CHAPTER III
RESEARCH METHODOLOGY

Introduction

Research is systematic and organized effort to investigate a specific problem that needs a solution. It contributes to the general body of knowledge. It also corrects human knowledge. Social research now can be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalization, principles or theories resulting in prediction and possibly ultimate control of events in society. It attempts to answer or solve social problems.

According to P.V. Young: “Social research is a scientific undertaking which by means of logical methods, aim to discover new acts or old facts and to analyze their sequences, interrelationships, casual explanations and natural laws which govern them.” The Advanced Learner’s Dictionary of Current English lays down the meaning of research as “a careful investigation or inquiry especially through search for new facts in any branch of knowledge.” Research is an academic activity and as such the term should be used in a technical sense.

Social Work Research

Social work research is the application of research methods to solve problems that social workers confront in the practice of social work. It provides information that can be taken into consideration by social workers prior to making decisions that affect their clients, programmes or agencies such as use of alternative intervention techniques or change or modification of programme/client/objectives and so forth. The designing of research problems, data collection and its interpretation will have to be attempted in a manner as would be useful to professional social work which would add new knowledge to the social work theory and practice and improve the efficiency of professional social workers.

Social work research process is regarded as the systematic use of research concepts, methods, techniques and strategies to provide information related to the objectives of social work programmes and practices. Thus the unit of analysis of social
work research could be individuals, groups, families or programme of the agency. That is, social work research, typically focuses on assessment of practitioner’s work with individuals, groups, families, communities or appraisal Social Work Intervention with Communities and Institutions of agencies or programmes that involve the continued efforts of practitioners with many clients. As such, the research design, data collection and analytic strategies in social work research vary as a function of unit of analysis and programme of agencies of social work practitioner.

Social work research is the use of the scientific method in the search of knowledge, including knowledge of alternate practice and intervention techniques, which would be of direct use to the social work profession and thus enhance the practice of social work methods. Under social work research, varieties of evaluative researches are undertaken. Some of the researches are on impacts or effects, efficacy and effectiveness. Evaluation of agencies and its projects and programmes are some of the specialized areas of social work research.

Research is, thus, an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment.

**Research Methodology**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In this we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research methods/techniques but also the methodology. Researchers also need to understand the assumptions underlying various techniques and they need to know the criteria by which they can decide that certain techniques and procedures will be applicable to certain problems and others will not. All this means that it is necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem.

Methodology is defined “as the study of methods by which we gain knowledge. It deals with the cognitive processes imposed on research by the problems arising from
the nature of its subject-matter. "Methodology thus prepares the investigator to adopt techniques to neutralize the effects of such hurdles. Research methodology is the description, explanation and justification of various methods of conducting research.

The search for knowledge through objective and systematic method of finding solution to a problem is research. The systematic approach concerning generalization and the formulation of a theory is also research. As such the term ‘research’ refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions towards the concerned problem or in certain generalizations for some theoretical formulation.

Methodology, does not describe specific methods despite the attention given to the nature and kinds of processes to be followed in a given procedure or in attaining an objective. When proper to a study of methodology, such processes constitute a constructive generic framework; thus they may be broken down in sub-processes, combined, or their sequence changed. As such, methodology may entail a description of generic processor, metaphorically, may be extended to explications of philosophically coherent concepts or theories as they relate to a particular discipline or field of inquiry. By similar reasoning methodology refers to the rationale and the philosophical assumptions that underlie a particular study or a particular methodology.

**Statement of the Problem**

Adolescence is a period of not only development but also adjustment. During this period the girls get awareness of pressures on them and the necessary relationships. They even develop decision making ability. They want to build personal relationships with someone with whom they can share their hopes and fears, joys and sorrows and their secrets.

According to World Health Organization (WHO) Mental Health includes "Subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others." WHO further states that the well-being of an individual is encompassed in the realization of their abilities, coping with normal stresses of life, productive work and
contribution to their community. However, cultural differences, subjective assessments, and competing professional theories all affect how "mental health" is defined. A person struggling with his or her behavioral health may face stress, depression, anxiety, relationship problems, grief, addiction, ADHD or learning disabilities, mood disorders, or other psychological concerns. Counselors, therapists, life coaches, psychologists, nurse practitioners or physicians can help manage behavioral health concerns with treatments such as therapy, counseling, or medication. The new field of global mental health is "the area of study, research and practice that places a priority on improving mental health and achieving equity in mental health for all people worldwide". Some mental health clinics are now identified by the phrase behavioral wellness.

Evidence from the World Health Organization suggests that nearly half of the world's population is affected by mental illness with an impact on their self-esteem, relationships and ability to function in everyday life. An individual's emotional health can also impact physical health and poor mental health can lead to problems such as substance abuse. Maintaining good mental health is crucial to living a long and healthy life. Good mental health can enhance one's life, while poor mental health can prevent someone from living an enriching life. Behaviors could be direct reflection of their mental health. Self-destructive acts may take place to suppress emotions. Some of these acts include drug and alcohol abuse, physical fights or vandalism.

**Adolescents and Mental Health**

Many mental health problems emerge in middle adolescence. Poor mental health can have effect on the wider health and development of adolescents and is associated with several health and social outcomes such as higher alcohol, tobacco and illicit substances use, adolescent pregnancy, unwanted abortions, consequences of abortions, school dropout and delinquent behaviours. There is growing consensus that healthy development during childhood and adolescence contributes to good mental health and can prevent mental health problems. Enhancing social skills, problem-solving skills and self-confidence can help prevent mental health problems such as conduct disorders, anxiety, depression and eating disorders as well as other risk behaviors including those that relate to sexual behavior, substance abuse, and violent behaviour. Health workers
need to have the competencies to relate to young people, to detect mental health problems early, and to provide treatments which include counseling, cognitive-behavioral therapy and, where appropriate, psychotropic medication.

**Aim**

The aim of the present study is to analyze the impact of personality and home environment factors and its influence on mental health of adolescent girls.

**Objectives of the Study**

1. To assess the mental health status of adolescent girls.
2. To study and find out whether mental health issues give rise to physical and psychological disturbances.
3. To determine the factors affecting mental health and to find out its intensity on adolescent girls.
4. To understand the dimensions of personality of adolescent girls affecting their mental health.
5. To assess the influence of home environment and mental health of the respondents.
6. To understand coping strategies adopted by adolescent girls in dealing with psychological disturbances.
7. To offer suggestions from the perspectives of intervention among adolescents.

**Hypotheses**

To Kerlinger (1968) “Hypothesis is the most powerful tool man has invented to achieve dependable knowledge” (p. 27). It is a powerful tool for the advancement of knowledge because it serves as the working instrument or the tentacles of theory and a means for seeking solution to human problems. Hypotheses are derivable from theory and they serve as means through which theories are validated, revised or invalidated through research (Glassman, 2007). The researcher had formulated some null hypotheses.
They are as follows:

1. There is no significant difference in the Mental Health and Home Environment of the adolescent girls.

2. There is no significant difference in the Home environment and mental health of students.

3. There is no significant difference in the personality traits and mental health of the adolescent girls.

4. There is a significant difference in the educational qualification of the father and mental health of their wards.

5. There is no significant difference in the mental health of students based on their age.

6. There is no significant difference in the mental health of students based on their birth order.

7. There is no significant difference in the mental health of students based on the monthly family income.

8. There is no significant difference in the opinion of students on home environment based on their age.

9. There is no significant difference in the opinion of students on home environment based on father’s education.

10. There is no significant difference in the opinion on home environment of students based on the number of members at home.

**Title of the Study**

The title of the study is, Mental Health of Adolescent Girls.

**Research Design**

A research design is a logical and systematic plan prepared for directing a research plan. It specifies the objectives of the study, the methodology and techniques to be adopted for achieving the objectives. It constitutes the blueprint for the collection, measurement and analysis of data. Research design is needed because it facilitates the
smooth sailing of the various research operations thereby making research as efficient as possible yielding maximal information and minimal expenditure of effort, time and money.

The researcher had used descriptive research design in the study as the study is used to describe the factors of mental health and its influence on adolescent girls inspecting on their personality traits and their home environment. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual or a group. Those studies concerned with specific predictions with narration of fact that characteristics concerning individual groups or situations are example of descriptive research. The descriptive survey method is used in the present investigation. It describes the current position of the research work. It involves interpretation, comparison, measurement, classification, evaluation and generalization. All these direct towards a proper understanding solution of significant adolescent issues. This study describes the mental health of adolescents in the light of Personality and Home environment. It is conducted among plus two students who are studying in girls higher secondary schools of Palakkad district.

This chapter includes main sections like; design of the study and descriptions of tools. “A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.” In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Research design stands for advance planning of the methods to be adopted for collecting the relevant data and the techniques to be used for their analysis keeping in view of the research objectives. Design of the study is an essential part of a research project, because design provides a picture of what and how to do the work before starting. It has been determined from time to time that a suitable research design guards against the collection of irrelevant data and grate more economy. So in any research project, design provides the researcher a blueprint of research which dictates the boundaries of project and helps in controlling the experimental, extraneous error, variances of the problem under investigation etc.
This is a correlation study. It correlates mental health with home environment and personality of adolescent girls. The present chapter describes the design or plan of the study and highlights the details about the research procedure followed in conducting the study. As such, it is an important part of the research study and needs to be planned and carried out systematically to arrive at accurate judgements. It includes information about the population, the sample frame, the nature and form of data collection, tools, methods of collecting data and statistical techniques used for analysis of data etc. In order to achieve the objectives and the stated corresponding hypotheses the following plan of the study has been followed. Method of research is also determined by the theory and objectives of the problem to be studied. The problem to be investigated for the present study concerns with adolescent girls in higher secondary schools in relation to their home environment, personality and mental health.

**Pilot Study**

Pilot study is a cardinal role in research that one must ‘try out’ or pilot test the questionnaire to find out whether it operates properly before using it in a research study. The following are some of objectives of a pilot study. A pilot study was conducted by the researcher as a preliminary step to get familiar with the topic. The researcher made a questionnaire with necessary details and interviewed some respondents to start the study. The researcher conducted the pilot study:

1) To examine the scope of the study.
2) To see whether necessary information can be collected.
3) To determine the method and tools of data collection.
4) To find out the availability of data.
5) To fix universe of the study.
6) To select the sampling design.
7) To identify weak and defective items.
8) To find out the discriminating power of each item.
To provide data needed to determine how many items should constitute the final form of the tool.

10) To decide the proper format.

Through the pilot study the investigator found out that there is ample scope for the study as the topic is relevant and also growing issue from every perspective.

Construction of the Questionnaire

The researcher referred various books, magazines and journals in order to understand various aspects of mental health of adolescent girls. Literature review enabled the researcher to gather more information regarding the adolescent and their various issues. The researcher was able to prepare the questionnaire on the basis of the literature survey.

Pre – Test

A pretest was carried out with Thirty - six respondents before carrying out the study. Certain modifications were made in the questionnaire after the pre – test and the modified questionnaire was used for the present study. It was conducted to test the effectiveness, relevance and applicability of the questions in the context.

Universe and Sampling

The universe of the research that the researcher had chosen for the study were all girl students studying in plus two classes in different schools in Palakkad city. Total number of higher secondary schools in Palakkad city is 25 comprising of government, special, un-aided aided minority, aided general and aided backward schools. Among the total 25 schools only 6 schools are not offering co-education and are girls schools, those school students is the population of the present study. Population of the study is 1440. The sample size of the study is fixed to 360. Robert V. Krejcie and Daryle W. Morgan (1970) gave a population sample-size guideline based on its calculated representation of its population. They have suggested that size of sample for population of 1400-1500 can be fixed between 302-306. To minimize chances of a sampling error, researcher decided to increase sample size to 360 (Table 1).
Sampling Design

Sampling design refers to the technique which is used for selection of the items for the sample in a research. Probability sampling is used in the study. Probability sampling is the method of sampling that utilizes some form of random selection which assures that different units in the population have equal probabilities of being chosen. Stratified random sampling is used in the present study. Stratified random sampling is a probability sampling technique, it is also known as proportional random sampling. This is a probability sampling technique wherein the subjects are initially grouped into different classifications such as age group of 15-17 years, income of the family, ownership of the school. Then, the researcher randomly finds out the final list of subjects from the different strata. It is important to note that all the strata must have no overlaps.

Researchers also employ stratified random sampling when they want to observe existing relationships between two or more subgroups. With a simple random sampling technique, the researcher is not sure whether the subgroups that he wants to observe are represented equally or proportionately within the sample. With stratified sampling, the researcher can representatively sample even the smallest and most inaccessible subgroups in the population. This allows the researcher to sample the rare extremes of the given population. With this technique, you have a higher statistical precision compared to simple random sampling. This is because the variability within the subgroups is lower compared to the variations when dealing with the entire population.

Because this technique has high statistical precision, it also means that it requires a small sample size which can save a lot of time, money and effort of the researchers. Researchers usually use stratified random sampling if they want to study a particular subgroup within the population. Within the strata, the researcher have used the lottery method for the purpose of finding out the samples for the study. It is also preferred over the simple random sampling because it warrants more precise statistical outcomes.
Table 1

Table Depicting the Samples

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of the school</th>
<th>School Strength</th>
<th>Strength of plus two girls</th>
<th>Sample break up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Govt. Moyan Model Girls HSS, Palakkad</td>
<td>232</td>
<td>116</td>
<td>58</td>
</tr>
<tr>
<td>2</td>
<td>Govt. Girls HSS Alathur, Palakkad</td>
<td>236</td>
<td>118</td>
<td>59</td>
</tr>
<tr>
<td>3</td>
<td>Cherupushpam Girls HSS, Palakkad</td>
<td>240</td>
<td>120</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>St. Therese HSS Shornur, Palakkad</td>
<td>244</td>
<td>122</td>
<td>61</td>
</tr>
<tr>
<td>5</td>
<td>Govt. Girls HSS, Nemmara, Palakkad</td>
<td>236</td>
<td>118</td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>LSN Girls HSS Ottapalam, Palakkad</td>
<td>252</td>
<td>126</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1440</strong></td>
<td><strong>720</strong></td>
<td><strong>360</strong></td>
</tr>
</tbody>
</table>

Tools of Data Collection

The researcher had adopted questionnaire method for the purpose of collecting data from the respondents. It was used to find out the mental health of adolescent girls in relation to their home environment and personality traits. The questionnaire consists of 4 parts. First part consists of personal profile and the second part consists of mental health inventory which consists of questions relating to mental health dimensions and it is 55 questions together.

Mental Health Inventory (MHI) (Jagdish & Srivastav, 1983)

Mental health inventory (MHI) developed by Jagdish and Srivastav (1983) was utilized to access positive aspects of mental health. This test can be used as a group or an individual test, for ages 15 and above, no time and age limit is enforced in the testing. Each items from 1 to 56 given in the test booklet to be rated on 4 point rating scale. It covers the following 6 dimensions of sound mental health


2. Perception of Reality (PR) – related to absence of excessive fantasy, ability to face and accept realities of life.
(3) Integration of Personality (IP) – indicates balance of psychological forces in the individual, includes emotional maturity, ability to concentrate at work and interest in several activities.

(4) Autonomy (AUT) – the actions of people are independent rater than dependant on other persons.

(5) Group Oriented Attitudes (GOA) – ability to work with others and ability to find recreation.

(6) Environment Mastery

(EM) – Efficiency in meeting situational demands.

Reliability of the Inventory

The reliability of the inventory was determined by 'split half' methods using odd even procedure (Table 2)

Table 2
Table Presenting Reliability Co-efficient

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Dimensions of M.H.</th>
<th>Reliability Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive self evaluation</td>
<td>.75</td>
</tr>
<tr>
<td>2</td>
<td>Perception of reality</td>
<td>.71</td>
</tr>
<tr>
<td>3</td>
<td>Integration of personality</td>
<td>.72</td>
</tr>
<tr>
<td>4</td>
<td>Autonomy</td>
<td>.72</td>
</tr>
<tr>
<td>5</td>
<td>Group oriented attitude</td>
<td>.74</td>
</tr>
<tr>
<td>6</td>
<td>Environment competence</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>Overall evaluation</td>
<td>.73</td>
</tr>
</tbody>
</table>

Construct validity of the inventory is determined by finding coefficient of correction between scores on mental health inventory and general health questionnaire (goldberg, 1978) it was found to be 54 it is note worthy here that high score on the general questionnaire indicates poor mental health. Two inventory scores yield positive correlation of (.57) revealing moderate validity. The test is scored with the help of manual. 4 alternative responses have been given to each statement i.e. always often,
rarely ad never. 4 scores to always, 3 scores to often, 2 scores to rarely and 1 scores to never, marked responses are to be assigned for true keyed (positive) statements where as 1, 2, 3 and 4 scores for always, ‘often’ rarely and never respectively in case of false keyed (negative) statements.

**Personality Inventory Scale (B.L. Dubey, P. Dwivedi and S. K. Verma, 1988)**

The Personality Inventory was constructed and standardized by B.L. Dubey, P. Dwivedi and S. K. Verma in 1988 and was used in this study. The Inventory consists of 50 statements. The Personality Inventory Scale is used to measure certain well known dimensions of personalities like

a. Extraversion

b. Psychotism

c. Emotional instability

d. Depression

e. Social Desirability

Among the 50 statements, the Extraversion statements are (No.) 9, 14, 19, 24, 34, 39, 44, 49.

Psychotism statements are (No.) 1, 3, 6, 8, 11, 13, 16, 17, 21, 28, 31, 33, 43, 48, 36, 37, 38, 41.

Emotional instability statements are (No.) 4, 20, 23, 40, 42.

Depression statements are (No.) 2, 7, 12, 18, 22, 27, 32, 46, 47.

Social Desirability statements are (No.) 5, 10, 15, 25, 26, 29, 30, 35, 45, 50. The reliability of this scale is 0.682.

The third part consists of personality inventory for the assessment of personality traits of adolescent girls and it consists of 50 questions and the fourth part consists of home environment inventory developed by Dr. SarlaJawa is adopted in this study. This scale is of Likert type and has items related to personal freedom, rapport with parents and siblings, interpersonal relations, for understanding the influence of home
atmosphere on the mental health of girls and it is 22 questions in number, in final version after the modifications.

The variables used in the study are independent variables and dependent variables. The various independent variables are age, class, educational qualification of parents, birth order, family income, size of the family and the number of siblings.

The various dependent variables used in the study are the home environment factors, Personality factors and also dimensions like decision making skill, confidence level, reality orientation, loneliness, rejection etc.

Analysis of Data

The analysis of the data is the most skilled task in the research process. It calls for the researchers own judgment and skill. Analysis of data involves the re-categorization of variables, tabulation, explanation and casual inference. One way tables or frequency tables and two way tables or cross tables were used for the purpose of analysis. The collected data were entered to a master sheet to make tabulation and analysis easier.

Analysis is the vital part of the study, because the findings, suggestions and conclusions of the study are mainly based on the analysis. The statistical tools applied in the present study were Mean, Standard Deviation, Chi-Square, t test, One Way Anova, Co-relation, Regression and Factor Analysis.

This provided the investigator with the data which is presented in the next chapter. The analysis and interpretation of this data is also demonstrated in the following chapters.

Scope of the Study

The present research tries to bring out the relationship of mental health and its influence on home environment and personality factors of higher secondary girl students. But any study, however, wide it may be, its scope cannot claim to be all inclusive and points out the scope for further investigation with other equally relevant variables. In an attempt for solution of the problem, new problems arise. It is from this point of view, some suggestions are being made for further investigation of some of the important issues that seem to originate from the present work.
1. The study can also be conducted with the sample of primary and senior secondary school students.

2. The study can also be undertaken to find the relationship and significance of difference among other cognitive and non-cognitive attributes.

3. Similar studies may also be taken to study the variables like socio-economic status, rural and urban etc.

4. A similar study can be conducted on a group of arts and science students.

5. A study of special group of students may be undertaken.

6. Comparative study can be conducted with reference to creative students and with different level of intelligence.

Problems faced by the Researcher

- Some respondents were absent on the day of returning the questionnaire.
- The researchers have to assure the respondents to maintain confidentiality as they were curious, shy and fearful.
- Some respondents were less interested in the research and hence some refused first to return back the questionnaire.
- At times the researcher also lost certain questionnaire as some of them were having incomplete information.

Limitations of the Study

- It is a time bound study.
- As the study has been done among small population, the finding cannot be generalized.
- The study only limited to girls schools and hence generalization on both genders cannot be made.
- This study is limited only to schools within Palakkad city, hence the result cannot be applied to all the schools in entire Palakkad district.
Operational Definitions of the Concept

Adolescent: Adolescent girls are those who are in the age group between 15 to 17 years of age of girl’s higher secondary schools in Palakkad. For the purpose of this study a girl student studying in class XII in any recognized or private school is considered as adolescent.

Mental Health: Mental health of adolescents were assessed by covering six main dimensions like positive self-evaluation, realistic perception, integrity of personality, autonomy, group oriented activity, environmental mastery.

Personality: Personality is the particular combination of cognitive, emotional, attitudinal, and behavioral response patterns of an individual reflecting in the following dimensions-extraversion, emotional instability, depression, social desirability, dimensions of personality, Competition, enthusiasm, innovation, leadership, maturity, mental health, morality, self-control, sensitivity, self-sufficiency, and social warmth.

Nature of the home environment: The encouragement, discouragement, understanding or negligence, imposition, scope for expression of one’s interests and wishes at home influence the development of child’s personality. Various areas of focus includes social isolation, personal freedom, Rapport with parents and siblings, interparental relations. Hence the nature of home environment is taken as a variable for study.

Chapterization

The thesis has been organized in the following way:

The first chapter deals with the Introduction of the study, its related concepts, and objectives of the study, need and significance of the study.

The second chapter deals with the Review of Literature.

The third chapter consists of the Introduction, statement of the problem, title of the study, research design, pilot study, construction of the questionnaire, pre-test, universe of the study sampling design, tools of data collection, statistical analysis of data, scope of the study, problems faced by the researcher, limitations of the study and the operational definitions.

The fourth chapter deals with the Analysis and Interpretation of the collected data.

The fifth chapter deals with Findings, Suggestions and Conclusions.

This is followed by Bibliography and Annexure.
Conclusion

Research Methodology is a systematic way to solve the research problem. Social work research focuses on or confines itself to select aspects of behaviour and alternate models of behaviour modifications. Social work research helps to find ways and means to enhance social functioning at the individual, group, community and societal levels. Social work research lays special emphasis on evaluation. This is one of the reasons that social work research is also understood as evaluative research. The procedures by which researchers go about their work of describing, explaining and predicting phenomena are called methodology. All the methods used by social scientists in their fact-finding mission constitute methodology. Research Methodology has many dimensions and research methodology constitute a part of the research. This whole chapter is engaged in employing research methodology which consist of certain scientific steps for successful execution and objectively. In this chapter the research design and sampling technique was given in detail. The procedure for construction and finalization of the tool was also described. The collected questionnaires were scored properly and suitable statistical analysis was carried out. The details of analysis and discussion are given in the next chapter.