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A study and analysis of research methodology towards varied principles, procedures and practices on psychological values

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Abstract
The study aimed to explore the psycho-social correlates of suicidal ideation among adolescents, focusing on family environment, psychological distress, cognitive style, and gender differences. Suicidal ideation has emerged as an alarming mental health concern among adolescents worldwide, reflecting the growing need to understand its underlying determinants. The rationale for the study stemmed from the rising prevalence of suicidal thoughts in this age group and the lack of comprehensive research integrating familial, psychological, and cognitive aspects simultaneously.
A sample of 300 adolescents (150 males and 150 females), aged 14-17 years, was selected from co-educational CBSE schools in Ghaziabad city using random sampling. Standardized tools were administered, including the Family Environment Scale (Bhatia & Chadha, 2015) [1], Cornell Medical Index Health Questionnaire, Cognitive Style Inventory and the Suicidal Ideation Questionnaire. The study adopted a correlational design, and data were analyzed using correlation and multiple regression analysis to determine the predictive influence of independent variables on suicidal ideation.
Preliminary analyses revealed significant associations between family environment dimensions (especially cohesion, conflict, and acceptance-caring), psychological distress factors (notably depression and anxiety), and suicidal ideation. Cognitive styles also played a moderating role, with intuitive and integrated styles showing differing patterns of association. Gender differences were evident, indicating that females reported higher levels of psychological distress and suicidal ideation compared to males. The findings underscore the multifactorial nature of suicidal ideation among adolescents and emphasize the importance of family dynamics, emotional well-being, and cognitive patterns in prevention and intervention strategies. Future research should focus on longitudinal assessments and family-based counseling interventions to mitigate adolescent suicidality.

Keywords: Suicidal ideation, adolescents, family environment, psychological distress, cognitive style, gender differences, mental health, multiple regression analysis

Introduction
Research methodology is a blueprint to initiate a long and systematic process in a sequential way. It helps to understand the variables in a scientific manner. It guides to frame an expected solution to the problem to study on the basis of literature gap identified in previous chapter. It leads the way to all objectives to be framed and studied for the problem, postulated. “Methodology is a science, indicating towards varied principles, procedures and practices that are at the center of empirical research”.
In this chapter, sample, it’s technique, size, tools used, way of collection of the data, statistics used for analyses, were being considered as to study the problem. And also to explore more insight as per this scientific prototype to resolve the problem in a productive and insightful manner. Before proceeding to methodology, would like to share the views why researcher opted these variables and theme to study.

Rationale
As this is very apparent to each and every person and to each and every corner of the world not only our country, that if new and upcoming generation is coming to replace the older population then definitely it’s been noticed and expected as to be perfect, to be manageable, to be clear with all thoughts and behavior to handle situations in life but in a better way than

their ancestors. But when the data were seen and evaluated then the real scene is really disturbing and brings Goosebumps that how would be the picture of the world or the future with this type of thinking and behavior in which an adolescent when unable to overcome challenges, opt to end his/her life. This is alarming for parents, teachers, society, government and for new generation as well. This age group pulled researcher's attention as this is the transitional stage which carries so many physical and mental changes that generates difference among them physically and mentally also. If we see its growing aspect then this is a blooming stage but in place of blossoming why they are moving towards self-destructive thinking and behaviors. When researcher observed the literature done so far, it only increases disappointment with the increasing rate of prevalence of suicidal ideation and thoughts among adolescents. At one hand information created worry but on the other hand this literature helped to ruminate that how it can be controlled and improved. From previous researches and literature so many factors have been noticed to understand and control this menace. It's been noticed that different family factors were studied but there was something which researcher was not able to find, like, factors related to the relationship aspect, personal growth aspect within a family or system of a family which used to be followed differently in each family. These dimensions help us to easily handle things and behavior when it's clear that which part of a family is being affected and necessary to be focused to improve the situation within a family.

In the same way past literature conveyed to consider psychological well-being of this age group as due to so many factors around and within it's get afflicted with negative emotions which impacts a lot at this stage of development. There are so many emotions that affect the behavioral aspect of a person in day-to-day routine so very flaring. When these all factors come along and affect the adolescents who are already at growth stage, they start noticing even interpreting the things happening around. As per literature some adolescents reacts negatively some reacts positively so its again pull attention that there is something different which keeps this difference among them. So, thinking goes directly toward the cognitive process. Why some are so casual and some are so particular. When related literature was reviewed then evidences showed that decision taken by adolescents was affected by brooding and rumination so the researcher tried to add one more variable which seemed very relevant to thinking and decisive aspect. Cognitive styles were taken to explore in terms of this broad ranging reflection that badly bereft adolescents from life and lively spectrum. So as a whole when it was screened, then the picture came to researcher to work with familial aspect, psychological aspect in which researcher kept stress related factors and cognitive aspect as well with a genuine difference of male and female with this particular age group.

Statement of the problem

In the present work, researcher formulated a problem as below:-

"To study the psycho-social correlates of suicidal ideation among adolescents".

Objectives

- To study the role of Family Environment in predicting suicidal ideation.
- To study the role of Psychological Distress in predicting suicidal ideation.
- To study the role of Cognitive Style in predicting suicidal ideation.
- To study the role of Gender Difference in predicting suicidal ideation.

Hypotheses

On the basis of research findings previously done in this area and opinion of the experts in the field, the following hypotheses were formulated for empirical testing:

Family Environment would contribute significantly to predict suicidal ideation among adolescents in terms:-

- Cohesion
- Expressiveness
- Conflict
- Acceptance & caring
- Independence
- Active-Recreational Orientation
- Organization
- Control

Psychological Distress would contribute significantly to predict suicidal ideation among adolescents in terms:-

- Inadequacy
- Depression
- Anxiety
- Sensitivity
- Anger
- Tension

Cognitive Style would contribute significantly to predict suicidal ideation among adolescents in terms:-

- Systematic Style
- Intuitive Style
- Integrated Style

Gender Difference would contribute significantly to predict suicidal ideation among adolescents.

Variables of the study

- **Independent variables:** In the present study, four different but important factors, which plays a salient role in an adolescent's life were evaluated and analyzed. These four were known as family environment, psychological distress, cognitive style and gender difference.
- **Family environment:** A family is a place which use to modulate and unify its members through its different ways and perspective to manage them all. It is an institution that keeps its responsibilities on its priorities to bring up all the new members like it's children. It also has an intensive effect on its members like adolescents' mental framework through it's different dimensions. Three of those dimensions has been studied in this research. These were-
- **Relationship Dimensions:** Under this dimension, Cohesion, Expressiveness, conflict, acceptance and caring were studied.
- **Personal Growth Dimensions:** Under this dimension, Independence and Active-Recreational Orientation were studied.

- **System Maintenance Dimensions:** Under this Organization and Control have been studied.
- **Psychological Distress:** Under this factor, this study has included inadequacy, depression, anxiety, sensitivity, anger and tension. These all factors were studied with regard to suicidal ideation among adolescents. How many of these really significantly affecting adolescents' suicidal ideation, were explored and analyzed.
- **Cognitive Style:** Cognitive style means thinking, judging, recollecting and storing information to take decision in daily life requirements. This works as an intensifier behind every interest of daily life. It is the only factor because of which a person thinks and behave differently to the same environment. So it also affects the thinking process of adolescents, how they are perceiving their situation and making judgments and inferences about it. This study has analyzed adolescents with the perspective of their different cognitive styles. Under this factor three styles; systematic style, intuitive style and integrated style had been studied.
- **Gender Difference:** In the present work, researcher focused on gender as a factor which can affect the suicidal ideation of an adolescent. Gender here refers to Male and Female adolescents. Researcher had approached 300 students in which 150 were male and 150 were female adolescents.
- **Dependent Variable:** In this present work, Suicidal Ideation was focused to be studied as an outcome of above-mentioned variables.

Research Sample

Sampling is a way to study the relevant and focused area of population to which researcher intended to take in research. It helps to take representative part of that specified population. In this study adolescents within the age group of 14 to 17 had been taken and studied. Total number of adolescents were 300, in which 150 were girls and 150 were boys from C.B.S.E. Board of schools, Ghaziabad city. All the schools were co-education schools having both male and female students though with varied proportion. All the schools were of more or less same school environment and students belong largely to same socio economic background. Below is the list of schools, which were followed to study these adolescents.

- **J.K.G. International School:** Male-43, Female-17
- **Bhagirath Public School:** Male-14, Female-11
- **Kendriya Vidhyalaya:** Male-11, Female-50
- **M.P.S. Public School:** Male-11, Female-11
- **L.K. International School:** Male-32, Female-22
- **D.P.S. Rajnagar:** Male-32, Female-11)
- **Bal Jyoti Public School:** Male-7, Female-28)

Tools used

To study and analyze the adolescents, specified in the present work, researcher used tools mentioned below:-

- Family Environment Scale by Harpreet Bhatia and N.K Chadha.
- Cornell Medical Index Health Questionnaire by NN Wig, D Pershad, SK Verma.
- Cognitive Style Inventory by Praveen Kumar Jha.
- Suicidal Ideation Questionnaire by William M Reynolds.

These tests' particulars are as following:-

Family Environment Scale

This scale was prepared by Dr. Harpreet Bhatia and Dr. NK Chadha (2015) [1]. This scale is grounded on Family Environment Scale of Moos (1974). This is focused on three dimensions and under those dimensions few different factors (sub-scales) had been taken to study the age range of 17 to 50 years. These dimensions and sub-scales are as followings:-

Relationship Dimensions

This is the dimension which was studied through four different factors as following:-

- **Cohesion:** As per current tool, the feeling and sense of help, support and responsibility towards one another in a family has been considered as cohesion.
- **Expressiveness:** This refers to boundaries under which a family member is considered and expected to show off his or her feelings, thoughts thoroughly and straight forward towards other family members without any objection.
- **Conflict:** It shows the degree of disagreement and aggression among family members which they can be evinced towards each other.
- **Acceptance and Caring:** This refers to the magnitude of unconditional love, possessiveness, care and acceptance toward each other in a family.

Personal Growth Dimensions

- **Independence:** This shows the freedom of a family member to discuss, openly express and to decide anything as per their own requirement and convenience.
- **Active-Recreational Orientation:** As per this test, this is the degree of being active in social and cultural activities which require participation and exposure to it. This also refers to the inclination of a family member towards such an event which require something new and specific effort.

System Maintenance Dimensions

- **Organization:** This shows the compass of a system or hierarchy that is followed in a family while doing any plan, related to any event or of bearing responsibilities.
- **Control:** This is demarcation, which is generally set in a particular family as per their own ways and culture.
- **No of Items:** In this test total number of items were 69, divided into eight different parts, 13 items to Cohesion, 9 items to Expressiveness,12 items to Conflict, 12 items to Acceptance and Caring, 9 items to Independence, 8 items to Active-Recreational Orientation, 2 items to Organization, 4 items to Control.
- **Scoring of Family Environment Scale:** This scale's scoring was done in two ways. All sub-scales were scored according to positive and negative statements as following-

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive	5	4	3	2	1

Negative statements were scored as following

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Negative	1	2	3	4	5

Reliability of FES-BC: For the present scale, reliability was established by Split-half method and reliability coefficient was estimated through Spearman-Brown Prophecy formula. So, the all sub-scales reliability coefficients are as following-

Sr. No.	Sub-Scales	Reliability Coefficients
I.	Cohesion	0.92
II.	Expressiveness	0.88
III.	Conflict	0.84
IV.	Acceptance and Caring	0.86
V.	Independence	0.70
VI.	Active-Recreational	0.48
VII.	Orientation	0.75
VIII.	Organization	0.48
	Control	

- **Validity of FES-BC:** For the validity of the present test, eighteen expert's opinion and decision was followed. So, it was established as Face and Content validity as per the decision of experts assigned to this test. And their Qualitative norms were developed.
- **Cornell Medical Index Health Questionnaire:** This scale was translated and used in Indian context by N.N. Wig, Dwarka Pershad and SK Verma (2002). In the present study only M to R section of this questionnaire was used to measure psychological distress. This M to R section was analogous or corresponds to the following areas-

M-Inadequacy, N-Depression, O-Anxiety, P-Sensitivity, Q-Anger, R-Tension

- **Inadequacy:** As per this tool, inadequacy means, a person's uncertainty and perplexion every time in behaving, taking decision or doing something at public place or privately.
- **Depression:** Here depression means sad, lonely and useless feeling, doesn't matter in public or private place and alone or in mass gathering. "A negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency that interferes with daily life. Various physical, cognitive, and social changes also tend to co-occur, including altered eating or sleeping habits, lack of energy or motivation, difficulty concentrating or making decisions, and withdrawal from social activities. It is symptomatic of a number of mental health disorders".
- **Anxiety;** An emotion characterized by apprehension and somatic symptoms of tension in which an individual anticipates impending danger, catastrophe, or misfortune. The body often mobilizes itself to meet the perceived threat: Muscles become tense, breathing is faster, and the heart beats more rapidly".
- **Sensitivity:** This refers to the feeling of shyness and get affected early by criticism or praise. Also to feel perplexed because of this "Awareness of and responsiveness to the feelings of others. Also the susceptibility to being easily hurt or offended".
- **Anger:** This is the feeling of short-temperedness and annoyance if things go out of control. "An emotion characterized by tension and hostility arising from frustration, real or imagined injury by another, or perceived injustice. It can manifest itself in behaviors designed to remove the object of the anger (e.g., determined action) or behaviors designed merely to express the emotion (e.g., swearing)".
- **Tension:** As per APA, "this is a physical and psychological strain, which carries discomfort, uneasiness and also a drive to find solace from this aforesaid state through some way of behaving or speaking to someone".
- **No of Items:** This questionnaire has total 195 questions in which 51 questions, relevant to our present research was used. In this M section has 12 items, N section has 6 items, and O, P, Q and R sections consist of 9,6,9,9 items respectively.
- **Scoring of CMIHQ:** In this test, each section items carries one mark for yes and 0 mark for no. so every "Yes" was counted as scores.
- **Reliability and validity of this test:** This tool is extremely correlated with its original English version by Broadman, Erdmann and Wolff (1949). This correlation was 0.77 to 0.87.
- **Cognitive Style Inventory:** This tool was developed by Dr. Praveen Kumar Jha (2010). It's roots are existing in Martin's (1983), concept of cognitive style. This questionnaire is having 40 items in which 20 items corresponds to systematic style and 20 items corresponds to intuitive style. And if the response of the subject is inclined either of the side, depends and differs individually, then they can be understood accordingly. For example, if subject is having high scores on both the scale then they had been called having, Integrated style. If they are low on both the styles then they were called as having undifferentiated cognitive style. And if they were average on both the style then the subject seemed to have split-style. The reliability of the test was judged by two methods, Split-half method and Test-retest method. It was.653 and.39 respectively. If we look for the validity, it was measured by Judges Validity, Concurrent validity and internal validity. So the sentences having acceptance with maximum number of judges and was having high discriminative power was kept in the test. Also, it's correlation coefficient in concurrent validity was.262 which was found sufficient enough to be significant.
- **Systematic Style:** As per this test, the person, who is handling things in a proper step by step manner and evaluates all the approaches before taking any decision to solve any problem, been considered here following systematic style. This style person takes final decision only after empirically reviewing all facts.
- **Intuitive Style:** As per this test a person having this style works in an incalculable way when solving a problem. That person mostly relies on his or her own way of thinking which is obtained through the prior

experience. He/she switches to options quickly without any clarity.

- **Integrated Style:** This is the style through which a person works more proactively as he/she always try to observe problems and also their potential solutions. They work always more advantageously over the last to do things in a better way. As per this test such person are known as "problem seekers" because they use to spot the issues at different place and their solutions as well to keep things functioning in a better way.
- **No of items:** This test consisted 40 items in which 20 items referred to systematic style and 20 items referred to intuitive style.
- **Scoring of the test:** Scoring was done through five-point Likert Scale format. Response categories followed were as mentioned below:-

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

So as per this format a candidate has to tick on the relevant category of the statement which is applicable to her or him. Then those all responses were noted on sheet where two columns are divided into S and I. S for systematic and I for intuitive cognitive style. Then adding up all those responses and interpreting them as per the manual. If candidate has marked first response (strongly disagree) then he had been given 1score and if fifth response (strongly agree) then 5 score was given. Then as per categories it was added up and analyzed which helped in interpreting and deciding the style of the sample collectively weather it was systematic, intuitive or integrated cognitive style. Candidate who scored above 81 on systematic style and below 61 on intuitive style would be classified as a person of systematic cognitive style. On another side of the continuum if person has scored below than 61 on systematic style and above than 81 on intuitive style then is use to be referred as a person with intuitive cognitive style. Above this all if he/she has scored more than 81 on both the categories then referred as a person of integrated cognitive style.

- **Reliability of the Test:** The test reliability was estimated by two ways; one is Split-half method and another is Test-retest method. For Split-half method first of all product-moment co-efficient of correlation was used for two parts then Spearman-Brown Prophecy formula was applied to know this reliability which wasfound.653 as a full-length split-half reliability of CSI.
- Another reliability was Test-retest reliability which was found.39.Its temporal consistency was also noticed through the correlations which was highly significant.
- **Validity of the Test:** The validity of the test was examined by three ways: Judges Validity, concurrent validity and internal validity. Before item-analysis all items were judged by six Judges and majority agreed items were retained only. Another was concurrent validity which was estimated through correlation with Martin's CSI. This was.262 which was satisfactorily significant. One more was also done as internal validity through discriminative power of all items separately with reference to phi-coefficient correlation and Chi-square for test construction.

Suicidal Ideation Questionnaire

This test was developed by William M Reynolds (1988). This test measure one aspect of suicidal behavior which is the thought perspective. Thoughts that work as a base for suicidal behavior. This test has a good predictive utility to identify and evaluate adolescents for their destructive thoughts that can be injurious to themselves. This test was applied with an inquisitive form which is known as "About My Life" in place of suicidal ideation questionnaire. This test consists of two different forms. One is for senior high school students which is known as SIQ form. Another is for junior high school students which is known as SIQ-JR. In this study only senior high school form had been used. This test responses are based on 7 point scale.

- **Number of Items:** This SIQ form is comprised of 30 items which were based on seven-point scales. Although there is not specific order of severity. These all items carries some specific clustering like "items content ranges from general thoughts of death and wishes that one were dead (e.g., items 1.6.12) to serious and specific thoughts of suicide that indicate distinctive risk factors (e.g. 2, 3, 4, 7, 9). The items in SIQ are designed to dig deeply, most of the thoughts related to suicidal ideation but not including all suicidal thoughts and cognitions."
- **Scoring:** This test scoring is based on seven-point scale. In which a scoring key is used to place on the responses of the students on sheet and marked as per the key. The scores on each item ranges from 0 to 6, which carries the meaning of "never had this thought" and "had the thought almost every day" respectively. SIQ total scores as per this scoring highest goes to 180 and lowest goes to 0. In SIQ almost 27 to 30 items need to be attempted to be in the validity check of the measure. If any item skipped or not attempted then scoring was done on prorated bases with the following formula.

$$\frac{\text{SIQ} \times 30}{\text{Number of items completed}}$$

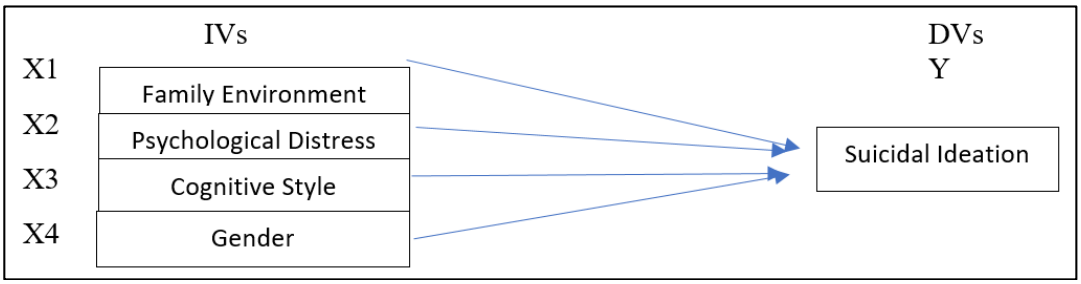
In this SIQ if any adolescent scores 41 or more than that then he or she is considered for further observation and consideration in terms of potential and significant psychopathology and risk of the suicSide in future.

- **Reliability:** In this test internal consistency reliability was computed through coefficient alpha (r_{α}).For total sample reliability coefficient by grade was.971 in SIQ. Also, the test-retest reliability was.72 which is moderate and consistent with the nature of SIQ.
- **Validity:** For this test, content validity and construct validity were measured and established. Content validity formally was described by the expert systems of the classifications such as DSM-IIIR and RDC. The construct validity of the test was estimated through the correlation with different established tests like RADS, BDI, and CDI. This was ranging from.55 to.63 on RADS across samples. On BDI and CDI it was ranging from 65 to.70 overall which was supporting to the validity of SIQ.

Research Design

Research design is a layout to guide a researcher for various research proceedings to sail into a flow until it's done. It helps to do investigation in a systematic manner. It's like a prototype to help the researcher to imagine and move ahead with a positive mindset about sample, technique used and its data. It carries details of objectives, hypotheses, variables and data, how it would be followed till the analysis of the data collected, done. The basic purpose of research design is to save time, cost and effort to maximize the productivity of the work through relevancy. It guides the researcher to control the whole process in a particular manner so that only planned and intended effects can be studied.

This current work is based on the understanding of psycho-social correlates of suicidal ideation among adolescents. In this research four independent variables were taken as predictor variables and one dependent variable was taken as criterion variable. Four independent variables namely family environment, psychological distress, cognitive style and gender were taken as principle variable while Suicidal Ideation was taken as dependent (criterion) variable. Family environment has eight factors in itself, these were cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization and control. In the same way Psychological distress had been studied under six factors like inadequacy, depression, anxiety, sensitivity, anger and tension. Cognitive Style had been studied through its three types like systematic cognitive style, intuitive cognitive style and integrated cognitive style. Another factor under this investigation was gender which was studied along with other predictor variables. This research was designed to explore the relationship of these eighteen variables with suicidal ideation and also to find out which factor can best predict suicidal ideation in adolescents. The research design followed by the researcher has been drawn below:-



Procedure

Procedure tells about the data collection through implementation of different questionnaire, scale and inventory on selected sample. Data collection is a systematic gathering of the relevant information to be studied under the research objective and purpose. When the data is collected directly from the sample then its known as Primary Data. In the present study data were collected directly from the adolescents. For conducting this study, first of all a list of C.B.S.E. schools was prepared from the area selected for the study, in Ghaziabad city. Then schools were approached through proper channel and permission were taken from the principals or concerned authority to collect the data. Data were collected from the schools who were ready to participate in the research. After permission of the date and timings, selected schools were accessed one by one. Class teachers provided roll list of the students in different sections between the age group required for the study. Researcher selected the students on the basis of randomization and proportion of girls and boys was also taken care of. The data were collected in two sessions in which four different questionnaires were administered with a break of 15 minutes between the two sessions. Students were briefed about the research and a conversation-based discussion was done to form rapport with all of them. During this discussion, few students had shared their opinion about suicide cases which they heard unfortunately that time because of a deadly game, named "Blue Whale". Before, starting to attempt or respond these questionnaires, all the students had been given a consent form with personal data regarding their participation in the current research. They all were asked to read and sign and questions they had regarding the same, were clarified. Instructions were given as per the manual of the questionnaires. Data were collected in two sessions on same day. First of all, Family Environment Scale then Cornell Medical Index-WPV were given. As they had completed their responses on one test a brief break of five minutes was given to them and then they were briefed about the second test and again instruction were given and finally taken back after all the students completed their test. Second session was stared after 15 minutes break and after all the students settled again Cognitive style inventory was given to them, instructions were given and when students completed their test researcher collected the test and after 5 minutes short break finally SIQ was administered to measure the suicidal ideation of the adolescents. Researcher was very vigilant to see whether any student show any sign of discomfort or having any query. This all was done with the help of teachers in the respective school with the permission of the principal. Researcher thanked students for their sincere involvement and active participation in the research and also thanked teachers for their support and co-operation. Then all the collected sheets were scored and analyzed further as per the manuals.

As the nature of the present research was very sensitive so after completing the scoring, follow-ups were also taken with students through the teachers, mentors and counsellors. Because the researcher was not permitted to contact directly to the student in sensitive cases. So it was handled through the counselors and mentors. It was also informed to the schools that if they required any help then the researcher was also available to help and counsel to the students.

In one of the schools, principal and management even arranged for one day follow-up session to connect and listen to the problems of 10th and 12th grade students and also to counsel them.

Few students tried to reach out on personal contact number to discuss their problems then as per need school counselors were contacted and updated to handle cases on one to one bases.

Statistical Analysis

In this current study statistical analysis was done through correlation and multiple regression. "Multiple regression is a method for studying the effects and the magnitudes of the effects of more than one independent variables on one dependent variable using principles of correlation and regression".

As per Kothari, Multiple Regression is a technique which envision the variance in dependent factor on the basis of the covariance of all together measured independent factors. The level of the dependent factor can be predicted through multiple regression analysis model with the reference of the changes in multiple independent factors.

On one hand the current research studied four independent variables which were Family Environment, Psychological Distress, Cognitive Style and Gender on another hand one dependent which was Suicidal Ideation. These all variables were evaluated through correlation and multiple regression analysis to determine their magnitude that how much they may affect and contribute in predicting suicidal ideation. This statistical method was selected on the basis of the objectives of the research. Results and findings have been discussed in the very next chapter.

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