

2.4.1.1. Comparison of Control Group from Pre Test to Post Test Phase:

**Ha**<sub>1</sub> Goan Adolescents of control group do not differ significantly in their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety from pre test to post test phase.

Further, from Ha<sub>1</sub> some specific hypotheses are drawn and stated below;

**Ha**<sub>1.1</sub> Goan adolescents of control group do not differ significantly in their achievement motivation from pre test to post test phase.

**Ha**<sub>1.2</sub> Goan Adolescents of control group do not differ significantly in their self-esteem from pre test to post test phase.
Ha1.3 Goan Adolescents of control group do not differ significantly in their emotional maturity from pre test to post test phase.

Ha1.4 Goan Adolescents of control group do not differ significantly in their parent-child relationship from pre test to post test phase.

Ha1.5 Goan Adolescents of control group do not differ significantly in their anxiety from pre test to post test phase.

2.4.2 Experimental Group:

2.4.2.1. Comparison of Experimental Group from Pre Test to Post Test Phase:

Ha2 Goan Adolescents of experimental group will have significantly enhanced achievement motivation, self-esteem, emotional maturity, parent-child relationship and reduced anxiety at post test phase.

Further, from Ha2 some specific hypotheses are drawn and stated below;

Ha2.1 Goan Adolescents of experimental group will have significantly enhanced achievement motivation at post test phase.

Ha2.2 Goan Adolescents of experimental group will have significantly enhanced self-esteem at post test phase.

Ha2.3 Goan Adolescents of experimental group will have significantly enhanced emotional maturity at post test phase.

Ha2.4 Goan adolescents of experimental group will perceive their parent-child relationship more favourably at post test phase.

Ha2.5 Goan adolescents of experimental group will have significantly reduced anxiety at post test phase.

2.4.3 Comparison between Control and Experimental Group at Pre Test and Post Test Phase:

2.4.3. Pre Test Phase:

Ha3 Goan adolescents in control and experimental group do not differ significantly from each other in their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety at pre test phase.

Further, from Ha3 some specific hypotheses are drawn and stated below;

Ha3.1 Goan adolescents in control and experimental group do not differ significantly from each other in their achievement motivation at pretest phase.

Ha3.2 Goan adolescents in control and experimental group do not differ significantly from each other in their self-esteem at pre test phase.
Ha$_{3.3}$ Goan adolescents in control and experimental group do not differ significantly from each other in their emotional maturity at pre test phase.

Ha$_{3.4}$ Goan adolescents in control and experimental group do not differ significantly from each other in their parent-child relationship at pre test phase.

Ha$_{3.5}$ Goan adolescents in control and experimental group do not differ significantly from each other in their anxiety at pre test phase.

2.4.4. Post Test Phase:

Ha$_4$ Goan adolescents of experimental group will have significantly enhanced achievement motivation, self-esteem, emotional maturity, parent-child relationship and reduced anxiety than adolescents in control group at post test phase.

Further, from Ha$_4$ some specific hypotheses are drawn and stated below;

Ha$_{4.1}$ Goan adolescents of experimental group will have significantly enhanced achievement motivation than adolescents in control group at post test phase.

Ha$_{4.2}$ Goan adolescents of experimental group will have significantly enhanced self-esteem than adolescents in control group at post test phase.

Ha$_{4.3}$ Goan adolescents of experimental group will have significantly enhanced emotional maturity than adolescents in control group at post test phase.

Ha$_{4.4}$ Goan adolescents of experimental group will perceive their parent-child relationship more favourably than adolescents in control group at post test phase.

Ha$_{4.5}$ Goan adolescents of experimental group will have significantly reduced anxiety than adolescents in control group at post test phase.

2.4.5. Influence of Demographic factors on Achievement Motivation, Self-Esteem, Emotional Maturity, Parent-Child Relationship and Anxiety of Goan Adolescents:

Ha$_5$: Demographic factors such as age, gender, faculty, birth order, early background, type of family, parental education, occupation, and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity and self identity of Goan adolescent contribute significantly to their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety.

Ha$_{5.1}$: Demographic factors such as age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family
relations, career (decided/undecided), sensitivity and self identity of Goan adolescents significantly contribute to their achievement motivation.

Similarly the remaining sub hypotheses (Ha5.2 to Ha5.5) are also formulated and tested.

2.5 Operational Definition of Variables:

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

Achievement Motivation: This is the strong desire or urge in the mind of the person to achieve something of high standard by utilizing one’s own potentialities to the fullest extent to excel in his/her performance.

Achievement Motivation stresses the importance of accomplishment and attainment with efforts involved. It relates to an individual’s reason for engaging in an activity, the degree to which an individual pursues the activity, and the persistence of the individual.

Self-Esteem: This concept is used to describe a person’s overall sense of self-worth or personal value. Self-esteem depends on the confidence in our ability to think, cope with the basic challenges of life and to be successful and happy.

Emotional Maturity: This concept involves the awareness of one’s feelings and emotions, both positive and negative, and the ability to manage the expression and experience of these emotions for the benefit of oneself and others. It is a process in which the person is continuously striving for greater sense of emotional health.

Anxiety: It is the subjective experience of the individual which means painful and uneasiness of mind. It is a special variety of fear experience in response to an anticipated threat to self existence. Anxiety is the unpleasant emotion characterised by
the term worry, apprehension, dread and fear that all experience at times in varying degrees.

**Parent-Child Relationship:** This concept refers to the cognitive, affective and connative interaction taking place between the children and parents. It means how children perceive their parents as far as their acceptance and rejection are concerned in other words to what extent children positive and negative feelings towards their parents have. Thus Parent-child relationship is characterised by parental acceptance and rejection.

**Psychological Intervention:** It is a process to alter maladjusted behaviour by gaining insight to diagnose the problem and to deal with emotional difficulties, resulting in enhancement of the adolescent’s capacity to take rational control over their feelings and behaviours. It facilitates the person’s personal growth and brings change through self knowledge.

**2.6 Design:**

In this research study, while developing the quasi-experimental research design, psychological intervention through counselling is taken as independent variable, whereas variables such as achievement motivation, self-esteem, emotional maturity, anxiety and parent-child relationship are taken as dependent variables. In further analysis also, demographic factors such as age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity and self identity of Goan adolescents are taken as independent variables (x1....xviii), while achievement motivation, self-esteem,
emotional maturity, parent-child relationship and anxiety are taken as dependent variables ($y_1, y_2, y_3, y_4$ and $y_5$).

Figure 2.02: Diagram of Quasi-Experimental Research Design

2.7 Sample:

Initially, a huge sample of 500 adolescents was taken for the study. Later a purposive sample of 300 adolescents was retained depending upon their lower scores obtained from achievement motivation, self-esteem and positive dimensions of parent-child relationship and high scores obtained from emotional maturity, anxiety and negative dimensions of parent-child relationship scales. This sample consists of boys and girls studying in under graduate course of Arts, Science and Commerce faculties. The age range of these adolescents is between 17-20 years. The sample constituted of adolescents studying in four different colleges of South Goa, such as
ACHIEVEMENT MOTIVATION, SELF-ESTEEM, EMOTIONAL MATURITY, PARENT-CHILD RELATIONSHIP AND ANXIETY OF GOAN ADOLESCENTS: IMPACT OF PSYCHOLOGICAL INTERVENTION

Carmel College, Chowgule College, M.E.S College, and Rosary College. In order to find out the impact of psychological intervention adolescents having low achievement motivation, self-esteem, emotional immaturity, high anxiety and poor parent-child relationship were identified, such identified adolescents are 300. Further randomly these 300 adolescents were assigned to two groups namely control and experimental group (150 in each group). The experimental group adolescents were given psychological intervention in the form of counselling whereas no intervention was given for control group adolescents.

Table 2.01 Shows the Background Characteristics of the Total Sample (N=300)

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2.8 Pilot Study:

Prior to the final administration of the scales on the main sample under study, a pilot study has been conducted to test the suitability of all the five measures. The pilot study included the composite sample of 40 subjects. At the time of administration of the scales it was verified whether the items of all the scales are clearly understandable by the subjects or not. Since there was no difficulty regarding the clarity of items of all scales, there was no need to re-establish the validity and reliability of the scales. In addition to this all these scales already have been used on Indian samples.

As far as the validity of the intervention programme is concerned the researcher provided the intervention programme for the pilot sample also and found the changes in the desirable manner.

2.9 Data Collection:

From a list of colleges offering under graduate courses, some South Goa colleges were selected at random such as Carmel College, Chowgule College, M.E.S College and Rosary College. Before contacting the adolescents and administering the questionnaires, the investigator took the prior permission from principals of the selected colleges. Then primary data was collected by administering all the measures on 500 (pre test data) adolescents from arts, science and commerce faculties of under graduate colleges.
Later those adolescents who were in need of counselling were identified on the basis of their low scores for achievement motivation, self-esteem, positive dimensions of parent-child relationship and high scores obtained from emotional maturity, anxiety and negative dimensions of parent-child relationship scales. Further they were divided into two groups namely control group (N=150) and experimental group (N=150). Counselling intervention was provided for the experimental group in four to five sessions, whereas control group remained without counselling intervention. The intervention consists of eclectic approach selecting best principles from various counselling approaches. Depending upon the needs and problems of experimental group adolescents, counselling was designed and provided. After a gap of five months during which counselling was provided for the experimental group, post test data was collected from both the groups.

Apart from the responses to the scales such as achievement motivation, self-esteem, emotional maturity, anxiety and parent-child relationship, some other information regarding personal and demographic factors like age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity, and self identity of Goan adolescents, included in the bio-data sheet were also collected.
2.10 **Inclusion and Exclusion Criteria:**

2.10.1 **Inclusion:**

- Adolescents having both the parents
- Adolescents studying in under graduate Colleges
- Adolescents of both the Gender
- Adolescents who were willing to participate in the study
- Those who answered for all the items of the scales
- Those who were identified for the need of counseling
- Only South Goa adolescents were included in the study.

2.10.2 **Exclusion:**

- Adolescents who were not having both the parents and also those having single parents
- No other adolescents other than those of under graduate classes
- Adolescents who were not willing to participate in the study
- Incomplete response sheets
- Those who did not show the need for counseling
- Adolescents of other parts of Goa were excluded
2.11 Data Procession:

The data collected were scrutinized, coded, scored, and then retained. The retained data was only 300 out of 500 response sheets.

2.11.1 Scrutinizing:

The responses given by each adolescent were carefully scrutinized for wrong markings, omissions and commissions. The response sheets, which were complete in all respects, were retained and the rest rejected.

2.11.2 Scoring:

All the scale response sheets were scored according to the instructions provided by the respective scale constructors.

2.12 Measures Used:

2.12.1 Achievement Motivation Scale:

Pratibha Deo and Asha Mohan (1971) Need for achievement (DMAMS): - is a self rating questionnaire, used for assessing the level of achievement on the adolescent’s sample. It has 50 items and no time limit. There are 37 positive items and 13 negative items. The reliability coefficient is reasonably high (r=0.69) using the test retest method and the item validity is established by high-low discrimination method and it was accepted as the validity of the whole measure.

2.12.2 Self-Esteem Scale:

Rosenberg (1960) Self-Esteem Scale: It has been designed in English to assess the level of self-esteem. It includes 10-statements assessing the degree to which respondents are satisfied with their lives and feel good about themselves. Five of these
statements are worded negatively and remaining items are worded positively. Items of this scale are rated on a 5-point Likert-type scale ranging from strongly agree to strongly disagree. This scale has high reliability. Test-retest correlations coefficients range from 0.82 to 0.88 and Cronbach’s alpha for various sample ranges from 0.77 to 0.80.

2.12.3 Emotional Maturity Scale:

The scale developed by Yashvir Singh and Mahesh Bhargava (1971), was used to assess the level of emotional maturity on the chosen sample. It is a self-reporting five point likert scale, having a total of 48 items, and five dimensions namely-emotional stability, emotional progression, social adjustment, personality integration, and independence. Respondents are asked to rate items according to either one of the following options namely-very much, much, undecided, probably and never. The test-retest reliability coefficient of the scale as reported by the author is 0.75. Five broad factors of emotional maturity are given below:

2.12.3.1 Emotional Stability:

Emotionally Stable person is able to do what is required of him in any given situation. The characteristic of such as person does not allow him to react excessively to marked changes in any given emotive situation. Contrary to it is emotional unstability, which is a factor representing syndrome of irritability, stubbornness, temper tantrums, lack of capacity to dispose off problems and seek help for one’s day to day problems. This factor has a high correlation (0.75) with the total score obtained on the scale. On the inter-correlation matrix, syndrome of emotional unstability, it has high inter-correlation with social maladjustment but low correlation with emotional regression, personality disintegration and lack of independence. This factor has low
correlations with the two factors analysed in factor analysis and seems to be an independent factor of emotional immaturity.

2.12.3.2 Emotional Progression:

Emotional Progression is the characteristics of the person that refers to the feeling of adequate advancement and growing vitality of emotions in relation to the environment to ensure a positive thinking imbued with righteousness and contentment, as opposed to emotional regression, the factors of which represent the syndromes as feeling of inferiority, restlessness, hostility, aggressiveness and self-centeredness. This factor has correlation with total score on the scale. On the intercorrelation matrix, it is highly inter-correlated with two other factors, that of personality disintegration (0.47) and lack of independence (0.47), but has low inter-correlations with those of social maladjustment (0.27) and emotional unstability (0.18). This subscale has a high correlation (0.63) with the total score on all the five factors of the scale.

2.12.3.3 Social Adjustment:

This factor refers to a process of interaction between the needs of a person and demands of the social environment in any given situation, so that they can maintain and adapt a desired relationship with the environment. Therefore it is described as a person’s harmonious relationship with his social world. Whereas socially maladjusted person shows lack of social adaptability, hatredness, seclusive but boasting, liar and shirker.
2.12.3.4 Personality Integration:

The author reported that this is the process of firmly unifying the diverse elements of an individual’s motives and dynamic tendencies, resulting in harmonious coactions and descalation of the inner conflict, in the undaunted expression of behaviour, whereas disintegrated personality includes all those symptoms like reaction, phobias formation, rationalization, pessimism, immorality etc. Such a person suffers from inferiorities and reacts to the environment through aggressiveness, destruction and has distorted sense of reality. In brief such a person shows varied degree of neuroticism.

2.12.3.5 Independence:

Independence is the capacity of a person’s attitudinal tendency to be self reliant or of resistance to control by others, where he can take his decisions by his own judgment on facts by utilizing his intellectual and creative potentialities. He would never like to show any habitual reliance upon another person in making his decisions or carrying out difficult actions. Whereas a depended person shows parasitic dependence on others, is egoistic and lacks objective interests, people think of him as an unreliable person.

Reliability: The reliability of the scale was determined by (1) Test rest method and the product moment ‘r’ between the two testing was 0.75.

(2) Internal consistency: The internal consistency of the scale was checked by calculating the co-efficient of correlations between total scores and scores on each of the five areas.
R values

A. Emotional Stability \(0.75\)
B. Emotional Progression \(0.65\)
C. Social Adjustment \(0.58\)
D. Personality Integration \(0.86\)
E. Independence \(0.42\)

**Validity:** The scale was validated against external criteria i.e. the Gha. Area of the adjustment inventory for college adolescents by Sinha and Singh. The inventory has ‘Gha’, area measuring emotional adjustment of college adolescents. Product moment correlation obtained between total scores on all twenty-one ‘Gha’, items and total scores on EMS was 0.64.

2.12.4 **Parent-Child Relationship Scale (PCRS):** The above scale is developed by Nalini Rao (1971), which measures Parent-Child Relationship with 100 items. All the items of this tool are classified into 10 different dimensions namely Protecting, Symbolic Punishment, Rejecting, Object Punishment, Demanding, Indifferent, Symbolic Reward, Loving, Object Reward and Neglecting. The description of the subscales is given below:

2.12.4.1 **Demanding (Dem):** This factor is the expression of authority and claim with imperious command over the child, executed in the exercise of over all control.

2.12.4.2 **Indifferent (Ind):** This is the expression of unconcerned apathetic, passive behaviour and functioning without either importance or interest in the child.
2.12.4.3 Loving (Lov): This is the expression of fondness, devoted attachment and amiableness shown to the child.

2.12.4.4 Neglecting (Neg): The parent shows a careless treatment indicated in accustomed omission and deliberate disregard towards the child which might leave the child to devalue himself.

2.12.4.5 Protecting (Pro): The defending attitude of the parent is overtly expressed in the acts of guarding, sheltering and shielding the child from situations or experiences perceived to be hostile, oppressing and harmful.

2.12.4.6 Rejecting (Rej): The parent’s behaviour evident is renouncing the child in aversion. The disposition is indicated in being disdainful and in outright refusal of the child.

2.12.4.7 Symbolic-Reward (SR) and Object-Reward (OR): Symbolic expression of appreciation for emotional, psychological security of the child as against physical, tangible, concrete action of warmth. Both indicate parents acceptance of the child which is a precursor for the child to achieve, aspire and advance.

2.12.4.8 Symbolic-Punishment (SP) and Object-Punishment (OP): Symbolic and physical means by which parents show their temporary annoyance with the child.

Reliability:

The test retest reliability coefficient ranged from 0.770 to 0.871 for boys and 0.772 to 0.873 for girls sample. All the coefficients of correlations are statistically significant at a level of confidence greater than 0.01.
Validities:

The construct validity ranged from 0.289 to 0.578. All the coefficients of correlation ranging from 0.328 to 0.457 were found to be significant at 0.05 level or above.

2.12.5 Anxiety Scale:

Sinha’s Comprehensive Anxiety test (1971) has been designed in English to assess the level of anxiety on the adolescent sample. It includes 90-statements incorporating a variety of anxiety indices proposed by different investigators. The criterion of coefficient of correlation is significant at 0.001 level. The coefficient of reliability was determined by using two methods, i.e., the test retest reliability of the measure is 0.85, Spearman Brown reliability is 0.92 and validity coefficient reported is 0.62, which is significant beyond .001 level of confidence.

2.12.6 Scoring of the Scales:

All the scale response sheets were scored according to the instructions provided by the respective scale constructors.

2.12.6.1 Achievement Motivation:

The inventory was scored manually. There are 37 positive items and 13 negative items. The positive items such as 2-11, 15, 16, 23-31, 33, 35, 36, 38-50, has a response choice on a 5 point scale, given as always, frequently, sometimes, rarely and never which carries the scores as 4, 3, 2, 1 and 0, whereas, the negative items i.e, 1, 12-14, 17-22, 32, 34, 37, has a response choice, given as similar to the positive items but the scoring is done as 0, 1, 2, 3 and 4. There are two separate stencil keys provided for the scoring of positive and negative items scores. The minimum score obtained can be
0 and maximum score can be 200. Hence the higher the score higher is the achievement motivation level and vice-versa.

2.12.6.2 Self-Esteem Scale:

The scale includes 10 statements assessing the degree to which respondents are satisfied with their lives and feel good about themselves. Five of these statements are worded negatively and remaining items are worded positively. Items of this scale are rated on a 5-point Likert-type scale ranging from strongly agree to strongly disagree.

2.12.6.3 Emotional Maturity Scale:

This scale consists of five dimensions, i.e., Emotional instability, Emotional regression, Social maladjustment, Personality disintegration, and lack of Independence. The dimension wise scores are obtained by adding the scores of all the items constituting each dimension. It is a five point scale with 48 items, where subjects are provided with five alternatives to choose from i.e., very much, much, undecided, probably, and never. The weightage of marks for each item is 5, 4, 3, 2 and 1. The dimension wise scores are obtained by adding the scores of all the items constituting each dimension. The total score for this scale is calculated by adding the scores of all the items. The maximum possible score in this scale is 240 and minimum is 48. The lesser the score on the scale, greater is the degree of emotional maturity.

2.12.6.4 Parent-Child Relationship Scale:

All the items of this tool are classified into 10 different dimensions. This scale has two forms namely mother form and father form. Respondents are asked to rate
statements as to their own perception of their relationship with either father or mother on a five point scale ranging from ‘Always’ to ‘Very rarely’ weighted 5, 4, 3, 2 and 1 on the scale points. The scale is scored separately for father and mother form, for ten dimensions of the scale.

2.12.6.5 Anxiety Scale:

The subjects are required to respond in either positive or negative terms, i.e., in terms of ‘Yes’ or ‘No’ to each item. The Yes response to any item is indicative of anxiety. On the basis of scores obtained on the inventory, the individual may be classified into five categories i.e, extremely high anxiety, high anxiety, normal anxiety, low anxiety and extremely low anxiety. An individual with an extremely high score of above the 75th percentile may be regarded as hyper-anxious individual. His personality is complicated and he may be in need of counseling and psychotherapy. The extremely low scores, below 25th percentile, may indicate the person as under motivated and sluggish. The middle group of scores would represent essentially normal individual.

2.13 Demographic Data Sheet:

Information about age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family relations, career (decided/undecided), sensitivity and self identity was obtained from the Goan adolescents in the form of responses to the data sheet provided to them. Refer appendix A1 for demographic data sheet.
2.14 Psychological Intervention:

During the course of the research study questionnaires pertaining to achievement motivation, self-esteem, emotional maturity, anxiety, and parent-child relationship were administered to the undergraduate adolescents of randomly selected colleges (at pre test phase) and were divided into control and experimental groups. Those adolescents in need of counseling were identified by the researcher and counseling interventions were given to the experimental group in the following way.

Those adolescents who had low achievement motivation were dealt with using behavioural therapies. It was identified that most of the adolescents had magnified distorted perceptions of their potential and capabilities, through counseling sessions these distortions were diffused using cognitive behaviour and rational behaviour therapy. Through the use of psycho analytic therapy, adolescents were helped to maintain an analytic frame work. Expressive therapies such as drama therapy and creative writing were also used. All these techniques used helped the adolescents enhance their achievement motivation.

Adolescents having lower self-esteem were dealt with using affectively oriented therapies. Pscyhoanalytic therapies involving free association helped the adolescents open up freely the problems hindering achievement. Adolescents centered therapy played a major role in helping the adolescents to understand her inner strength and potential which was subdued due to negative life experiences. Use of existential and logotherapy helped the adolescents gain a clearer self awareness and understanding toward the establishment of a new being in the world of competition. Self talk also helped the adolescents gain self worth. Use of gestalt therapeutic experiments helped the adolescent deal with all the life threatening encounters about
oneself and come to terms with reality, thereby gaining confidence and enhancing self-esteem.

Those having unstable emotional maturity were helped by using cognitive behaviour therapy, in which the adolescents were trained to deal with their negative emotions, wishful thinking, avoidance and self blame. Psychoanalytic technique of dream analysis helped the adolescents understand how the unconscious mind works; this also helped the adolescents distort false perception about oneself and others. Gestalt therapeutic experiments helped the adolescents unwind the hidden self through the use of empty chair techniques, visualization and mental imagery techniques that helped the adolescents relax and take control of their emotions. Mental rehearsals helped the adolescents to be more self confident. Use of expressive art therapies fostered awareness, encountered emotional growth and enhanced their relationship with others. Use of prayer, relaxation therapies and meditation helped the adolescents defuse turbulent emotions; remain calm in the face of adversity, thereby being peaceful and cheerful. The use of all the above intervention helped the adolescents enhance their emotional maturity.

Adolescents having low scores on positive dimensions, and high scores on negative dimensions of parent-child relationship scores were helped with the use of cognitive therapy to change their dysfunctional thinking and behaviour. Use of gestalt therapy through various experiments helped the adolescents to understand the reason for their faulty parental behaviours, which helped the adolescents change the perception of their parent’s behaviour. Use of transactional analysis helped the adolescents understand how our life drama is played; it also helped change the patterns of behaviour or ego states. Adolescents were also made to understand the impact games and rackets, and how to change these behaviours. Bowen system
therapy that includes the use of Genogram helped the adolescents gather family history, track and correct the relationship problems existing in the family.

Adolescents having high scores on anxiety were helped with the use of various behavioural therapies such as systematic desensitization, relaxation, modeling etc. Assertive training was also given to overcome their feelings of guilt. Mental imagery exercises with relaxation helped adolescents stay calm and relaxed in the face of adversity. Biofeedback training enhanced relaxation response, expressive therapies such as music, art, poetry and play therapy also played a major role in reducing anxiety among adolescents.

However the above stated method of counseling is quite flexible to make it suitable for the adolescent personality and the problems from which they are suffering. In view of this after the data collection at the pre test phase the identified adolescents of experimental group were given this counseling intervention.

### 2.15 Statistical Analysis of Data:

The data collected from both experimental and control group were thoroughly screened. In case of experimental group only adolescents who underwent the psychological intervention were retained. The other half constituted of the control group who did not go thorough psychological intervention. Further scoring was done for the responses obtained from both the groups and a comparison was made. The statistical tests that were employed to test the formulated hypotheses are described below.
2.15.1 Statistical Techniques Applied:

The following statistical techniques were applied to analyse the scores obtained to verify the hypotheses and also their specific forms.

- Paired ‘t’ test for dependent samples
- ‘t’ test for Independent samples
- Stepwise Multiple Regression Analysis.

2.15.1.1 Paired ‘t’ Test for Dependent Sample

Paired ‘t’ test for dependent samples was applied when the same sample is studied in the pre test and post test phase to compare their means. Hence, the paired observations mean difference and standard deviation was calculated for computing the test statistic ‘t’. In the present study, this test was applied to test the Ha_1 and Ha_2 as shown.

- Comparison of control group across two phases of testing i.e. from pre test to post test (Ha_{1,1} to Ha_{1,5})
- Comparison of experimental group across two phases of testing i.e. from pre test to post test (Ha_{2,1} to Ha_{2,5})

2.15.1.2 ‘t’ Test for Independent Samples:

‘t’ test for independent samples was applied for comparison of means between two different samples. In the present study this test was applied for comparison between control and experimental groups at both the phases of testing i.e. at pre test and post test. This test was applied to test Ha_3 and Ha_4
2.15.1.3. Stepwise Multiple Regression Analysis:\(^3\):

This technique is applied for determining the relationship of multiple predictors on one side and a single criterion on the other. In this method the regression of \( Y \) (dependent variable) on all independent variables \( (X_1,X_2,X_3,\ldots,X_n) \) is calculated.

In the present research, this analysis was performed to study the influence of demographic factors, such as age, gender, faculty, birth order, early background, type of family, parental education, occupation and income, health status, academic performance, type of stay, parents’ favourite, family relations, career(decided/undecided), sensitivity and self identity of Goan adolescents contribute significantly to their achievement motivation, self-esteem, emotional maturity, parent-child relationship and anxiety.

The specific hypotheses \( H_{a5,1} \) to \( H_{a5,5} \) of the main hypotheses \( H_{a5} \) were tested and verified using this analysis.