MENTAL HEALTH AND SELF-EFFICACY AS PREDICTORS OF ACADEMIC ACHIEVEMENT OF STUDENT TEACHERS IN KERALA

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DECLARATION

I, **Tohid Moradi Sheykhjan,** hereby declare that the Ph.D. thesis entitled **"Mental Health and Self-Efficacy as Predictors of Academic Achievement of Student Teachers in Kerala"** is an independent work carried out by me and it has not been submitted anywhere else for any other degree, diploma or title.

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CERTIFICATE

This is to certify that, the work embodied in the thesis entitled **"Mental Health and Self-Efficacy as Predictors of Academic Achievement of Student Teachers in Kerala"** has been carried out by **Mr. Tohid Moradi Sheykhjan** under my supervision and guidance.

Dr. Rajeswari K.

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Thiruvananthapuram

10-04-2017

I dedicate the thesis

to the memory of my father

to my mother and my family members

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Tohid Moradi Sheykhjan

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CHAPTER I
INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The present study is an attempt to assess 'Mental Health' and 'Self-Efficacy' as predictors of 'Academic Achievement of student teachers' in Kerala.

Emotional and mental health problems may be caused by negative psychological propensity, such as low self-esteem, self-efficacy and loss of ability to control health (Hurrelman and Losel, 1990). Mental health is the ability to balance desires, feelings, ambitions and ideas in one's daily living (Sarafino, 1998). According to Corsini (1991), mental health is a mental mode which is relatively free of anxiety symptoms. A person who is mentally healthy can effectively communicate with others and encounter against stressful motivators. Mental health is characterized by the lack of mental diseases and life satisfaction, and enjoyment (Teodor, 2001). Wissing and Fourie (2000), state that mental health has a positive performance nature and includes among others, self-acceptance, positive communication with others, self-direction, domination on environment, setting some goals for life and personal development. It is composed of various complex factors as well as the interaction between physical, psychological and social agents. It is found that most of the studies conducted in this area come to prove that the students' academic achievement is positively correlated to their mental health (Suldo, Thalji and Ferron, 2011; Fuchs, 1982; Brian, 2002; Goldman and Lakdawalla, 2001 or Goldman and Smith, 2002).

One of factors affecting mental health is self-efficacy , which has a valuable place in different aspects of life and health and main role in individuals' thinking modes, their decision–making, the quality of their encounter with problems, their depression and anxiety status and so on (Maddux, 2002). Self-efficacy is a belief that one has the capabilities to execute the course of actions required to manage forthcoming situations. Self-efficacy beliefs are beliefs about one's ability to "organize and execute the courses

of action required to produce given attainments" (Bandura, 1997). It is concerned with one's confidence and ability to execute the behaviour in question (Cervone, 2004). Self-efficacy beliefs are beliefs about competencies. Competencies include:

1. The quality and range of the cognitive constructions and behavioural enactments of which the individual is capable and

2. The ability to "construct (generate) diverse behaviours under appropriate conditions" (Mischel, 1973).

Self-efficacy is the cornerstone of a great psychological-educational challenge in societies. A lot of research had been done to prove the relationship between self-efficacy and academic achievement of students (Bandura and Schunk, 1981; Bandura, 1986; Hackett and Betz, 1989; Holden et al., 1990).

It is too well-known that the goal of social development in the context of modern welfare is to produce social well-being and educational quality has become the central pivot for many education systems in developing countries.The world is becoming more and more competitive and quality of performance is the key factor for personal progress. Excellence particularly, in academics and generally in all other areas has been seen as an important aspect. The desire of a high level of achievement puts a lot of pressure on students, teachers, institutions and the educational system itself in general. In fact it appears as if the whole system of education revolves around academic achievement of the students, though various other outcomes are also expected from the system. Thus, a lot of time and efforts of the educational institutions are utilised in helping students to achieve better in their academic endeavours.

Education has been regarded as an essential concomitant of all human society. It has been one of the most important means to improve personal endowments, build capabilities, overcome constraints and in the process, enlarge available set of opportunities and choices for sustained improvement in well-being. However, the functioning of the educational process itself may become a source of stress and strain and mental disorder for its participants. This partly may be due to lack of the necessary aptitude and attitude in the learner and the instructor or in the features of the educational process.The process of education and attainments thereof has an impact on all aspects of life. In the process of education, learning occupies the central place. Learning situations

are most natural and common in life and everyone is learning one thing or the other although he may not necessarily be aware of it. An individual starts learning immediately after the birth. Knowledge is measurable more or less, but in learning there is no such measure. Learning is a process, not confined only to formal education or what we learn in schools and colleges, but it is a continuous process by which we acquire various interests, habits, knowledge, skills and values. Thus, when a certain stage of learning is reached, a corresponding change in behaviour occurs. This change may take the form of completely new patterns of behaviour or an improvement over the existing pattern of behaviour.

Life is a process of recovery that never ends. The behaviour of an individual is changed through several direct and indirect experiences. This change in behaviour brought about by experience is known as learning. The whole movement of life is learning. There is never a time when there is no learning. Every action is a movement of learning and every relationship is learning and when a certain stage of learning is reached, a corresponding change in behaviour occurs. This change may take the form of completely new patterns of behaviour or an improvement over the existing pattern of behaviour and learning results in an addition, a change, modification or stabilization of behavior. However, sometimes learning also results in discontinuance of an existing behavior. Though this is referred to as unlearning, it is actually learning to unlearn. The secret of healthy mind is not related to what we have, but in how we are using what we have. We each must find ways to learn and move through the pain and pick ourselves back up.

Today, students live in a society which has become multi-complex, and making the role of students very diffuse and confusing. When students approach the demands of adulthood, they must learn to assume full responsibility for themselves in almost each dimension of life. This requires mastering many new skills which develop new competencies and self-beliefs of efficacy among them. The extent to which students view themselves as competent and able to deal with normal life challenges refers to the students' sense of general self-efficacy.

In this crucial phase, students usually develop and make stronger their sense of efficacy by learning how to deal successfully with upsetting situations in which they are unpracticed as well as with beneficial events of life. The feeling of control over one's life

circumstances is important for physical and psychological health, it is an indicator of psychological resilience that can facilitate adaptation to change overcome negative consequences and promote overall well-being. However by unbalancing of mental health factors in the case of low self-efficacy and causing negative outcomes such as depression, anxiety or worry, most part of social behaviors will be affected.

1.2 NEED AND SIGNIFICANCE OF THE STUDY

The importance of mental health and self-efficacy as predictors of academic achievement have been raised several important questions for educational psychology researchers. What factors are promoting achievement of students? How far do the different factors contribute towards academic achievement? The answer to such questions is not easy because of intricate human personality. A complete and comprehensive picture of mental health, self-efficacy and academic achievement still seem to elude the researchers. The search, therefore, continues and educational psychology researchers all over the world are still seeking a breakthrough in elucidating the phenomenon. Since, efforts have always been made to find out strategies and mechanism to improve excellence. Many factors have been hypothesized and researched by the researchers. They come out with different results, at time, complementing each other but at times contradicting each other.

It is well-accepted that the achievement level of an educational system is decided by the quality functioning in the system. No system of education can rise above the level of its teachers. If nations want to have quality in education, it must have quality in teachers. Teacher education seeks to promote excellence, adventure of ideas and search for truth. Teacher education has to help to develop those capabilities in a trainee which would help his to conceptualize a phenomenon or situation and enable his to contribute to social development through his knowledge, understanding of knowledge and skills to produce social well-being.

However, not much study in this area have been conducted in India and especially in Kerala among student teachers, who have the fundamental responsibility as new generation of teachers on the improvement of our society and the welfare of new

generation of mankind. Hence, the investigator has come up with the idea of undertaking a study in Kerala.

1.3 STATEMENT OF THE PROBLEM

The above background, need and significance of the study are points to the nature and scope of the present study that the investigator intends to find out: What are the major factors for assessing mental health? How do we identify self-efficacy of individuals? What are the factors for measuring academic achievement? What are the effects of mental health and self-efficacy on academic achievement of student teachers? How do we enhance mental health and self-efficacy of student teachers? What is the role academic achievement of student teachers in creation of a healthy society? Is there any relationship between mental health and self-efficacy with academic achievement among student teachers in Kerala? On the other hand, studying on mental health with regard to self-efficacy in the context of academic achievement among student teachers from a psychological-educational perspective and the impact of mental health and self-efficacy on the formation of individual's personality and emotions require comprehensive studies.

In accordance with the need, as specified before, the present problem would be stated around as a study on 'Mental Health', 'Self-Efficacy' and 'Academic Achievement' among student teachers to explain the nature and scope of the study to a great extent. Hence, the problem can be stated as **“*MENTAL HEALTH AND SELF-EFFICACY AS PREDICTORS OF ACADEMIC ACHIEVEMENT OF STUDENT TEACHERS IN KERALA*”**.

Here a co-relational study of Academic Achievement, Mental Health and Self-Efficacy could be a meaningful contribution which may add to the existing literature on academic achievement.

1.4 OPERATIONAL DEFINITION OF KEY TERMS

The operational definitions of key terms used in the statement of the problem are given below:

1.4.1 Mental Health

Mental health is described by WHO (2005), as: "A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life,

can work productively and fruitfully, and is able to make a contribution to his or her community".

In this study the various components of mental health status such as: attitude toward the self, positive attitude toward others, self-actualization, integration, autonomy, perception of reality, environmental mastery, optimism refers to a state of emotional and psychological well-being in which an individual is able to use his or her emotional and cognitive capabilities, function in society and meet the ordinary demands of everyday life are included. Here mental health is broader than lack of mental disorders.

1.4.2 Self-Efficacy

According to Bandura (1997), self-efficacy is a belief that one has the capabilities to execute the course of actions required to manage forthcoming situations. Self-efficacy beliefs are beliefs about one's ability to "organize and execute the courses of action required to produce given attainments".

In the present study self-efficacy means the ability to achieve desired results especially in general performance of student teachers. General self-efficacy is refers to the general view of performance of one's coping abilities in a wide variety of situations and general view of person's belief in his or her own ability to organize and execute the courses of action required to achieve specific goals.

1.4.3 Predictor

According to Good, (1959), Predictors are something which estimate a future trend or magnitude on the basis of some previous experience.

In the present study predicting is the process of statistical inference which gives an estimate of the performance of the criterion variable as understood by the statistical techniques used in the study.

1.4.4 Academic Achievement

The dictionary of Education, Good (1973), defines academic achievement as accomplishment or proficiency of performance in a given skill or body of knowledge. Thus, academic achievement is an end product of learning whose level and performance are affected by various conditions existing at the time of learning and its use. Academic achievement can be defined as excellence in all academic disciplines and co-curricular activities.

In the study academic achievement has been indicated by the total marks obtained out of 1000 at the Bachelor course in Education (B.Ed.).

1.4.5 Student Teachers

The American heritage dictionary, (2016), defines: "A college student pursuing a degree in education who teaches in a classroom under the supervision of an experienced, certified teacher, also called practice teacher."

In the present study student teachers are students undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala.

1.5 STATEMENT OF HYPOTHESES

A hypothesis is a tentative generalization the validity of which remains to be seen. In its most elementary stage the hypothesis may be any hunch, guess, imaginative idea which become the basis for further investigation.

On the basis of the above mentioned objectives the hypotheses formulated in the present study are:

1. There exists significant relationship between predictor variable, Mental Health and criterion variable Academic Achievement among student teachers in Kerala.

2. There exists significant correlation between each of the components of Mental Health and Academic Achievement among student teachers in Kerala.

3. There exists significant relationship between Self-Efficacy and Academic Achievement among student teachers in Kerala.

4. There exists significant difference in Mental Health with respect to:

   a. Gender

   b. University.

5. There exists significant difference in Self- Efficacy with respect to:

   a. Gender

   b. University.

6. There exists significant difference in Academic Achievement with respect to:

   a. Gender

   b. University.

7. There exists significant correlation between Mental Health and Academic Achievement when Partialling out the effect of Self-Efficacy among student teachers in Kerala.

8. There exists significant correlation between Self-Efficacy and Academic Achievement when Partialling out the effect of Mental Health among student teachers in Kerala.

9. There exists significant combined relationship between Self-Efficacy and Mental Health on Academic Achievement among student teachers in Kerala.

10. Each of the associate variables, Mental Health and Self-Efficacy is a significant predictor of Academic Achievement among student teachers in Kerala.

1.6 OBJECTIVES OF THE STUDY

The present investigator proposes to do a thorough investigation into the inter-relationship among mental health, self-efficacy and academic achievement taking into consideration to the following objectives:

1. To find the relationship between Mental Health and Academic Achievement among student teachers of Kerala

2. To find the relationship between each of the components of Mental Health and Academic Achievement among student teachers of Kerala

3. To find the relationship between Self-Efficacy and Academic Achievement among student teachers of Kerala

4. To find whether there exists significant difference in each of the predictor variables Mental Health and Self-Efficacy with respect to:
   a. Gender
   b. University

5. To find whether there exists significant difference in the criterion variable Academic Achievement with respect to:
   a. Gender
   b. University

6. To find the correlation between Mental Health and Academic Achievement by Partialling out the effect of Self-Efficacy among student teachers in Kerala

7. To find the correlation between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among student teachers in Kerala

8. To find the combined relationship of predictor variables, Mental Health and Self-Efficacy on criterion variable Academic Achievement among student teachers in Kerala

9. To test the predictive efficiency of each of the associate variables to predict Academic Achievement among student teachers in Kerala

1.7 VARIABLES OF THE STUDY

The study has been conceived around three major variables. The predictor variables of the study are Mental Health and Self-Efficacy and the criterion variable of the study is Academic Achievement.

1.8 METHODOLOGY IN BRIEF

Research methodology is a way to systematically solve the research problem. It is a science of studying how research is done systematically. The brief of methodology are given below:

1.8.1 Method Adopted for the Study

Considering the nature of the problem, data to be used and the objectives selected for the study, the method used for the present study is survey method. The study is descriptive and co-relational in nature.

1.8.2 Sample

The sample for the study consisted of 314 students undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala. Additional details about the sample are presented in Chapter III of this report (Table 3.1 and Table 3.2).

1.8.3 Tools used for the study

Data for the study were collected by using the following tools:

1. Mental Health Status Scale (M.H.S. Scale).
2. General Self-Efficacy Scale (G.S.E. Scale).

The scales were prepared and standardized by the investigator. The details are given below:

1.8.3.1 Mental Health Status Scale (M.H.S. Scale)

In the Mental Health Status Scale (M.H.S. Scale) eight components of mental health were included. The components were selected based on the discussions made with the experts and the supervising teacher. The list of experts are appended in Appendix-A. The eight components selected are: i) Attitudes toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism factors.

1.8.3.2 General Self-Efficacy Scale (G.S.E. Scale)

The scale was developed to assess a general sense of self-efficacy with the aim in mind to predict coping with daily hassles as well as adaption after experiencing all kind of stressful life events.

Note: The study used the total score of B.Ed. course to assess the academic achievement of the sample selected.

1.8.4 Data Collection Procedure

The tools were administrated to the sample selected with the prior permission of the head of Departments of Education and the Principals of affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala. The data were collected from a total sample of 314 M.Ed. students who have been studying at the above mentioned institutions. The list of Departments and colleges are appended as Appendix-B.

The responses were collected, complied and scored as per the instruction in the manuals concerned. Only those scales that were filled up completely were retained for analysis. The data were transformed into a numerical scheme and stored in a computer file. Later tabulation and analysis the data were done with the help of IBM SPSS Statistics 22.0.

1.8.5 Statistical Techniques Used

The relationships of the variable, 'Mental Health' with each of the two other variables viz., 'Self-Efficacy' and 'Academic Achievement' was separately investigated by using the following statistical techniques:

Section1: Preliminary Analysis

Section 2: t-Test and ANOVA

Section 3: Correlation Analysis

Section 4: Regression Analysis

Details regarding the statistical techniques used for the study are given in Chapter III.

1.9 SCOPE AND LIMITATIONS OF THE STUDY

The study was focused on, to find out the significant relationship of Mental Health and Self-Efficacy as predictors of Academic Achievement of student teachers in Kerala.

The population of the study has been represented students teachers in Kerala. The total representative sample consisted of 314 M.Ed. students from the University Departments and affiliated colleges in the field. The sample was selected by using random sampling technique and then by ensured due representation to each category of population in the sample. The University Departments and affiliated colleges in the field were selected from different strata were given due representation to factors such as Gender (male/female), and University. The study was conducted among students teacher undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges at Kerala, Mahatma Gandhi, Calicut and Kannur Universities in Kerala state.

Moreover, the investigator made use of standardized tools for the collection of data in order to make the study reliable and valid. But the investigator in different stages of the study took enough precautions to minimize the interferences of these limitations in the validity of the conclusions.

It is hoped that the present study would elaborate the various aspects of mental health among student teachers. It reveals the association / relationship among the components of mental health status such as positive attitude towards others and environmental mastery with respect to University. In addition, the academic achievement of student teachers was dependent to University. The study shows that, the components of mental health status such as: integration, environmental mastery and optimism of the student teachers are dependent to academic achievement. Moreover, the results also

reveal that, the mental health of the student teachers is dependent to Academic Achievement too. This will be highly useful for the institutions conducting M.Ed. courses and the policy makers for organizing programmes / courses on mental health improvement and academic achievement among student teachers. The student teachers who are undergoing the course may aware of their status on mental health and thereby attempt to improve their mental health in order to become an effective teacher. The researchers in education especially in teacher education may use this investigation for further enlightenment in their field of study.

The researcher has taken great effort to make this study as much precise and objectives as possible. Although there is much remains to be done, some limitations encountered by the investigator due to particular considerations were the following:

1. The present study had to be limited to less number of variables due to practical reasons.
2. The samples of the study are not matched in the variables like locality, religion and socio economic status.
3. Only eight components of mental health status had been selected for the study.
4. In the study academic achievement has been indicated by the total score obtained out of 1000 at the Bachelor course in Education (B.Ed.).
5. The data collection was confined to only students undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala.
6. The sample size for the study was small, since the investigator included four different Universities in Kerala. This sample is only a very small proportion of the entire population of student teacher undergoing M.Ed. programme in the country.
7. The study was limited to 49 (15.6%) male and 265 (84.4%) female out of 314 student teachers in Kerala.

The present study with the all its limitations, is expected to open new avenues for further research in this area.

1.10 CHAPTERIZATION

The study is reported in five chapters, as details below:

Chapter I: Introduces the topic and presents the back ground of the study, need and significance of the study, statement of the problem, operational definition of key terms, statement of hypotheses, objectives of the study , methodology in brief, scope and limitations of the study and chapterisation are mentioned. References of the report are included at the end of the chapter.

Chapter II: Presents a review of related literature by two sections; section one presents the theoretical overview and section two presents the review of related literature. References of the report are included at the end of the chapter.

Chapter III: Describes the method adopted for conducting the study, and measures used for collection and analysis of data. References of the report are included at the end of the chapter.

Chapter IV: Describes the analysis and interpretation of the data obtained for the study, to answer the basic research questions taken up by the study. References of the report are included at the end of the chapter.

Chapter V: Gives the conclusion drawn for the study, educational implication of the finding and suggested areas to be selected for further research, to give greater meaning to the findings of the present study. References of the report are included at the end of the chapter.

The report is supported by a fairly exhaustive Bibliography. The bibliography is followed by a series of appendixes pertaining to the study.

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CHAPTER II
REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

2.2 SECTION 1: THEORETICAL OVERVIEW

2.3 SECTION 2: REVIEW OF RELATED LITERATURE

2.4 CONCLUSION

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CHAPTER II
REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

Review of related literature and studies is an essential aspect of any investigation. As Best and Kahn (1995), observe: "Since effective research is based upon past knowledge, review of related literature helps to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for significant investigation."In other words, a summary of the writing of recognized authorities and of previous research studies provides evidence that researcher is familiar with what is already known and what is still unknown and untested.

According to Aggarwal (1966), review of related studies implies locating, reading, and evaluating reports as well as reports of casual observations and opinions that are related to individual's planned research project. Also, review of literature provides the means of getting to the frontier the researcher's particular field of enquiry. It not only provides access to the accumulated wisdom of the ages but also enables the investigator to carry out his work successfully.

Citing studies that show substantial agreement and those that seem to present conflicting conclusions help to sharpen and define understanding of existing knowledge in the problem area, provide a background for the research project, and make the reader aware of the status of the issue. It may be remembered that the review of related literature and studies is one of the first steps in research. It is a valuable guide to defining the problem, recognizing its significance, and suggesting promising data-gathering devices, and appropriate study design.

The present chapter is intended to make short survey of the conceptual bases used for designing the study and theories concerning the major variables (mental health, self-efficacy and academic achievement), selected for the study. Therefore, in this chapter an earnest attempt is made to bring out some of the important theoretical aspects, and research studies connected with the present investigation. The details are given under two sections:

Section 1: Theoretical Overview

Section 2: Review of Related Literature

2.2 SECTION 1: THEORETICAL OVERVIEW

In this section, the theoretical overview of the different variables under study, viz., Mental Health, Self-Efficacy and Academic Achievement are discussed. The details are given under three heads. They are:

1. Mental Health
2. Self-Efficacy
3. Academic Achievement

The details are given below:

2.2.1 Mental Health

Public health is the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society (WHO, 1998). Health promotion refers to the process of enabling people to increase control over and improve their own health (WHO, 1986).

The WHO (1993), defines health as "the presence of physical and emotional well-being", whereas mental health is a "condition, which permits, optimal development–physical, intellectual and emotional-of the individual, so far as is in compatible with that of other individuate themselves individuals". Health polices in the 21st century will need to be constructed from the key question… "What makes people healthy?" (Kickbusch, 2003).The action plan has, at its core, the globally accepted principle that there is no health without mental health. Mental health is very important because of having a direct relationship with personal-social performance and social-mental injuries (Aghdasi, 2002, quoted by Soleimanian, 2009).

Mentally healthy people feel comfortable about themselves and their abilities. They do not expect to be able to do everything perfectly, nor do they underestimate their powers. They shape the environment if possible, if not adjust to it and such individuals have generally satisfying relationships with other people. They are able to consider the interests of others and to feel as a part of a group. Mentally healthy people are

characterized by a positive state of well-being. They have attained a high degree of personal adjustment, and this is reflected in their daily lives (Patty and Johnson, 1993).

A mental health mean how a person thinks, feel, and acts when faced with life's situations and people look at themselves, their lives, and the other people in their lives, evaluate their challenges and problems, and explore choices. These include handling stress, relating to other people, and making decision. Successful performance of mental function results in productive activities, fulfilling relationship with other people, and the ability to adapt to change and cope with adversity from early childhood until late life.

Mental health is the springboard of thinking and communication skills, learning, emotional growth, resilience and self-esteem. It is a basic factor which contributes to maintenance of physical as well as social well-being. A mentally healthy person shows strength of purpose, co-ordination of effort, and steady pursuit of well-chosen goals. For him, there is integration and peace of mind. Also, a mentally healthy person is one who is able to find the real meaning of his own actions and the actions of others. He is also able to interpret himself to others.

Certain common event of midlife (e.g., divorce, or stressful event at the work place), can create mental health problem that may be addressed through a range of intervention. Sensitivity to culture, race, gender, disability, poverty and the need for consumer involvement are important considerations for care and treatment. Positive mental health is a necessary condition for better development of an individual. If an individual is well knit, relationship between individuals will be good also conducive conditions in the working environment or organization can enhance the mental of an individual. As individuals move into adulthood, development goals focus on productivity and personal relationships. Positive mental health enables individuals to cope with adversity while pursuing those goals.

According to performed researches, lack of mental health has a negative effect on insight, expressing your existence and farewell feeling. Goldenberg found that mental disorders as a set of clinical signs or a behavior often having a relationship with stress or disorder in personal performance and the lack of such signs signify mental health in a few cases (Goldenberg and Huxley, 1992). Goldenberg believes that the existence of minimal

mental health is a part of life. Also he believes that mental health exists with different level in a public population (Knapp et al., 2007).

Mental and behavioral disorders are common, serious and global. Integral to the human condition since recorded history, mental and behavioral disorders have a profound, life-altering impact on the human experience and exact enormous tolls of suffering, loss, and disability. Ruthlessly indiscriminate, mental and behavioral disorders afflict individuals across race, ethnicity, religion, nationality, socioeconomic status, gender and age. Yet, these disorders have largely been absent from the global health agenda. Focused on other priorities, the field of global health has engaged in a practice of "intentional blindness" (Chabris and Simons, 2010).

The global burden of mental and behavioral disorders has not been well articulated historically, and by extension, research, policy and practice initiatives to address them have largely been absent from the larger global health agenda. It is time to bring mental health into focus. Momentum is gaining in terms of raising awareness, increasing understanding, and articulating strategies for advancing and integrating mental health as part of the global health agenda. (Collins, Patel, Joestl, March, Insel et al., 2011; Becker and Kleinman, 2013).

In terms of the most pressing public health priorities of our time, the overwhelming majorities of countries face similar problems, irrespective of economic, social and cultural disparities and diversity, and have much to learn from shared experience. A healthier 2020 depends on articulating further the toll of mental disorders on society's worldwide, increasing capacity and developing a workforce that is prepared to address the mental health needs of a progressively urban and ageing global population, and on leveraging innovative strategies and technologies that expand both basic science and service delivery for mental disorders. Recognizing that there can be "no health without mental health", (Prince, Patel, Saxena,Maj, Maselko et al., 2007).

Mental and behavioral disorders are now recognized as the leading cause of disability worldwide, with an estimated 22.2 % of all years lived with disability attributable to these disorders. (Murray, Vos, Lozano, Naghavi, Flaxman et al., 2010). Mood disorders (including major depression, bipolar disorder and dysthymia), anxiety, alcohol and drug abuse, and schizophrenia are among the top twenty conditions that

result in the greatest burden of disability worldwide. (Prince, Patel, Saxena, Maj, Maselko et al., 2007; Murray, Vos, Lozano, Naghavi, Flaxman et al., 2010). In fact, disability associated with mental and behavioral disorders exceeds the burden associated with other non-communicable diseases such as cancer, diabetes, and cardiovascular disease, as well as HIV/AIDS, neurological diseases, war and injuries (Murray, Vos, Lozano, Naghavi, Flaxman et al., 2010).

There is increasing awareness that mental well-being can be promoted by attention to, for instance, organizational practices, the general environment, and availability of support, lifestyle, attitudes and social inclusion. To be effective, mental health promotion must aim to change behaviour and attitudes, not just provide information (Sayce, 2000). Mental health promotion can be seen as involving:

1. The establishment of an environment at all levels of the institution to promote mental well-being for all through local initiatives, and/or participating in national or international projects such as the Health Promoting University Project (Tsouros, et al., 1998).

2. The promotion of the needs and well-being of those individuals experiencing mental health difficulties.

Discussions of the conceptualization of mental health naturally reflect the interests of the principal group involved in the mental movement. The details are given under the following sub-heads:

1. Conceptualization of Mental Health
2. Definitions of Mental Health
3. Mental Health Literacy
4. Components of Mental Health

The details are given below:

2.2.1.1 Conceptualization of Mental Health

One of the leading issues is whether "mental health" and "mental illness" should be conceptualized on the same continuum or as different continues that cut across each other. The conventional medical view holds that mental health is the absence of mental illness, that both terms represent the extreme ends of the same continuum, and that the difference between the two states is one of degree. A contrary view is that mental health

is quantitatively different from mental illness and that a person can be both mentally health and mentally ill at the same time. Subjective controls as well as subjective health, each aspects of the self, are considered as significant elements of the health concept and recognizing the existence of different views on the concept of mental health promotion (Sartorius, 1998).

Jahoda (1985), as an advocate of the concept of 'positive mental health' is to maintain that the absence of certain qualities does not imply the presence of others. For example, the absence of hallucinations does not imply the presence of accurate self-appraisal; conversely, the presence of creativity does not exclude the presence of severe anxiety. The psycho analytic perspective focuses on the intrapsychic life of the individual. Freud (1932), defined mental health in his programmatic statement; "where I was, there shall ego be". Here the value is awareness of unconscious motivations and self-control based upon these insights. The interpersonal frame of reference is more concerned with the functioning of individuals in interpersonal situations.

Sullivan (1954), identified a person's drive toward mental health as those "processes which tend to improve his efficiency as a human being, his satisfactions, and his success in living", and places major value on effective and efficient social functioning. The social relatedness perspective is exemplified by Fromm (1955), who focuses on the individuals' relationship with the larger social environment. "The mentally healthy person is the productive and un-alienated person, the person who relates himself to the world lovingly, and who uses his reason to grasp reality objectively, who experiences himself as a unique individual entity, and at the same time feels one with his fellow man; who is not subject to irrational authority, and accepts willingly reason; who is in the process of being born as long as he is alive, and considers the gift of life the most precious chance he has".

The WHO definition of health implies that mental health cannot be achieved merely by preventing or treating disorders. It must address the broader issues affecting the mental well-being of all sections of society. Mental health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the WHO's definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease". It is related to the promotion of well-being, the

prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders (WHO, 2013).

Mental health is a vital component of the total health of an individual because our entire thought process takes place in mind, ideas originate in mind and all kinds of directions are issued from mind which guide, shape and regulate communication, conduct and behavior and determine personal and social functioning as well as adjustment (Bhargava and Raina, 2007).

Good health depends on the state of both mind and body. Health generally means sound condition, or well-being, or freedom from disease. Mental health, therefore, may refer to a sound mental condition or a state of psychological well-being or freedom from mental diseases. One's body and mind function harmoniously; it is said that sound body presupposes a sound mind and a sound mind exists in a sound body in so much so that any understanding of personality requires proper analysis of body and mind. Mental health, thus, is the full and harmonious functioning of the whole personality (Hadfield, 1952).

The positive dimension of mental health is underlined when it is accepted that mental health is not just the absence of mental disorder. Health is considered as a positive state of well-being, not just a lack of disease. People in a state of emotional, physical and social well-being fulfills life responsibilities, functions effectively in daily life and are satisfied with themselves and their interpersonal relationships. Positive psychology, psychological well-being, qualitative living, excellence in living, feeling wellness is the synonyms which are used interchangeably for mental health (Raina, 2004).

Well-being is undoubtedly a desired aim of human existence and all of us strive to achieve it. Well-being refers to the harmonious functioning of the physical as well as psychological aspect of a person as the subjective feeling of contentment, happiness, satisfaction, etc. The sense of well-being is a composite indicator of physical / biological, psychological / mental, and social well-being. Biological indicators of well-being are health status, health awareness, utilization of health care practices and health maintenance behaviour, etc. While psycho-social indicators of well-being include mental health, cognitive functioning, positive emotions, adjustment, satisfaction with life

experiences, feelings of contentment and happiness, sense of achievement, self-confidence and coping skills, liveliness, sociability, etc., (Khan, 2006).

Information technology has converted the world into a global village (McLuhan, 1969). Attitude, conduct and behaviour of the people look like at a great variance from the village of the yore. Values of consumerism, individualism, materialism and hedonism; sadism and masochism have significantly increased and sensitivity towards others' suffering has considerably decreased (Bhargava and Raina, 2007).

Good mental health thus becomes imperative for one to attain and enjoy total health. Sound mental health will ensure germination of healthy ideas and action which guide personal and social functioning as well as adjustment. Needless to say, all kinds of insecurities – physical, mental, social, etc., play upon the psyche of the people resulting in anxiety, frustration, stress, tension, maladjustment, personal and social problems. All this takes a toll of the mental health of an individual. The various definitions of mental health are given below:

2.2.1.2 Definitions of Mental Health

The meaning of the term "mental health" is ambiguous; not only is it difficult to agree on its general application, but even in a single context it may be used in various ways. Definitions of mental health to some extent must be a matter of convenience. There is various definition of mental health. Differences of culture, evaluation, field of subjective and professional theory have an influence on mental health is defined.

Beside the WHO definition is given below, psychologists have formulated various definitions of mental health; by attacking the concept from different angles. There are several efforts to define mental health, by different authorities in the field. For instance, in the words of Thorpe (1960): Mental health means satisfactory adaptation to the requirements of group life, and the experiencing by the individual of the greatest success which his abilities make possible, with a maximum sense of well-being on his part and the highest possible benefit to society.

According to English and English (1945), "Mental health is a relatively enduring state where the person is well-adjusted, has a zest for living, and its attaining self-actualization or self-realization".

A mentally healthy person has harmonious relationship with his environment. This is in agreement with the definition given by Bonney (1960), who says, "Mental health is a state of being conducive to harmonious and effective living".

A mentally healthy person may be free from disturbing symptoms that interfere with peace of mind. That is 'satisfaction' is one of the characteristics of good mental health. Boehm (1955) argues, "Mental health is a condition and level of social functioning which is socially acceptable and personally satisfying".

According to Hurlock (1994), people with healthy personalities are those who are judged to be well adjusted. They are so judged because they are able to function efficiently in the world of people.

According to Good (1945), mental health as wholesomeness of mind, analogous to the wholesomeness of body implicit in physical health, extended in modern usage, to include all aspects of the adequacy of individual integration.

Joseph (1951), agreed with this view. For him mental health is the result of personality integration. It involves many factors including those of greater awareness of and responsiveness to others in interpersonal relationships, the conscious control and channeling of energy without destructive handicaps such as distortion, illness, guilt, anxiety and so on, and the acquired discipline of mature evaluation of the self and its needs and goals.

Mental health is defined by Parameshvara (2014), as a state of perfect, including not merely the absence of disease or disorder but also the presence of factors such as life satisfaction, self–acceptance and social contributions.

"Mental Health is the ability to adjust satisfactorily to the various strains of the environment; we meet in life and mental hygiene as the means we take to assure this adjustment" (Cutts and Moslay, 1941).

"Mentally healthy person is one who is happy, lives peacefully with his neighbors, makes his children healthy citizens and after fulfilling such basic responsibilities is still empowered with sufficient strength to serve the cause of the society in any way" (Lewkan, 1949).

According to Stevenson (1954), mental health is "the psychological freedom that allows one to get on with others and to cope with life as demanded by one's own society".

Mental health means freedom from disabling and disturbing symptoms that interfere with peace of mind, emotional tranquility, or mental efficiency. "Mental Health is the full and harmonious functioning of the whole personality" (Hadfield. 1952).

According to Allport (1955), deal with healthy personality prescribes the study of normal and mature adults instead of neurotics. He indicated that healthy persons were not controlled by unconscious conflicts while neurotic adults possessed these conflicts.

According to Schneider (1964), mental health represents a psychological condition which is characterized by mental peace, harmony and content. It is identified by the absence of disabling and debilitating symptoms, both mental and somatic in the person.

According to Maslow (1970), people who have fulfilled their potentialities to the greatest degree will lead us to the formulation of a 'positive psychology' and will rid us from the negative approaches. He is always concerned to study the best, the healthiest and the most mature side of human nature.

Sortorives (1983), states that "mental health is a state of balance between the individual and the surrounding world, a state of harmony between oneself and others, coexistence between the realities of the self and those of other people as also of the environment." Cautioning us against confusing mental health with mental illness, Kumar (1992), defined that mental health serves as an index to show the extent to which the person has been able to meet his environmental demands- social, emotional and physical. However, when he finds himself trapped in a situation he does not have matching strategies to deal with effectively; he gets him mentally strained. This mental strain is generally reflected in symptoms like anxiety, tension, restlessness or hopelessness among others. If it is felt for too long and too extensively by the person, these symptoms may take a definite from (or get 'syndromes'), representing a given illness. Mental health, according to Kumar, is a study of pre-illness mental condition of the person concerned.

According to Park (1995), "Mental health is thus the balanced development of the individual's personality and emotional attitudes which enable him to live harmoniously with the fellow men".

Singh (2000), defined mental health as the ability to establish and nurture loving relationships with relevant others, to discern and engage in rewarding work, to continually develop one's understanding of self and relevant others, to meaningfully contribute one's mite towards promotion of well-being of community to which one belongs without losing one's own identity, independence and autonomy and to think and behave with an adequate blend of objectivity and sensitivity in all kinds of situations which one happens to come across.

A person's mental health can be inferred from his behavior. A person's behavior may be viewed or interpreted differently by others, depending on their values and beliefs, Therefore, mental health is a state of emotional, psychological and social wellness confirmed by satisfying interpersonal relationships, effective behavior and coping, a positive self-concept and emotional stability (Videbeck, 2001).

Neither mental nor physical health can exist alone. Mental, physical and social functioning, are interdependent. Furthermore, health and illness may coexist. They are mutually exclusive only if health is defined in a restrictive way as the absence of disease (Sartorius, 1990).

Mental health is a component of holistic health (Bhargava, 2005a; 2005b), which includes physical, mental, emotional, social, cultural health, each associated with the other.

Bhargava and Aurora (2006) have pointed out that psychological well-being brought out the total human health with a quality and excellence. Therefore, it is highly recommended that a good health, whether physical or mental, needs the all-round psychological well-being because it is related with reality and capabilities of the person on one hand and work force to fight with problems and challenges on the other. Bhargava explained that , by mental health we mean the proper and balanced development of intellect, creativity, reasoning, emotionally, mindfulness, initiative and maintenance of mutually rewarding social relationship ability to face day-to-day problems and multifold challenges without losing patience, provide solutions and relaxation with self-confidence, assertiveness and enthusiasm, realizing the troubles and sufferings of others, engaging for constructive and welfare activities and be playful and rejoicing on occasions. There are multiplicities of factors which play a determining role in shaping a mentally healthy man.

These are as such-personal resources, social support, integrated personal structure, quality of emotional life, good family atmosphere, proper community understanding, cultural and religious harmony, etc., (Bhargava, 2006).

Tripathi et al., (2006), have pointed to the Indian perceptions which can make a positive contribution to the state of mental health in the modern life. Egolessness, the state of 'Sthitapragya' and 'Anasakti', the state of 'Maitri', 'Karuna', 'Mudita' and 'Upeksha' are the different perceptions as given by the classical Indian texts complement and supplement holistic view of our mental health. Mental health, however, is the positive capacity for living and enjoying the good life. The examination of the internal psychological states and process, i.e. 'Chittavritti' is one of the central themes in the classical Indian texts. The Indian thoughts seek to understand and analyze natural inclination, desires, passions, etc., so as to consciously control them. The object of this control is to uplift and refine human personality by our coping with and eliminating negative emotions and negative values like 'Trishna', 'Raga' , 'Dwesh' and by replacing them with positive emotions and values like love and compassion.

Differences in values across countries, cultures, classes and genders can appear too great to allow a consensus on a definition (WHO, 2001c). However, just as age or wealth each have many different expressions across the world and yet have a core common-sense universal meaning, so too can mental health be understood without restricting its interpretation across cultures. In the positive sense, mental health is the foundation for well-being and effective functioning for an individual and for a community. It is more than the absence of mental illness, for the states and capacities noted in the definition has value in them. Despite this, mental health is still portrayed by some as a luxury. The misunderstandings on which this view is based are now clearer than they were in the past, and WHO and other international organizations identify the improvement of mental health as a priority concern for low and middle income countries as well as for wealthier nations and people (WHO, 2001b).

On the basis of various definitions many sub-dimensions have evolved of mental health. Therefore, mental health can be defined in terms of sub-dimensions like: Emotional stability, overall adjustment, autonomy, security insecurity, self-concept and intelligence. It is not mere absence of mental illness that constitutes mental health. On the

other hand, it is a positive, active quality of individuals' daily living. This quality of living is manifest in the behavior of an individual whose body and mind are working together in the same direction. His thoughts, feelings and actions function harmoniously towards the common end. It means the ability to balance feelings, desires, ambitions and ideals in one's daily living. It means the ability to face and accept realities of life. It connotes such habits of work and attitudes towards people and things that bring maximum satisfaction and happiness to the individual gets this satisfaction and happiness without any friction with the social order on group to which he belongs. From this, one can conclude that mental health has two important aspects. It is both individual and social. The individual aspect connate that individual is internally adjusted. He is self-confident, adequate and free from internal conflicts and tension or inconsistencies. He is skilful enough to be able to adapt to new situation. But he achieves this internal adjustment in a social setup. Society has certain value systems, customs and traditions by which it governs itself and promotes the general welfare of its members. It is within this social frame work that the internal adjustment has to be built up. Only then, an individual becomes a person who is acceptable as a member of society. Social forces are constantly moving and changing. Similarly, our internal adjustment is also affected by various stresses. As such, mental health is a process of adjustment which involves compromise and adaptation, growth and continuity. Because of the significance of individual and social aspects, some psychologists have defined mental health as the ability of individual to make personal and social adjustment. It will be pertinent here to explain the word 'adjustment'. If one can establish a satisfactory relationship between himself and his environment, between his needs, desires and those of other people or if one can meet the demands of a situation, he has achieved adjustment. Adjustment results in happiness because it implies that emotional conflicts and tensions have been resolved and relieved.

Recognizing health as a state of balance including the self, others and the environment helps communities and individuals understand how to seek its improvement. Mentally healthy people feel comfortable about themselves and their ability. They do not expect to be able to do everything perfectly, nor do they underestimate their powers. They shape the environment if possible, if not they adjust to it. They individuals have generally satisfactory relationship with other people. They are able to consider the

interests of others and to feel part of a group. Mentally healthy people are characterized by a positive state of well-being. They have attained a high degree of personal adjustment as reflected in their daily lives. Based on the discussion above mental health can be defined by WHO, (2005) as:

A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.

The details of mental health literacy which refers to knowledge about mental health are given below:

2.2.1.3 Mental Health Literacy

Research conducted in countries including Australia, Canada, India, Japan, Sweden, the United Kingdom, and the United States regarding individuals' knowledge about mental health (Highet et al., 2004), (Pescosolido et al., 2008); find that under recognition of mental health disorder (MHD) is common. Jorm et al., (1997), introduced the term, mental health literacy, which refers to knowledge about mental health and the ability of a person to link that knowledge to action benefitting the mental health of one's self or others.

Research has demonstrated that one compelling reason for improving mental health literacy is that willingness to seek mental health treatment increases as knowledge about mental health increases (Highet et al., 2004; Jorm et al., 2006; Jorm, 2012). Mental health literacy has five components including:

1. Knowledge of mental health prevention measures,
2. Recognition of developing mental health disorders,
3. Knowledge of options for seeking help and treatment,
4. Self-help strategies for milder problems, and
5. First aid skills for people developing mental health disorders or who are in a mental health crisis (Gulliver, Griffith, Christensen, and Brewer, 2012; Jorm et al., 1997).

Many countries have conducted national surveys regarding mental health and indicate high prevalence rates of people experiencing symptoms of mental health disorders and low treatment rates (Jorm, 2012).

These surveys indicate that there is a delay between onset of symptoms and treatment that ranges from one to fourteen years (for mood disorders), three to thirty years (for anxiety disorders), and- six to eighteen years (for substance abuse disorders). The duration of untreated illness is related to the outcomes experienced by those with mental health disorders. The longer illness is left untreated the poorer the outcomes are. Further, individuals experiencing sub-clinical levels of symptoms are at higher risk of developing clinical disorders and attempting suicide (Jorm, 2012). Often these illnesses manifest before people who experience them have attained much knowledge about mental health disorders and they do not recognize what is happening to them (Gulliver, Griffiths and Christensen, 2010).

According to Jorm (2012), those experiencing symptoms of mental health disorders do not seek to help until their level of distress is severe. Many people and especially people in the range of 15 to 24 years of age, have negative attitudes toward receiving mental health treatment. One third of respondents surveyed in six European countries believe that getting professional help for mental health disorders is worse than having a mental health disorder (Scheerder et al., 2010). People also express the belief that psychiatric medications are more harmful than helpful even though clinical practice guidelines recommend their use (Jorm, 2012).

Often mental health illnesses have their first onset in adolescence (Gulliver et al., 2010). This can be particularly dangerous according to Gulliver and colleagues (2010), because adolescents lack knowledge and experience to obtain help with such problems and young people are unlikely to involve responsible adults when there is risk of suicide.

Jorm (2012), has been given compelling reasons for improving mental health literacy including:

1. An increase in willingness to seek help as knowledge about mental health increases,
2. The significant contribution to disability that mental health illness contributes in the world population,
3. The impact that mental illness has on young people, and
4. The value of prevention in keeping subclinical mental health issues from becoming fully developed mental health disorders.

In an effort to address the lack of mental health literacy of adolescents, Tacker and Dobie (2008), piloted a program developed for use with middle school students designed to increase knowledge about mental health. The participants in the program were from a school where nine percent of sixth graders were identified with depression screenings as being in need of referral for help. The program was implemented over a 6 week time period for 80 minutes and included 30 eighth grade students. Researchers used a mixed methods design with a pre and post program survey which included quantitative scales and space for qualitative comments. There was also a twelve question program evaluation and weekly teacher assessments. The program included instruction-group and peer to peer, written exercises, discussion, individual assignments, and opportunities to ask anonymous questions. The research indicated that students provided more accurate and complete answers on their exit surveys indicating a growth in knowledge of mental health issues. Students showed increases in coping mechanisms for strong emotions, identifying supportive resources, the ability to identify signs of depression, and identifying appropriate actions to take if the students thought someone was at risk of suicide. Six of the eight topics covered were ranked greater than a 4 on a 5 point interest scale by the students indicating high interest in the topics included in the program. According to the authors, differences in the pre and post surveys were not significant but may have been with a larger sample.

Another problem related to a lack of knowledge about mental health disorders is people often do not recognize when they or others are experiencing mental health distress nor do they know what to do when this is occurring (Highet et al., 2004).

Following the implementation of a national campaign in Australia to raise awareness about MHD, Highet and colleagues (2004), conducted a study to investigate the association between recognizing and responding effectively to depression with exposure to depression-related materials. "Beyondblue: the national depression initiative" was funded by the Australian government for its initial 5 year period. The objectives of the initiative were to increase community awareness of depression and reduce stigma through awareness and education, promote research into causes and treatments of depression, and promote training of community members and health service providers to

ensure prompt and effective forms of treatment (Hickie, 2001). Additionally, the initiative was undertaken as a public health campaign.

Highet et al., (2004), conducted a telephone survey including 3200 respondents. A representative community sample of 400 was taken from each Australian state/territory. The survey was composed of 37 questions with 10 additional questions asked of a subset of respondents. Items included questions regarding awareness, knowledge, attitudes, and behaviors of Australian adults 18 years of age and older. Researchers used Chi-Square Tests to examine the results and found that 45.4% of respondents identified depression as a major mental health issue. This identification was more likely to be made by women, respondents with post-secondary education, those with training in health or mental health, or those having had personal experience with depression. Results also varied by geographic region and metropolitan areas with those regions having high exposure to the Beyondblue initiative having higher levels of awareness. This variation was also found among individuals with those most familiar with the Beyondblue initiative having higher awareness levels. When participants in Highet and colleagues' study were asked to identify major health problems only 1.3% identified depression with actual prevalence rates underestimated or unknown by respondents. Among respondents, those with awareness of the Beyondblue campaign were more accurate in estimating prevalence rates of depression and aware of the debilitating nature of depression. These findings suggest that campaigns such as Beyondblue raise awareness and increase knowledge about depression. In addition national education campaigns may lead to improved attitudes and help seeking/offering behaviors.

Mental health disorders are not well recognized by the public and this lack of knowledge of disorders may lead to delays in seeking help as well as to inappropriate help-seeking behaviors (Jorm et al., 2006). Additionally, there is a gap between public and professional beliefs about treatment for mental health conditions. As mentioned previously, research has shown that many individuals believe that getting help for MHD is worse than having an MHD and that a lack of knowledge in the public, non-health professional community about treatments for MHD results from the low rates of mental health literacy (Scheerder et al., 2010). Knowledge about appropriate treatments for depression and schizophrenia is an example of these gaps in knowledge. Public

misunderstanding about the need for medication in both conditions and hospitalization in the case of schizophrenia (Jorm, Christensen and Griffiths, 2006b), may lead to a lack of help-seeking as well as to lower rates of adherence to treatment for those experiencing these MHDs.

Low rates of mental health literacy are not the only barrier to help-seeking behaviors for individuals with MHD. Stigma is also a factor in the willingness of individuals to seek appropriate treatment for MHD. According to Moskos et al., (2007), and Mental Health: A Report of the Surgeon General (U.S. Department of Health and Human Services, 1999), societal stigma is significant barrier to seeking treatment for mental health disorders. Additionally, internalization of the negative attitudes that lead to stigma by those experiencing MHD also may cause individuals to self-stigmatize and experience perceived stigmatization, both of which may reduce the likelihood of seeking professional help (Barney, Griffiths, Jorm and Christensen, 2006a). Stigmatizing attitudes and first aid skills, or appropriate ways to respond to mental health disorders or crises, can both be improved by increased knowledge. To increase knowledge and reduce stigma it is recommended that population-wide initiatives be put in place to promote knowledge about risk factors, prevention, and early identification as has been done for other disabling conditions such as heart disease and cancer (U.S. Department of Health and Human Services, 1999).

There are population-wide initiatives and individual training programs that show promise for improving mental health literacy. In Australia, where the population-wide education initiative Beyondblue was implemented, mental health literacy has improved (Jorm et al., 2006a, 2006b).

In order to determine the effect of mental health literacy campaigns population-wide monitoring of attitudes, help seeking behaviors, mental health, and knowledge about mental health needs to be done.

Mental health has many components and they all are influenced by a wide variety of factors which have the constant interactions also. The details for components of mental health are given below:

2.2.1.4 Components of Mental Health

Thus, a person's mental health is a dynamic or ever changing state. It has several components and they interact with each other. Adequate feeling of security, self-evaluation, contact with reality, adequate bodily desires and the ability to gratify them, self-knowledge, extension of the sense of self, warm relationship with others, emotional security, unifying philosophy of life, ability to take responsibility for neighbors and fellow human beings, orientation towards growth and maximizing one's potential, ability to deal with and influence the environment in a capable, competent and creative manner, acceptance of oneself and others in totality, spontaneity, creativity and freshness of vision and a healthy sense of humour, healthy reactions, capacity to understand problems, ability to make decisions and have solution-oriented attitude, positive thinking, awareness and maximization of one's potentials, development of emotion, creativity, intellect and spirituality, ability to face problems and challenges without losing patience and to respond to them with full strength and draw lessons for future, ability to analyze one's extended self, ability to discriminate against right and wrong, good and bad are some of the indicators of good mental health. Discussed below are some of the indicators of good mental health by a few authors.

According to Maslow and Mittelmann (1951), the following constitute normal psychological health:

1. Adequate feeling of security,
2. Adequate self-evaluation,
3. Adequate spontaneity and emotionality,
4. Efficient contact with reality,
5. Adequate bodily desires and the ability to gratify them,
6. Adequate self-knowledge,
7. Integration and consistency of personality,
8. Adequate life goals,
9. Ability to learn from experience,
10. Ability to satisfy the requirements of the group,
11. Adequate emancipation from the group of culture.

Schultz (1977), considered the following seven criteria for mental health:

1. Extension of the sense of self,
2. Warm relationship of self with others,
3. Emotional security,
4. Realistic perception,
5. Skill and assignments,
6. Self-objectification,
7. Unifying philosophy of life.

As against the numerous criteria suggested by Maslow and Mittleman, and Schultz cited above Park and Park (1977), gave only three main characteristics:

1. One feels comfortable about oneself, one feels reasonably secure and adequate, and one accepts one's plus points and limitations and having the self-respect and confidence.
2. One feels right towards others, therefore he develops friendship and loving behaviour, he may develop the sense of trust in others. Therefore, he can take the responsibility for his neighbors and fellow human beings.
3. A mentally healthy person is able to meet the demands of life. He does something about the problems as they arise. He sets reasonable goals for self, shoulders daily responsibilities, thinks better about self and take own decisions. He is not howled by own emotions of 'fear, anger, love or guilt.'

Mental health has many components and they all are influenced by a wide variety of factors which have the constant interactions also. Johnson (1997), showed how a person's mental health is a dynamic or ever changing state:

1. The person is autonomous and independent and can work interdependently or cooperatively with others. He may consider other's decisions and behaviour also but not be dictated by others.
2. The person has an orientation towards growth and maximizing one's potential.
3. The person can face the challenges of day-to-day living and tolerate life's uncertainties with a hope and positive outlook without knowing the future.
4. The person must have the self-esteem and he has the realistic awareness of his abilities and limitations.

5. The person can deal with and influence the environment in a capable, competent and creative manner.

6. The person should have reality orientation and he may act accordingly.

7. The person has the ability to manage stress, can tolerate life stresses and feelings of anxiety or grief, he can get the support from family and friends to cope with crises, knowing that stress will not last forever.

Indian perspectives on mental health can be understood through Bhatnagar (2000), and Singh (2002). Some of the important indicators suggested by Bhatnagar are:

1. Acceptance of oneself and others in totality.

2. Spontaneity, creativity and freshness of vision and a healthy sense of humour.

3. Healthy reactions, capacity to understand problems, ability to make decisions and solution-oriented attitude.

4. Personal autonomy, authenticity and responsibility for oneself.

5. Healthy interpersonal relationship and adaptability and quality of life.

6. Positive thinking, awareness and maximization of one's potentials.

7. Emotional maturity, sensitivity, empathy and ability to manage emotions effectively.

8. Realization of peace within one's own self and creation of harmony with others.

9. Ability to contribute in a creative and constructive manner to bring about the desired changes in the physical environment and socio-cultural context.

   Singh (2002), found mentally healthy person having the following characteristics:

1. Development of emotion, creativity, intellect and spirituality.

2. Maintenance of mutually rewarding social relationship.

3. Ability to face problems and challenges without losing patience and to respond to them with full strength and draw lessons for future.

4. Possessions of self-confidence, assertiveness, sensitivity and empathy with suffering of others.

5. Prepare constructively for joyful utilization of loneliness and participate in play and fun.

6. Ability to laugh on the occasions which are really amusing, joyful, and wonderful.

Bhargava and Bhargava (2002), have enumerated some indicators of sound mental health as bellow:

1. To accept oneself and others in totality.

2. One should have the ability to analyze one's extended self. He must recognize his plus points, accept limitations and should feel comfortable and peaceful within himself, to set reasonable goals for himself and should have the ability to take own decisions.

3. He should have the ability to manage self by analyzing self-concept, self-actualization.

4. As a person he is the part of society, so he should have the healthy interpersonal relationship creating harmony with other potentialities, to understand his social responsibilities and solve the problems of community as a whole.

5. One should prepare one's life planning keeping in view of his skills and capabilities, he should be very systematic within realistic perspective of surroundings.

6. One should be able to meet the demands of life and should shoulder one's daily responsibilities.

7. One should be adaptable to understand the problems relating to any phase of one's life and try to solve them in that particular situation.

8. One should be able to contribute in a creative and constructive manner to bring about the desired changes in the physical environment, social and cultural context to make environment lively.

9. One should have a clear vision in every sphere of life, think positively and innovatively to take quick decisions.

10. One should be radical, flexible and amenable to change in accordance with the demands and time.

11. One must keep in mind the existence of the Almighty, i.e., 'Ishwar' and any action or thought should be 'samarpit' (dedicated) to the Almighty power of the world and never be consequence-oriented. This will give peace and happiness throughout life.

12. One must develop the sense of humour, delightfulness and enthusiasm with managing emotions effectively so that emotionally balanced person may feel emotionally secure.

13. One must be adjusted if he keeps the requirements of reality prevailing values and norms. He should also keep in mind three things- time, place, and person – at the time of taking any step.

14. One should have the competence to discriminate between right and wrong, good and bad. He should be able to ignore fear of unknown or speculative thinking and have the ability to control fear for better mental health.

15. One should develop his integrated personality with consistency of behaviour.

At least one should fix the satisfactory level in accordance with all realities of his life, only then one will feel life satisfaction. Instead of criticizing others, one should evaluate and overcome one's weaknesses.

Personality structure, kinship, caste, class, friend, circle, neighborhood, work organizations, associations, clubs, community, culture, religion, etc, play a determining role in shaping of mental health a person.

Pradhan et al., (2006), have divided these into six factors that influence a person's mental health.

1. Individual Factors include a person's biologic make up having a sense of harmony in one's life, vitality, finding meaning in life, emotional resilience or hardiness, spirituality, having positive identity.

2. Interpersonal Factors include effective communication, helping others, intimacy and maintaining a balance of separateness and connection (sense of belongingness), family and social support.

3. Social-Cultural factors include having a sense of communication, access to adequate resources, intolerance of violence, social organization, time orientation, environmental control.

4. Self-Esteem plays a significant role in determining mental health, people with high self-esteem experience less stress and strain and shoulders their responsibilities very well.

5. Internal Locus of Control is associated with mental health. They take responsibility for their own actions and view themselves as having control over their destiny. They are managed by themselves rather than by external factors.

6. Emotional Intelligence is positively higher related with general health, healthy coping style, empathy, happiness, whole constructs like alexithymia, neuroticism, stressful events and mood fluctuations are negatively correlated. (Pradhan et al., 2006).

Some of those who maintain that all definitions of mental health are culture-bound hold that multiple should be used, depending upon. The values cherished by each society or sub-culture. Thus, criteria for mental health in the lower classes may have to be different from those for the middle classes.

The criteria of mental health suggested by Schneider (1955), are:

1. Adequate Contact with Reality:

The first of the criteria of mental health is adequate contact with reality. Contact with reality refers to the manner in which or extent to which we accept reality, mental health absolutely require a wholesome relation with the world of thing, people, events, and other realities with which we come into daily contact.

2. Healthy Attitudes:

A good, wholesome relation to reality is helped along a great deal by sound, healthy attitudes (Anderson, 1971). These attitudes are states of mind that we assume toward our work, friends, religion, racial group, death and a thousand other things that we run across in our lives.

3. Control of Thought and Imagination:

Adequate contact with reality and healthy attitudes are intimately related to the control of thought and imagination. An unbridled imagination is detrimental to mental health because it impairs the relation between mind and reality. Control of thinking can aid a great deal in developing healthy attitude, as well as in furthering a wholesome perspective regarding reality.

4. Mental Efficiency:

The control of thought and other mental abilities is of basic importance to the achievement of mental efficiency. Efficiency is associated with mental stable personalities.

5. Integration of Thought and Conduct:

Integration of thought with conduct is important to mental health. Integrity is determined by consistent and reliable behaviour that instills faith, trust, and confidence in those with whom one deals.

6. Integration of Motives and Resolution of Conflicts:

The integration of thought with conduct is paralleled in the mentally healthy person by the ability to integrate complemented by wholesome resolution of mental conflicts.

7. Feeling of Security and Belonging:

The insecure person will find it difficult to meet any of criteria of mental health.

8. Adequate Concept of Self:

Mental health requires an adequate concept of self-feeling of personal inadequacy, inferiority, or insecurity does not foster a healthy self-concept. A wholesome concept of self, based upon objectivity, common sense, humility, and an adequate scale of values, is a desideratum of mental health.

9. Adequate Ego-Identification:

The growth of an adequate self-concept is an important step toward adequate ego-identification. In the ceaseless struggle to cope with the requirements of self and of reality and to deal resolutely with threats, frustration, and conflicts, we must have a firm grip on our own identity.

10. A Healthy Emotional Life:

Emotional health is an integral part of mental health because emotions pervade mental life. In the absence of emotional control, mental health is most likely to be disrupted.

These are ten attributes of mental health which has presented by Lebo (1961):

1. A mentally healthy person is able to face and overcome obstacles without being permanently upset. The person with good mental health is resilient. He is soon working realistically to overcome environment frustration or set back.

2. A mentally healthy person is able to match desires with reality and not allow wishes for the unobtainable to disrupt his present performance.
3. A mentally healthy person is congenial. While he is aware of the faults some others may have, he views people generally as amiable and helpful. He enjoys associating and working with his fellow humans and can sympathize with their distresses and enjoy their successes.
4. The mentally healthy person recognizes a debt to society. He realizes that he has social as well as personal help to promote mental health.
5. The mentally healthy person is reliable in his behaviour and in his emotional state. He is consistent and so can be corrected upon by others because his present action are governed by reason instead of impulse, within or emotion.
6. The mentally healthy person is adaptable. He realizes that when a disturbing situation cannot be changed, be himself can change. Good mental health implies a willingness to examine the possibilities of change in oneself.
7. Good mental health includes productivity.
8. A mentally healthy person has good time orientation, which enables one to work in the present while planning for the future.
9. A mentally healthy person is self-reliant. When confronted with the facts he can decide without undue hesitation or vacillation.
10. Willingness to be appraised is a healthy sign because he realizes that ambitions must be brought in line with attitudes in order to experience pleasure in success.

The most comprehensive and definitive summary of the multiplicity of criteria used in defining mental health is that of Jahoda (1985). She rules out certain criteria as unsuitable because they are unsatisfactory for research purposes. "Absence of disease", for instance, is rejected as a criterion, not only because of the difficulty in circumscribing diseases but also because common usage of the term "mental health" now includes something more than the mere absence of a negative value. "Statistical normality" is also considered unsuitable on the grounds that the term is unspecific, bare of content, and the fails to come to groups with the question. Finally, "happiness" and well-being" are ruled out because they involve external circumstances as well as individual functioning.

In the present study the following set of components of mental health status are considered.

2.2.1.4.1 Attitudes toward the Self

The mentally healthy attitude toward the self is described by terms such as self-acceptance, self-confidence or self-reliance. Self-acceptance implies that a person has learned to live with himself, accepting both the limitation and possibilities he may find in himself. Self-reliance carries the connotation of self-confidence and, in addition, of independence from others and, of initiative from within (Jahoda 1985).

2.2.1.4.2 Positive Attitude toward Others

The normal individual feels that he is an accepted member of a social group, that he is liked by the members of that group, and that they, in turn, are liked by him. Ruesh and Bateson (1951), considered that the mentally ill, as persons who are deficient in some of the skills essential to full communication with others.

Taylor (1964), found that the over-achiever is more concerned with social acceptance than the under-achiever, the over achiever tends to establish positive relations with his peer. But a contradictory finding was observed by Pal and Saxena (1970); Astin (1964); Demos and Weijola (1971), concluded that adjustment with community has been consistently correlated positively with academic success.

2.2.1.4.3 Self-Actualization

This criterion is concerned with what a person does with his over a period of time Goldstein (1940). According to Moslow (1970), the most important and useful characteristic of self-actualizing people are:

1. More efficient perception of reality and more comfortable relations with it.
2. Acceptance (of self, others, nature)
3. Spontaneity, simplicity, naturalness
4. Problem-centeredness
5. A need for privacy – the quality of detachment.
6. Autonomy, independence of culture and environment.
7. Continued freshness of appreciation – perhaps a fact perception of reality
8. Mystic in 'peak' experience
9. A deep feeling of identification for all mankind.

10. Close interpersonal relations with a few others

11. A democratic character structure

12. Strong moral and ethical standards

13. Philosophical, unhostile sense of humor.

14. Creativeness

15. Hesitance to enculturation.

Spoke about the process of self-actualization as occurring in every organism and not only in the healthy one. "There is only one motive by which human activity is set going: the tendency to actualize oneself". The process of self-actualization is described in global terms that make it difficult to identify constituent parts. The various authors seem to emphasize one or more of the following aspects: (1) self-concept; (2) motivational process; and (3) the investment in loving, referring to achievements of the self-actualizing person as demonstrated in a high degree of differentiation, or maximum development, of his basic equipment. The greater the amount of growth motivation, the healthier person is. Growth motivation leads beyond tension reduction to self-actualization of potential capacities and talents, to division to a mission in life or a vocation, to activity rather than rest or resignation. Investment in living is the capacity to evoke an empathetic, warm or compassionate response from others. The healthy individual demonstrates concern for others and does not center all his strivings on satisfying his own needs (Jahoda, 1985).

2.2.1.4.4 Integration

Integration refers to the relatedness of all process and attributes in an individual integration as a criterion for mental health is treated with emphasis on one of the following aspects: (1) a balance of psychic forces in the individual, (2) a unifying outlook on life, emphasizing cognitive aspects of integration, and (3) resistance to stress. Balance of psychic forces implies the notion of a balance between ego, superego, it does not aim at eliminating or denying their demands. The unifying philosophy of life results in the individuals feeling that there is purpose and meaning to his life. The use of the term resistance to stress connotes behaviour under stress-resilience, anxiety, or frustration tolerance, and the like leads to greater concreteness in specific criteria than does the use of the more general concept integration.

2.2.1.4.5 Autonomy

The term of autonomy denotes a relation between individual and environment with regard to decision-making. Autonomy means a conscious discrimination by the individual of environmental factors he wishes to accept or reject. Both of two aspects: (1) the nature of the decision-making process, emphasizing the regulation from within, in accordance with internalized standards; (2) the outcome of the decision-making process in terms of independent actions. One's behaviour should not be determined by external exigency alone, but dictated also from within, based upon that inner organization of values, needs, belief, accomplishments and still unrealized goals, which together comprise that individual's world view (Jahoda, 1985).

2.2.1.4.6 Perception of Reality

Perception of reality is called mentally healthy when what the individual sees corresponds to what is actually there. In the mental health literature, perception of reality is discussed invariably as social perception, meaning that the conditions under which perception occurs or the object of perception, or both, involve other human beings. Two aspects of reality perception are suggested as criteria for mental health: perception free from need distortion; and any empathy or social sensitivity.

Jahoda (1950), introduced correct perception as a criterion for mental health status. In close conjunction with adaptation to reality, correctness of perception means that whatever the individual perceives, there must be some objective cues to fit the resulting percept. Perception free from need-distortion is most difficult when the object of perception is a person the self or others. The major requirement of the healthy person in this area is that he treats the inner life of other people as a matter of worthy of his concern and attention. Implicitly, he is also expected to arrive at conclusions about others that are free from distortion.

2.2.1.4.7 Environmental Mastery

There are two central themes pervading the relevant literature: The theme of success and the theme of adaption. The former is specified as achievement in some significant areas of living; the latter is toned-down version of the former, implying appropriate functioning with the emphasis more often on the process than on its results.

Six aspects of environmental mastery are suggested by Jahoda (1985), as criteria for mental health. They are:

1. The ability to love,
2. Adequacy in love, work and play,
3. Adequacy in interpersonal relations,
4. Efficiency in meeting situational requirements,
5. Capacity for adaptation and adjustment,
6. Efficiency in problem solving.

2.2.1.4.8 Optimism

Optimism is to be an important criterion in determining the mental health level of any person as revealed in the studies of Klein and Donald (1960); Pathak (1971). It was found in Pathak's study that eighty four percent of the low achievers frequently expressed fear of failure in examination and lack of interest in studies, whereas the high achievers were more optimistic about academic future and they aspired to achieve high standards.

One of factors affecting mental health is self-efficacy , which has a valuable place in different aspects of life and health and main role in individuals' thinking modes, their decision-making, the quality of their encounter with problems, their depression and anxiety status and so on (Maddux, 2002).The details are given below:

2.2.2 Self-Efficacy

When an action is being performed; self-efficacy determines the amount of effort invested and the perseverance. People with self-doubts are more inclined to anticipate failure scenarios, worry about possible performance deficiencies and abort their attempts prematurely. People with an optimistic sense of self-efficacy, however, visualize success scenarios that guide the action and let them persevere in the face of obstacles (Schwarzer, 1997).

Many of human behaviors are excited and controlled by the self-influence mechanism. Among the self -influence mechanisms, the belief of personal self-efficacy is more important and comprehensive than the others (Bandura, 1997).Virtually all people can identify goals they want to accomplish, things they would like to achieve and things they would like to change. However, most people also realize that putting these plans into

action is not a simple task. Bandura (1997), found that an individual's self-efficacy plays most important role in how goals, tasks and challenges are approached.

The strength of people's firm belief in their own effectiveness is likely to affect whether they will even try to cope with given situation. At this initial level, perceived self-efficacy influences choices of behavioural actions. According to Compeau and Higgins (no date), "Understanding self-efficacy is important to the successful implementation of systems in organizations. The existence of a reliable and valid measure of self-efficacy makes assessment possible and should have implications for organizational support, training, and implementation".

According to Bandura (1986), higher perceived self-efficacy leads to effort and persistence at a task, whereas low self-efficacy produces discouragement and giving up. Self-efficacy has an influence on preparing action because self-related cognitions are a major ingredient in the motivation process. Self-efficacy levels can enhance or impede motivation. People with high self-efficacy choose to perform more challenging tasks (Bandura, 1997; Schwarzer, 1992). They set themselves higher goals and stick to them. Actions are pre-shaped in thought, and people anticipate either optimistic or pessimistic scenarios in line with their level of self-efficacy. Once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy. When setbacks occur, they recover more quickly and maintain commitment to their goals. High self-efficacy also allows people to select challenging settings, explore their environment, or create new ones. Some people harbor self-doubts and cannot motivate themselves. They see little point in even setting a goal if they believe they do not have what it takes to succeed.

The essential distinction between self-efficacy and similar constructs, such as self-esteem, self-concept, locus of control, and so on, lies in the following three aspects:

1. Self-efficacy implies an internal attribution (I am the cause of the action),
2. It is prospective, referring to future behaviors, and
3. It is an operative construct, which means that this cognition is quite proximal to the critical behavior, thus being a good predictor of actual behavior.

The concept of self-efficacy was first of all put forth and developed by Albert Bandura (1977, 1986). The details are given under the following sub-heads:

1. Theory of Self–Efficacy
2. Theory of General Self-Efficacy
3. Strong Sense of Self-Efficacy
4. Weak Sense of Self-Efficacy
5. Role of Academic Self-Efficacy
6. Role of Students' Self-Efficacy
7. Role of Teacher Trainees' Self-Efficacy
8. Measurement of Self-Efficacy

2.2.2.1 Theory of Self–Efficacy

Self-efficacy is a key concept in Bandura's social learning theory (Bandura, 1977). The construct of self-efficacy was introduced by him and represents one aspect of his social-cognitive theory (Schwarzer, 1997).

Bandera's Social Learning theory (1977 and 1986), is the main theory and this research is chiefly based on. This theory emphasizes the interaction between behaviour and environment, focusing on behaviour patterns the individual develops to deal with the environment instead of instinctual drives. Models of behaviour can be developed through face to face experiences or through the monitoring of the responses of others. This theory claims that we learn the way we behave by adapting ourselves to readymade models. Consequently, the child is able to learn how to adapt himself to this new behaviour by watching the others do it.

As Bandura puts it (1986), self-efficacy refers to personal confidence in one's abilities for a successful accomplishment of certain tasks. Self-efficacy beliefs are significant influential factors of whether individuals will be able to expend effort on a task and continue to cope with a difficulty. Individuals with a high level of self-efficacy attempt tasks and keep up trying even though tasks might be difficult, while individuals with a low level of self-efficacy most of the times end up, giving up easily. As Bandura explained (1986), an individual's beliefs about his abilities make up his sense of self efficacy. The two fundamentals based on Bandura's theory are related to the fact that individuals make personal interpretations of their past achievements and failing experiences and consequently they set goals upon these interpretations.

According to Bandura (1986), people tend to avoid situations they believe exceed their capacities, but they are willing to undertake and perform those tasks or activities they consider themselves to be capable of accomplishing successfully. In his unifying theory of behavior change, Bandura hypothesizes that expectations of self-efficacy determine whether instrumental actions will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and failures. According to the theory and the research, self-efficacy makes a difference in how people think, feel, and act. In terms of feeling, a low sense of self-efficacy is associated with depression, anxiety, and helplessness. Persons with low self-efficacy also have low self-esteem, and they harbor pessimistic thoughts about their accomplishments and personal development. In terms of thinking, a strong sense of competence facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and academic achievement.

Bandura (1986), defined self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances." In other words, self-efficacy is a specific situation of self-confidence (Bandura, 1986), a belief that one is competent to handle the task at hand. People with high self- efficacy – that is, those who believe they can perform well-are more likely to view difficult tasks as something to be mastered rather than something to be avoided.

According to the theory, self-efficacy is enhanced by four factors: enactive attainment (successful performances), vicarious experiences, verbal persuasion, this means that:

1. Successful past experiences lead to higher mastery expectations, while failures lower them.
2. Observing other people perform activities successfully can lead to the observers into believing that they also can improve their performance as they learn from watching others.
3. People can be persuaded through suggestion into believing that they can cope successfully with specific tasks.

4. The individual's emotional states influence self-efficacy judgments with respect to specific tasks. Emotional state such as anxiety can lead to negative judgments of one's ability to complete a task.

According to Bandura (1977), there are four major ways of developing a strong sense of self-efficacy; performance accomplishment, vicarious, verbal persuasion, and emotional arousal.

1. Performance Accomplishment:

Performance accomplishment is the most important source of self-efficacy because it is based on a person's own experience. The Experience of success enhances self-efficacy, while regular failures decrease self-efficacy. Successful accomplishment of behaviour is likely to raise the individual's self-efficacy in mastering particular activity (Bandura, 1977).

Bandura views performance accomplishments as the most important source of efficacy information. He suggests that self-efficacy is increased when individuals experience outcomes better than the one they expected (McIntire and Levine, 1991).

2. Vicarious Experience:

Vicarious experiences learning that occurs as a result of observing others perform specific activities. For example, observing others perform a threatening activity without unpleasant consequence can generate expectations in individuals that they too can succeed or improve if they persevere in their efforts. They convince themselves that if others can do it, they should be able to achieve at least some improvement in performance (Bandura and Barab, 1973).While vicarious experience is a weaker influence on self-efficacy than performance accomplishments; it can enhance an individual's expectations of the successful completion of a task.

3. Verbal Persuasion:

Verbal persuasion is the most often source of self-efficacy because it is easy to use. By giving instructions, suggestions, and advice, individuals are led into believing that they can cope successfully with what has overwhelmed them in the past. Verbal encouragement from a career or partner may help instill the belief in this individual that he can master those activities. Although efficacy expectations produced by verbal persuasion are weaker than those stimulated by performance accomplishment and

vicarious experience, it can contribute to successful performance when it is realistic (Bandura, 1977).

4. Emotional Arousal:

Emotional arousal is another source of information that can influence self-efficacy. People can estimate their degree of confidence by the emotional state (e.g., anxiety, stress and arousal) the experience as they contemplate whether to engage in a particular activity. Strong emotional reactions to a task provide clues about the anticipated success or failure of the outcome. When an individual experiences negative thoughts and fears about his ability, those affective reactions can lower the individual's level of self-efficacy and trigger additional stress that can paradoxically result in the inadequate performance that is feared (Bandura, 1977).

The 'Bandurian Perspective' regards the idea that the general self-efficacy construct has variable strength depending on the dimension of life being considered and the extent of overlap it has with other dimensions (Woodruff and Cashman, 1993).The details of theory of general self-efficacy are given below:

2.2.2.2 Theory of General Self-Efficacy

Self-efficacy is thought to have three dimensions:

1. Magnitude, which deals with the belief about performance in increasingly difficult aspects of the task;

2. Strength, involving the effort placed on maintaining the behavior in spite of obstacles;

3. Generality, which concerns the broadness of applicability of the belief (Woodruff and Cashman, 1993).

Self-efficacy is commonly understood to be domain-specific. That is, one can have more or less firm self-beliefs in different domains or particular situations of functioning. But there is also a general sense of self-efficacy that refers to global confidence in one's coping ability across a wide range of demanding or novel situations. General self-efficacy aims at a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer, 1992). If self-efficacy is employed as a predictor of broad outcomes, such as quality of life, well-being, or overall

adaptation and health, it is justified to use a correspondingly broad measure of general self-efficacy.

"The concept of general self-efficacy provides an important conceptual tool for viewing healthy functioning" (Shelton, 1990). A more recent conceptualization of self-efficacy that has generated considerable interest in the literature is as a global confidence in one's coping ability a wide range of demanding or novel situation (Sherer, et al., 1982).

Mark Sherer's theory of general self-efficacy defines the global nature of this topic. He thought these unrelated fields contributed to a general set of expectations that the individual carries with him into new settings and experiences (Shelton, 1990).Sherer suggested that general self-efficacy is the summation or average of the entire individual task efficacy. Sherer also invented a self-efficacy scale which measures general self-efficacy expectancies in educational/ vocational and social areas (Woodruff and Cashman, 1993).

One aspect both Bandura and Sherer agree upon is viewing self-efficacy as a personality trait with relative stability. They feel this is what predicts an individual's performance in specific situations (Shelton, 1990). According to Luszcynska, Gutierrez – Dona, and Schwarzer (2015), general self-efficacy is a universal construct and it characterizes a basic belief that is intrinsic in all individuals. Furthermore, general self-efficacy allows for the possibility of explaining is less specific.

Being able to recognize and measure the strength of general self-efficacy can aid a person's progress toward greater achievement. The concept of general self-efficacy shows an adequate explanation for why some individuals have a more confident outlook toward life. Regardless of the difficulty of the task, they may be more determined to achieve it completely (Shelton, 1990).

The theory of general self-efficacy is still in the early stages of development and its potential has yet to be completely understood (Shelton, 1990). The theory states that successful achievements lead to increases in self-efficacy expectations and that mastering these in one area may generalize into other areas of behavior (Sherer, Maddux, Mercandante, Dunn, Jacobs and Rogers, 1982). It is thought that these experiences must

hold some sort of personal value in order to positively or negative affect the level of self-efficacy (Shelton, 1990).

According to the theory, two types of expectancies bring to bear powerful influences on behavior:

1. Outcome Expectancies: the belief that certain behaviors will lead to particular outcomes.

2. Self-efficacy Expectance: the belief that one can successfully perform the behavior in question (Sherer, Maddux, Mercandante, Dunn, Jacobs and Rogers, 1982).

According to Shelton (1990), "The theory of self- efficacy "provides a base for positive mental functioning, whose outlook may stimulate new techniques and ideas for emotional healing and more productive living". A study conducted by Compeau and Higgins (no date), was done to determine the role of individuals' beliefs about their abilities to competently use computers in the determination of computer use. The researchers found that an "individual's self-efficacy and outcome expectations were positively influenced by the encouragement of others, in their work group as well as others use of computers".

A strong sense of self-efficacy enhances human accomplishment and personal well-being in several ways. The details are given below:

2.2.2.3 Strong Sense of Self-Efficacy

Self- efficacy also is effective on learning and development. Students who have high self- efficacy are more successful than those who have low self - efficacy (Pajaresand Schunk, 2002). If a person believes that he cannot reach the expected results, or cannot prevent unacceptable behaviors, he will have low motivation. Although there are many elements which act as exciting behaviors but all of them are obedient to personal beliefs. The beliefs of self-efficacy are the bases of human activities. The people who have high self-efficacy, they have high expectations to get a successful result. In contrast, people who have doubts about their abilities, their chances in gaining success would be decreased. People who have high efficacy believe that they can encounter problems and conditions effectively. Due to their success expectation against problems, they try hard to do their duty, so they often act at higher level. These people have more

confidence in their ability than the people who have low self-efficacy; they have a little doubt about themselves. They look at the problem as a struggle not as a threat and they look for new conditions actively (Liaw, 2009).

According to Bandura, when a person believes that he has the development and success ability, he has gotten self-efficacy. The pattern of thinking, motivation, excited reflex and people understanding of their self-efficacy, selecting activities, the rate of attempts for a position all affect their performance when they do an activity. So, when people with high self-efficacy encounter problems, he shows high motivation and insistence which consequently increase their performance (Cakiroglu, 2008). As a person has more real realization of his surrounding and more self-efficacy, it affects persons` selections and hard working in facing with difficulties severely and these beliefs can predict persons` behavior favorably (Azari, 2012). The feeling of self- efficacy makes persons to act marvelously in acing with obstacles by using skills.

Self-efficacy is created from four resources or combination of them which control the increment and decrement of self-efficacy. The most important resource of self-efficacy is the skills of experiences, that is, previous performance. Generally a successful performance will increase the efficacy experiences and will decrease failure ones. The second efficacy resource is social patterning, that is, replacement business which is provided by others. Social contenting also can raise or reduce personal efficacy. The last efficacy resource is personal physiology and excited condition. Generally extra excitement will reduce performance. When people afflicted with fear and extra excitement at high levels, expectation of their efficacy will be reduced (Bandura, 1994).

A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression. In contrast, people who doubt their capabilities shy away from difficult tasks which they view as personal threats. They have low aspirations and weak commitment to the goals they choose to pursue. They fall easy victim to stress and depression (Bandura and et al., 1999).

According to Sherer self- efficacy as person's whole trust in himself to successful doing of a set of needed actions to achieve its purposes (Zajako and Linch, 2005 quoted by Gheibie et al., 2012). On the other hand, he believed that self-efficacy beliefs are

based on personal understanding from his personal performance (Kert, Dowyar and Kalick, 2011 quoted by Gheibie and et al., 2012).

Individuals with high self-efficacy expectations are more likely to try new experiences and pursue them. Once success is met, their future self-efficacy expectations are likely to rise. Results from previous studies on self-efficacy expectations may also be useful in improving self-esteem when this is seen as a goal (Sherer, Maddux, Mercandante, Dunn, Jacobs and Rogers, 1982). In a research by Cherian and Jackob they found out that people with high self-efficiency have a more positive motivation and performance (Cherian and Jackob, 2013).

A strong sense of self-efficacy enhances human accomplishment and personal well-being in several ways. According to Bandura (1992), people with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Those people who have a strong sense of self-efficacy generally consist of the following characteristics:

1. These people view challenging problems as tasks to be mastered.
2. Easily develop a deeper interest in the activities in which they participated.
3. They form a stronger sense of commitment to their interests and activities.
4. Recover quickly from setbacks and disappointments of the situation.

Self-efficacy can be a powerful predictor for people's achievements. Studies have shown that individual's with lower self-efficacy and different levels of self-efficacy of an individual can enrich or hamper the motivation to act in any situation. The details are given below:

2.2.2.4 Weak Sense of Self-Efficacy

According to Bandura (1997), self-efficacy is a constructive power which effectively organizes the cognitive, social, emotional and behavioral skills of humans to achieve different subjects. In his opinion, having knowledge, skills and forgone people's achievements are not appropriate predictors for their future performance, but the people's beliefs about their abilities influence the quality of their performance. There is a clear difference between having different skills and the ability to combine them with appropriate method for doing duties in different conditions. "People completely know,

what duties must they do and for which they have necessary skills, but often they are not successful in using the skills appropriately" (Bandura, 1997).

Pajares (2002), believed that the people who have weak self-efficacy see the duties and jobs difficultly, so they are more stressful while powerful self-efficacy beliefs cause calmness and success. Thus, self-efficacy can be a powerful predictor for people's achievements. A low self-efficacy is associated with a low self-esteem. Individuals with a low self-esteem have pessimistic thoughts about their accomplishments and personal development. Having a strong sense of competence helps cognitive processes and performance in areas such as academic achievement (Schwarzer, 1997). According to researchers (Locke and Latham, 1990), stated that individual's with high level of self-efficacy tends to pursue more challenging goals than individual's with lower self-efficacy and different levels of self-efficacy of an individual can enrich or hamper the motivation to act in any situation.

According to Bandura those people who have low or weak self-efficacy they generally consist of the following characteristics:

1. They avoid challenging tasks.
2. Believe that difficult tasks and situations are beyond their capabilities.
3. Generally focus on personal failings and negative outcomes.
4. Rapidly lose confidence in personal abilities (Bandura, 1994).

Self-efficacy is a multidimensional construct that varies according to the domain of demands. The details with respect to the role of academic self-efficacy are given below:

2.2.2.5 Role of Academic Self-Efficacy

Self-efficacy is defined as a self-evaluation of one's competence to successfully execute a course of action necessary to reach desired outcomes (Bandura, 1977, 1982 and 1986).It is a multidimensional construct that varies according to the domain of demands (Zimmerman, 2000), and therefore it must be evaluated at a level that is specific to the outcome domain (Bandura, 1986; Pajares, 1996). Thus, in academic settings, one should measure academic self-efficacy rather than generalized self-efficacy, where academic self-efficacy refers to students' confidence in their ability to carry out such academic tasks as preparing for exams and writing term papers. A large meta-analysis of studies of

self-efficacy in academic environments concluded that the most specific academic self-efficacy indices had the strongest effect on academic outcomes, while the more generalized measures were less closely associated (Multon, Brown and Lent, 1991).

Students' career is a by-product of many factors. One of the most important variables is students' self-efficacy. The details are given below:

2.2.2.6 Role of Students' Self-Efficacy

One's beliefs organize one's world and give meaning to one's experiences. As a result, how these beliefs can build different psychological worlds for one and how they can make one think, feel, and act differently in similar circumstances are of great importance. People generally avoid tasks where self-efficacy is low. Students with greater self-efficacy are more likely to work diligently; especially in the face of difficulties, than those who are skeptical of their abilities (Aiken, 1976).

Students with high self-efficacy are able to pay serious attention, organize, and elaborate material effectively through their cognitive aspect (Pintrich and Schunk, 1996; Zajacova, Scott, Lynchand Espenshade, 2005 and Heslinand Klehe, 2006).

Self-efficacy is a learned process. Social cognitive psychologists (Bandura, 1989; Schunk, 1989) identified three factors in the development of high and low self-efficacy discussed below:

1. Students' Earlier Academic Record

Students with poor grades in previous examinations develop low self-efficacy. Teachers are required to help them in organizing cognitive components of learning and memory. In addition to teachers' guidance, such students recognize the importance of effort and persistence for learning and achieving a goal by developing resilient self-efficacy (Bandura, 1989).

Teachers must provide difficult task to students which can be achieved with effort, and hard work (Ormrod, 2000). This is one of the effective cognitive processes to re-socialize students to achieve goals. It goes without saying that students whose previous academic results are excellent, teachers must further enhance high self-efficacy of such students and one effective techniques is intrinsic motivation.

2. Teachers' Message

Motivational messages of teachers in particular will develop students' self-efficacy. Teachers politely point out the drawbacks of the students' work. Over was helping behavior may have an adverse impact on students' confidence regarding performance of academic work. Frequent guidance and help of the teachers may develop students' negative attitude towards capacities and believe to learn and achieve is injured. It conveys the message that "I don't think you can do this on your own" (Schunk, 1989).

3. Success and Failure of Others

This is based on observational learning. Students observe the output of their class fellows and convinced that when their class fellows can improve grades and learn lessons, they are also able to learn and understand the difficulty. Class fellows of same age are significant model to enhance greater high self-efficacy as compared to teachers (Schunk and Hanson, 1985). Peer models have greater impact on developing self-efficacy in particular observing those students who had difficulties at some stage; later on removing barriers in academic tasks. Observation plays a significant role to enhance self-efficacy. Students with low self-efficacy will avoid interaction with peers. Such students have difficulties in making friends. Interaction with class fellows also enhances self-efficacy.

Students' self-efficacy can influence choice of activities, effort expenditure, persistence, and task accomplishments. Without a sufficient level of self-confidence a person will not have courage to try new things and will most likely settle for mediocrity. There will be no any improvement in our society if the students of today who will be leaders of tomorrow are always afraid to try the unknown and untraveled frontiers. A nation needs people who have the staying power to survive the harsh realities of life. High self-efficacy is one of the many character traits that a person should possess in order to make it in this highly competitive world.

There is evidence to suggest that teacher training assignments and teaching practice have different influences on personal and general teaching efficacy of teacher trainees. The role of teacher trainees' self-efficacy discussed below:

2.2.2.7 Role of Teacher Trainees' Self-Efficacy

The interest in looking at teacher trainees' teaching efficacy is due in part to the suggestion forwarded by Bandura that efficacy beliefs would be easily constructed in

early stages of learning or training, and that once these efficacy beliefs are established, they are quite permanent and resistant to change. Another reason is that the construct appears to have long-term implications which include aspects of interest to teacher education in general such as job satisfaction and length of a career in teaching.

Learning style assessments provide teacher trainees an opportunity to learn how they are likely to respond under different circumstances and how to approach information in a way that best addresses our particular needs. The learning style assessment is found helpful in examining how we take in information through our senses. Researchers call these sorts of assessments "perceptual modality assessments". They look at how we see, hear, feel and move through the world. These perceptions deeply affect our ability to learn. By recognizing and understanding their learning styles, teacher trainees can use techniques better suited to them. This improves the speed and quality of their learning. This will enhance the self-efficacy of teacher trainees.

Teacher trainees with a strong sense of efficacy tend to exhibit greater levels of planning, organization and enthusiasm. They tend to be more open to new ideas, more willing to experiment with new methods to better meet the needs of their students, and more committed to teaching. They persist when things do not go smoothly and are more resilient in the face of setbacks. So in order to adopt better teaching strategies, teacher trainees have to develop self-efficacy.

Although there is general consensus about the meaning of self-efficacy, it has been conceptualized and measured in a number of ways. Measurement of self-efficacy have discussed below:

2.2.2.8 Measurement of Self-Efficacy

Bandura (1977), originally argued that self-efficacy should always refer to the particular task or specific behaviour that is being predicted. In other words, he conceptualized self-efficacy as primarily a situation – or domain – specific belief. Therefore, he argued that when developing a self- efficacy scale, items should reflect various levels of task demands within a given activity. Items should represent various levels of difficulty with individuals then required to indicate their level of confidence in performing those specific tasks. Similarly, Bandura's original conceptualization suggests

that self-efficacy scales should also be designed to assess self-efficacy under different situational circumstances.

The term refers to one's potential in many life domains such as psychological, social, and activities of daily living. Thus more than one aspect of functional ability need to be considered when determining an individual's general of perceived functional ability in their daily life. This approach is consistent with Bandura's view that self-efficacy scales must assess all facets of the domain that is being measured. Furthermore, assessment of various aspects of the domain of functional ability provides an opportunity to identify specific, area where an individual may experience low self-efficacy. An individual for example, may be confident about participating in social activities but may have low self-efficacy in performing daily chores or controlling negative thoughts.

The General Self-efficacy Scale (G.S.E.S.), claims construct validity across different cultures. A study conducted by Schwarzer, Babler, Kwiatek, Schroder and Zhang (1996), supports the finding that self-efficacy construct tends to be a universal one. The study compared two new scale adaptations (Spanish and Chinese) with the original German version. Subjects consisted of university students. "Results showed that in all three languages, the psychometric properties were satisfactory. The reliability, which included the areas of item-total correlations and factor loadings, indicated that the general self-efficacy scale can be seen as homogenous and one-dimensional".

That self-efficacy belief is a vital personal resource has been amply documented in the meta-analyses of findings relating to different spheres of functioning, achieved under laboratory and natural conditions (Bandura, 2000). The construct of self-efficacy reflects an optimistic self-belief. This is the belief that one can perform novel or difficult tasks, or cope with adversity, in various domains of human functioning (Bandura, 1997b). It is clear that Bandura's view of self-efficacy relates to the explication of self-efficacy in specific domains, rather than a global sense of competence.

In this study, the operational definition of self-efficacy is refers to the general view of performance of one's coping abilities in a wide variety of situations and general view of person's belief in his or her own ability to organize and execute the courses of action required to achieve specific goals.

The findings of the above mentioned studies indicate that there is a positive correlation between mental health, self-efficacy and academic achievement. The details are given below:

2.2.3 Academic Achievement

There is no gain saying the fact that learning is not limited to mere acquisition of information, it also includes attitudes, interests, values, etc. Even though achievement is used in this broad sense, it is customary for schools and colleges to be concerned with the development of knowledge, understanding, and acquisition of skills. This is because the learning which educational institutions concern them with is predominantly intellectual. This may be in part owing to the fact that in the intellectual field the teacher can be relatively more certain of achieving the objectives he has set for himself than in other domains.

The teacher or the institution has certain objectives like "development of personality". Though this is undoubtedly a worthy goal, it is doubtful whether anything beyond the most superficial change could be obtained with the small number of hours of contact between the teacher and the taught in the school or college. Thus in practice achievement in school or college means 'academic achievement'.

Academic achievement is related to the acquisition of principles, and generalizations and the manipulations of objects, symbols and ideas. In other words, academic achievement means the academic status of the individual in different subject or as a whole. According to Wolman (1973), "Academic achievement is the degree or level of proficiency attained in scholastic or academic work."

Academic achievement, which is referred to as one's cumulative knowledge or skills in a particular subject at a given time, determines by scored tests, which are designed in accordance with the goals and principles of educational system of any country. The achievement is the result of active learning process that will be gained and realized with the help and support of educational and training activities (Salomon, 1994).

Having the motive for success is not the only factor affecting academic achievement, in that students' perception of the causes behind their success or failure will affect their academic achievement. According to Dweck and Leggett (1988), those who attribute their achievement to their efforts or abilities are more likely to be confident of

their progress and will expect more success in the future, so this will more likely to happen in the future. On the contrary, people who are seeking to achieve their goals from external sources or luck, i.e. factors beyond their personal control, are more likely to be uncertain of their abilities to achieve their goals, so this will be likely to occur in the future. Hence, those with realistic view of and the sense of personal responsibility for their success or failure are prone to more progress in their life.

For many investigators, intelligence plays a vital role in determining the academic achievement of student. The findings of various studies indicate that there is a positive correlation between intelligence and academic achievement. For some others, student's academic deficiency is not due to a single factor like intelligence, but a number of other relevant factors like interest, aptitude, expectancy, cognitive style, creativity, and level of aspiration. The details are given under the following sub-heads:

1. Model of Academic Achievement
2. Individual Difference in Academic Achievement

2.2.3.1 Model of Academic Achievement

A model of academic achievement was given by Gupta (1993). According to Gupta's model, the main factors of academic achievement are:

1. Background factors consisting of characteristics such as child rearing practices, home environment, parent-child relationship, family size, type of family, economic conditions of the family, educational status of the family, rural-urban residence, etc. of the learner.

2. Personality factors comprising of intelligence, creativity, thinking, perception, cognitive style, attitude, motivation, and many more concerned with the learner.

3. Institutional factors comprising of factors related to institution, such as climate of the institution and classroom, teacher characteristics, interpersonal relationship, methods of teaching, etc. The diagrammatic representation of the model is presented in Figure 2.1.
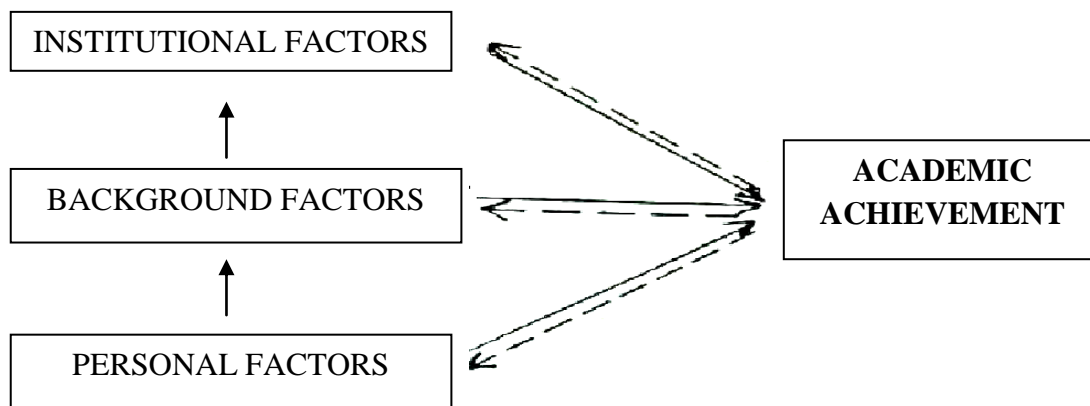
Figure 2.1

Alternative Model of Academic Achievement

This model reveals that academic achievement is affected by institutional and personality factors besides the background factors, which in turn affect both. Also, academic achievement has an impact on all the above three variables. There is a mutual inter-dependence of these variables on each other. The most significant feature of the above model is that the give emphasis to background variables, as the crucial determinants of academic achievement. Such model is to be given due consideration in investigations like the present one where social conditions are treated as background variables.

2.2.3.2 Individual Difference in Academic Achievement

The striking individual differences to be found in physique and in intelligence are also to be observed in measures of achievement. Even in the same grade, where students are getting the uniform instructions, we find vast ranges in academic achievement. These differences in academic achievement may be because of the variations in physical, psychological, social, and emotional conditions of the students.

The importance of academic achievement has raised several important questions for educational researchers. What factors promote achievement of students? How far do the different factors contribute towards academic excellence? The answer to such questions is not easy because of intricate human personality. Hence, efforts have always been made to find out strategies and mechanism to improve excellence. Therefore, many factors have been hypothesized and researched by the researchers. They come out with

different results, at time, complementing each other but at times contradicting each other. A complete and comprehensive picture of academic achievement still seems to elude the researchers. The search, therefore, continues and educational researchers all over the world are still seeking a breakthrough in elucidating this phenomenon.

2.3 SECTION 2: REVIEW OF RELATED LITERATURE

In this section, the literature reviewed under three heads. They are:

1. Mental Health and Self-Efficacy
2. Mental Health and Academic Achievement
3. Self-Efficacy and Academic Achievement

The details are given below:

2.3.1 Mental Health and Self-Efficacy

Self-efficacy has been defined as the belief that one is capable of performing in a certain manner to attain a certain set of goals (Miller and Dollard, 1941). It is believed that our personalized ideas of self-efficacy affect our social interactions in almost every way. Understanding how to foster the development of self-efficacy is a vitally important goal for positive psychology because it can lead to living a more productive and happy life. Bandura felt that expectations of self-efficacy were the most powerful determinants of behavioral change and that these expectations determine the initial decision to perform a behavior (Sherer, Maddux, Mercandante, Dunn, Jacobs and Rogers, 1982).

Mental health has an effective role in self-acceptance, positive communication with others, self-direction, domination on environment, setting some goals for life and personal development. One of factors affecting mental health is self-efficacy. It has a valuable role in the different aspects of life and health (Maddux, 2002; Dweck and Leggett, 1988). And main role in individuals' thinking modes, their decision-making, and the quality of their encounter with problems, their depression and anxiety status and so on (Kim. (2003). Individuals with high self-efficacy have ability to modify their negative mental modes (Ghanaei Chamanabad et al., 2011; Parto, 2011).

Researchers showed that general self-efficacy is negatively related to depression and anxiety, as two main components of mental health, and positive self-efficacy beliefs have an effective role in the treatment of mental diseases. Results of researches (Zumberg, Chang and Sanna, 2008; Ormord, 2006), indicated that generalized self-efficacy and problem solving orientation are related, but are not redundant with each other. Moreover, results indicated that although generalized self-efficacy is on Psychology, Counseling and Guidance an important predictor of psychological and physical functioning, problem orientation, specifically, negative problem orientation

added incremental validity in predicting additional unique variance in measures of functioning (Bandura ,1977).

Studies conducted by Rivas and Fernandez (1995), indicated that self-efficacy is an important factor in maintaining the mental health of adolescents. Specifically, higher self-efficacy was closely associated with avoidance of sadness and control of one's feelings. Furthermore a finding of (Robert, 1992) has shown that mental health and self-efficacy both are associated with each other. According to Muris (2002), has been indicated that significantly positive relationship between self-efficacy, depression and anxiety in adolescents. It was found that low level of emotional self-efficacy was strongly associated with high level of anxiety and depressive symptoms. Thus a high emotional self-efficacy could be essential in maintaining good mental health.

Self-efficacy has also been consistently related to levels of persistence (Bouffard-Bouchard, Parent and Larivee, 1991; Multon, Brown and Lent, 1991; Schunk, 1981). That is, when students view any task as difficult: results of these researchers has shown that students with higher self-efficacy tend to be more persistent than students with lower self-efficacy. Moreover the World Health Organization (2001), also stipulates self-efficacy is an important factor in developing and maintaining healthy over all well-being. There is also much evidence documenting the significant relation between self-efficacy beliefs and achievement in academic settings (Bandura, 1997; Multonet and et al., 1991; Schunk, 1981; Schunk and Miller, 2002), athletics (Zimmerman and Kitsantas, 1999) coping skills and health promoting behaviour.

Finding of researchers have shown that self-regulatory, self-efficacy and academic self-efficacy have a negative correlation with moral disengagement (making excuses for bad behavior, avoiding responsibility for consequences, blaming the victim) (Karademas, Kalantzi- Azizi, 2004). Social self-efficacy has a positive correlation with prosaically behavior. On the other hand, moral disengagement and prosaically behavior have a negative relationship (Manami, Suzuki, Shibata and Tsai, 2011).

Self-efficacy influences the way individuals feel, think, self-motivate and behave. These beliefs are influential in four ways: cognitive, motivational, and emotional and selection processes. Individuals who believe that they may control threats cannot imagine a destructive thought pattern but those who believe the reverse experience a higher

anxiety provoking stimulus. They look upon with anger on many aspects of their environment as threats and cause distress for themselves and harm their level of performance (Sobhi, rajabi and Procedia, 2010).

Results of researches indicated that self-efficacy expectations have a positive relationship with positive attitude and stress reducing strategies and a negative relationship with psychological symptoms and self-isolation and passive emotional acceptance or avoidance strategies (Parto, 2011).

All students must have enough mental health and self-efficacy to well encounter against various stressful factors and adapt for the existing status (Memichaei and Hetzl, 1975). Self-efficacy can reduce a sense of loneliness, shame, avoidance of social risks, self-depressing, low self-esteem and the weakness of social skills and in turn, promote the mental health. However, an important point about the relationship between self-efficacy and health is that social anxiety may have a negative effect on social self-efficacy in a socially threatening situation as well as on the sense of curiosity and feelings. Therefore, the relationship between self-efficacy and some of the variables of mental health seems to be more complicated than commonly imagined.

Self-efficacy, which has a valuable place in different aspects of life and health (Maddux, 2002) and main role in individuals' thinking modes, their decision-making, the quality of their encounter with problems, their depression and anxiety status and so on (Dweck, 1988). Individuals with high self-efficacy have ability to modify their negative mental modes (Kim. 2003).

Pajares (1997) described self-efficacy as individuals' judgment on their ability to achieve their own designed performance levels. Powerful self-efficacy results in calmness and can well predict mental health (Pajares and Schunk, 2002).Considering the study conducted by researchers, undertaken to investigate the role of self-efficacy on mental health of different populations, the need for research in this field requires obedience.

Considering the studies conducted by researchers have been shown the correlation between mental health and academic achievement as predictors of academic achievement of student. The details are given below:

2.3.2 Mental Health and Academic Achievement

Education and other learning interventions have been found to have a positive effect on various health outcomes (Grossman 2000 and 2005 for extensive surveys). Education directly affects health outcomes by making individuals more able to process information and thereafter more health conscious (a locative efficiency), or by improving the efficiency of treatment. For example, the more educated are more prompt to seek diagnosis and more diligent in following treatment (Goldman and Lakdawalla, 2001 or Goldman and Smith, 2002).

Higher Education is one of the main factors that facilitate individuals to achieve success in obtaining a profession in order to face different life challenges. College life can be challenging and difficult for a new student, thus requiring a higher degree of student initiative, determination, and self-monitoring.

Mental disorders account for nearly one-half of the disease burden for young adults in the United States (World Health Organization, 2008), and most lifetime mental disorders have first onset by age 24 years (Kessler RC et al., 2005). The college years represent a developmentally challenging transition to adulthood, and untreated mental illness may have significant implications for academic success (Kessler RC., et al., 1995), productivity (Wang P., et al., 2007), substance use (Angst J., 1996 & Weitzman ER., 2004), and social relationships (Kessler RC., et al., 1998).

According to the National Survey of Counseling Center Directors at 274 institutions (Gallagher, Sysko, & Zhang, 2001), 85% of center directors reported an increase in "severe" psychological problems over the last 5 years, including learning disabilities (71%), self-injury incidents (51%), eating disorders (38%), alcohol problems (45%), other illicit drug use (49%), sexual assault concerns on campus (33%), and problems related to earlier sexual abuse 34%. They estimated that approximately 16% of counseling centre clients had severe psychological problems (Gallagher, Gill, & Sysko, 2000). Furthermore, 84% of counseling centers indicated that the number of students with severe psychological problems was a concern (Gallagher, Sysko, & Zhang, 2001). Ninety-four percent of directors also noted an increase in the number of students coming for counseling who were already taking psychiatric medication. They estimated that 17% of counselling center clients take psychiatric medication, in contrast to 9% in 1994 (Gallagher, Gill, & Sysko, 2000). Eighty-nine percent of centers had to hospitalize a

student for psychological reasons and 10% reported a student suicide. Twenty-four percent of centers also gave a Tarasoff warning to a third party regarding a potentially dangerous client. Sixty percent of centres reported obsessive pursuit (stalking) cases (Gallagher, Sysko & Zhang, 2001).

Other data also confirm the high incidence and serious nature of mental health problems among college students. Student affairs administrators reported that they were spending more time dealing with troubled students and had seen marked increases in the following serious mental health problems on campus: Eating Disorders (+58%), Drug

Abuse (+42%), Alcohol Abuse (+35%), Classroom Disruption (+44%), Gambling (25%), and Suicide Attempts (+23%) (Levine & Cureton, 1998b, p. 96).

In general, students are coming to college "overwhelmed and more damaged than those of previous years" (Levine & Cureton, 1998b, p. 95). Twenty-eight percent of freshman polled in a national survey reported feeling frequently overwhelmed, and 8% reported feeling depressed (HERI, UCLA, 2000; This Year's Freshmen, 2001). A longitudinal study of psychological distress in college found that although distress levels peaked during the freshman year and then declined for most students, a "subset" of students manifested severe, chronic levels of distress that did not decrease over time (Sher, Wood & Gotham, 1996).

In spite of the preponderance of data that support the trend towards more severe psychopathology in the college student population, Sharkin (1997), has cautioned that the trend may be based more on perception and clinical impressions than on direct evidence. He recommended the use of standardized instruments to assess the incidence of psychopathology and changes in symptomatology over time and to determine which disorders are most likely to be seen at college counseling centers.

Mental health problems can have a profound impact on all aspects of campus life: at the individual level, the interpersonal level and even the institutional level. At the individual level, mental health problems can affect all aspects of the student's physical, emotional, cognitive, and interpersonal functioning. Common symptoms of depression may include disturbed mood, fatigue and low energy, sleep and eating problems, impaired concentration, memory, decision-making, motivation and self-esteem, loss of

interest in normal activities, isolation and social withdrawal, and in some cases suicidal or homicidal thoughts (APA, 1994, p. 327).

Mental health problems may also have a negative impact on academic performance, retention, and graduation rates. Brackney and Karabenick (1995), found that high levels of psychological distress among college students were significantly related to academic performance.

Students with higher levels of psychological distress were characterized by higher test anxiety, lower academic self-efficacy, and less effective time management and use of study resources. They were also less likely to persist when faced with distraction or difficulty and less likely to use effective learning strategies such as seeking academic assistance. Randall and Dobson (1993), determined that individuals with high levels of psychopathology have impaired information-processing skills, which are a critical component of academic performance and success.

According to Kessler, Foster, Saunders, and Stang (1995), 5% of college students prematurely end their education due to psychiatric disorders. They estimated that an additional 4.29 million people in the United States would have graduated from college if they had not been experiencing psychiatric disorders. Four types of disorders-Anxiety, Mood Disorders, Substance Abuse, and Conduct Disorder-were all "significant predictors of failure" (Kessler et al., 1995, p. 1,029). Svanum and Zody (2001), also found that substance abuse disorders were most strongly associated with lower academic performance GPA. Although retention theory has traditionally emphasized the importance of academic and social adjustment as key factors in persistence, personal adjustment and mental health factors should not be overlooked. A 6-year longitudinal study of college students found that personal and emotional adjustment was an important factor in retention and predicted attrition as well as or better than academic adjustment (Gerdes & Mallinckrodt, 1994). Students who had left the university in poor academic standing reported difficulties with anxiety and sleep (a symptom often associated with depression and other mental health problems). Transition and adjustment difficulties, isolation, loneliness, and self-doubt-issues that can be addressed in a counseling setting-have also been identified as negative influences on retention (Anderson, 1985 and Tinto, 1985).

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The correlation between education and health could also originate from three alternative reasons: first, a third factor such as genetic endowments, parental background or discount rate, affecting both education attainment and health (Fuchs, 1982). Second, the correlation reflects reverse causality from health to education or third, stems from non-classical measurement error, where qualification is correlated with the error term.

Driven primarily by prevention logic, this phase has drawn inspiration from the childhood risk and resilience scholarship, which has demonstrated that increased numbers of external assets (e.g., supportive family and school relationships) and internal assets (e.g., achievement motivation and coping skills) are predictive of better school achievement and other quality of life outcomes for youth (e.g., Scales, 1999).

According to Mbathia (2005), education supplies people with specific skills and therefore it enables them to perform their tasks effectively. The better the performance of an individual is the more competitive and rewarded the individual will be. Many factors have impact on academic performance, as Owiti (2001), described, attitude leads to achievement and abilities are needed for successful performance. Bandura (1997), confirmed that intellectual capability and motivation are significant factors on academic performance.

Considering the study conducted by researchers both positive and negative indicators of mental health have been shown to have additive value in predicting students' attendance and academic achievement over time (Suldo, Thalji and Ferron, 2011).

A mental health model introduced by Clark and Watson (1991), show that depression, anxiety, and stress are the main contributing factors to the mental health and these factors are overlapping between one another (Clark, 1989). The development of mental health model has helped researchers strengthen and deepen the understanding of the symptoms and the relationship between stress, depression, and anxiety among individuals. The details of the model are given below:

Depression is a common disorder, but it is a serious and complex disease that affects nearly 121 million people around the world (Malaysian Mental Health Association, 2008). According to Sarason and Sarason (2002), depression may involve feelings of sadness (Wick-Nelson and Israel, 2003), weak, frustrated, desperate, helpless

and hopeless experienced by individual. Some of the symptoms experienced by depressed individuals are low level of mood and dissatisfied with anything happens around them. Most students who are depressed do not perform well in academic achievement because the students are not motivated and not daring to do anything to realize their aims. Furthermore, those depressed students tend to think negatively and do not attempt to achieve their target. As a result of these harmful behaviours, students continue to be frustrated and giving up, and thereby causing low academic achievement. Results from previous studies reveal that, depression is a common problem among adolescents (Steinberg, 1999). In addition, according to Petersen and et al., (1993), about 7% to 33% of adolescents are facing depression problem depending on the conditions encountered. Within the context of Malaysia, Shamsuddin (2013), discovered that, students aged between 20 and 24 are most affected by depression. The senior students (age 20 to 24), obtained higher depression scores compared with their junior students (age 18 to 19). The reason why senior students experienced higher level of depression was due to increased workload or assignments during final year of studies. Similarly, a study conducted by Sherina et al., (2003), also found out that 41.9 % of students in a public institution in Malaysia were faced with depression problem. Depression among adolescents should not be underestimated because it will cause a serious problem if left without early treatment. Student who have depression problem due to various causes might gain lower learning outcomes. In other words, student's academic performance is jeopardised by depression (Zaid et al., 2007).

According to Fine and Carlson (1994), again the common symptoms of depression among students in university are difficulty in concentrating, lack of interest and motivation and poor attendance. These symptoms actually justify why a depressed students does not achieve academic performance. Based on the findings above, it can be concluded that the depression will negatively affect the performance of students in their academics.

Anxiety is a physiological disorder associated with significant distress and impairment of function. It is the relationship between thoughts and feelings that causes the mental impression of inability to control and predict undesirable events in life (Wilson et al., 1996). In addition, anxiety can be defined as fears with vague and

impulses unclearly know. Effects of anxiety symptoms perceived as a threat that affects health physical like high heartbeat, sweating on both sides of the palms, insomnia and behavioural changes.

There are two kinds of anxiety that have been identified by Spielberger et al., (1994), such as trait anxiety and state anxiety. Trait anxiety is personality differences which is relatively stable especially when an individual does not see any harmful effect from the threats. While the state anxiety appears due to the perception of a person that presumes a threat might negatively affect to him. This is to say that, state anxiety of a person will manifest when he perceives an event or object as a threat to him. In general, state anxiety is subjective in nature and it is characterized by the feelings of anxiety and agitation consciously followed by presence of a sense of doubt raised by the nervous system. State anxiety will change over time when a person receives a potentially harmful stimuli and imagination about the existence of stimulus. In most cases, a person will show different degree of reactions and responses according to the perceived level of threat of that person.

A number of studies have shown that there is a relationship between anxiety and academic achievement among university students. Specifically, students suffer from anxiety disorder often do not perform well in lives and academics. Results from the study conducted by Sieber, O'Neil and Tobias (1977), regarding the relationship between anxiety and student's academic achievement concluded that anxiety affect academic achievement for students. Sieber, O'Neil and Tobias (1977), provided some explanations for their findings as follows:

1. Low ability in observation, learning, problem solving, and remembering influenced academic achievement due to anxiety problem.
2. Lower performance to complete the complex task and the students will contract anxiety if they cannot accomplish the given task.
3. The confusion and difficulty in completing tasks is the major factor that increases the anxiety level.
4. High level of anxiety cause lower academic achievement. In short, the higher the level of anxiety, the lower the academic performance of the students.

There are many studies showed that the academic achievement of student in schools, colleges and universities are affected by anxiety disorder. For instance, Shamsuddin et al., (2013) have proven that there is a significance negative correlation between anxiety and the achievement of grades obtained by students. This finding is on a par with what has been discovered by Sieber, O'Neil and Tobias (1977), who stated that low academic achievement is attributed to high level of anxiety which undermines the cognitive functions of students.

One of the factors that have an impact on student's performance is the perception and experience related to an academic event or object that induces anxiety. As an example, according to Vogel and Collins (2006), if a student has a negative experience with taking a mathematics test (e.g., does not pass the test), he tends to develop higher levels of anxiety whenever he sit for a mathematics test and, in turn, this bad experience which induces high level of anxiety will lead to lower performance. Conversely, if the perception or experience of an individual towards an event is positive, then it will induce lower levels of anxiety, and thereby leading to higher performance. Therefore, it is important to consider the factors, such as motives, tendency, cognitive assessment in task, and previous experience when analyzing anxiety and its relationship with performance.

In conclusion, the effect of anxiety is equivocal. If the level of anxiety is too high, it might negatively influence the academic performance. On the contrary, low level of anxiety might serve as a motivator to encourage student to put more effort in learning, and in turn, leading to a higher academic achievement.

Stress is a common problem that is often experienced by everyone in daily life. According to Sidi and Shaharom (2002), stress is a part of human life since time without realizing it, therefore, the phenomenon is something unavoidable and it depends on the person to manage or handle stress well. Each person has a different perception about the stress and different ways for handling the stress. According to Fontana (1989); the existence of stress due to the inability of a person to fulfill the demand required and over self-demanding. From a positive perspective, stress may bring about a favorable impact as stress can be perceived as a beneficial agent that motivates and encourages an individual to move forward.

There are several factors that can affect the stress and it is closely associated with the living style, personal characters, urbanization and modernization of culture shock. Stress also often exits among students especially in the aspects of academics (Shamsuddin et al., 2013), workload (Tangade et al., 2011), environment and financial resources (Andrew and Wilding, 2004). Therefore, the stress is one of the contributing factors to mental health, and then it must be resolved by using an appropriated method to enhance the well-being living of the student.

A large number of research show that stress is significantly correlated with academic achievement. High level of stress has a negative impact on learning. Therefore, it is important to help students to cope with stress and guide them to the right path. It is noteworthy that lecturers and parents have to work hand in hand to battle the issue; otherwise the stressed students will be feeling hopeless, isolated, and left out of society.

Mental health can be conceptualized as an emotional well-being that affected by the elements of depression, anxiety, and stress. A number of existing research findings has revealed that there is a relationship between mental health, such as depression, anxiety, and stress, and academic achievement. Sources of stress among students can be categorized into five components, namely the academic, personal (Interpersonal), environment, financial issues and time management. This classification of stress source is supported by Yusof and Azman (2013), who conducted a study to find out the source of stress among students in higher learning institutions. The researchers discovered that the students were stressed due to academic, financial and time management issues. Stress will reach critical level when students fail to manage those problems (Gopal et al., 2010).Time management for examination and the demands to get higher grades are likely to cause high stress among students. The development of stress in a student will prevent to achieve the learning goals. Therefore, it is essential to motivate and encourage students to overcome stress using appropriate approach.

A huge amount of research has attempted to identify important factors to student success by assessing the relations among many psychological and academic variables. Few studies have used different methods to propose and test models that can be used to understand the relations among factors that influence student academic success

(Momanyi, Ogoma and Misigo, 2010; Peterson, Milstein, Chen and Nakazawa 2011; Schunk 1991).

Based on the findings above, it can be concluded that mental health problem will affect the academic achievement of students and it will go from bad to worse if the students do not receive any treatment. The negative effect of mental health is not only on the academic side, but also on their daily life. Greater awareness on mental health should be promoted and early diagnosis can prevent mental health problem. All parties should be promoted and early diagnosis can prevent mental health problem.

Self-efficiency has an important role in person's facing with life problems and can be an effective factor in educational situations as a personal variant (Schwarzer, 1995, quoted by Capara et al, 2006). The details are given below:

2.3.3 Self-Efficacy and Academic Achievement

Bandura and Schunk (1981); Bandura (1986); Hackett and Betz (1989), came to the conclusion that self-efficacy influences the choice and commitment in a task, the energy spent in performing it, and the level of the performance. One important variable for the prediction of individual behavior is self-efficacy. Self-efficacy is defined as the levels of confidence individuals have in their ability to execute certain courses of action or achieve specific outcomes (Bandura, 1977, 1982, 1997). The strength of people's firm belief in their own effectiveness is likely to affect whether they will even try to cope with given situation. At this initial level, perceived self-efficacy influences choices of behavioural actions.

Normative goal theory suggests that self-efficacy beliefs have a moderating effect on the performance goals. It is worth posing a question on the essence of self-efficacy and how it is related to the students' academic performance. According to Bandura (1997), an essential factor in a human activity is the belief in personal efficacy. As Bandura describes self-efficacy, it is argued that beliefs influence human functioning by motivational, decision-making, and affective processes. Based on Bandura (1977), the more an individual believes in his self-efficacy, the more willing he is, which in itself makes it possible for the individual to be fully accomplished. As described by Bandura (1997), self-efficacy beliefs are different with different individuals; they vary under different circumstances, undergo transformations with time, and increase the academic

achievements as determined by the factors: Mastery experience, vicarious experience, verbal persuasion, physiological and emotional states.

An individual's sense of self-efficacy is determined by a multitude of personal, social, and environmental factors. Under the social-cognitive perspective of Bandura (1997), and Pajares (1996), these factors can be altered not only to influence the individual's level of self-efficacy, but also his future performance. According to Bandura (1986), there is a major difference in the way individuals feel and act between those with low self-efficacy and those with a high level of self-efficacy. Individuals suspicious of their own abilities tend to avoid challenges and difficult tasks. As Bandura described (1989), people who doubt their abilities tend not to get engaged in difficult tasks. As stated above, individuals with a high level of self-efficacy cope with challenging situations in a more mature way, while not considering these as a threat. Bandura (1999), showed that the stronger the belief in self-efficacy, the better the subsequent performance. Their results also indicated that causal attributions could influence achievements strivings; however, the effect is mediated almost entirely through changes in perceived self-efficacy (Weiner and Graham, 1999). Bandura (1997), points out that attitude and gender are influential to some extent for some people regardless of their mediating effects on self-efficacy beliefs. Locke and Latham (1990), defined that the more challenging the goals are, the more motivation they stimulate. A high level of motivation and willingness bring about higher academic accomplishments.

According to Mbathia (2005), good academic performance influences not only students' choices in major higher school but also their admission to college or university. Pajares (2000), showed that from the seventh grade onwards, girls are inclined to underestimate their capacities in science regardless of the fact that their performance is poorer that of the boys. Due to this tendency which continues in high school, fewer female students study science at college level.

According to Mento, Locke and Klein (1992), internal rewards for goal attainment, in other words the satisfaction you receive due to performing a successful task, can drive stronger influences on effort and achievement than external rewards such as grades or academic performance.

Gloudemans, René and Schalk (2013), demonstrated that possessing higher academic degrees had no significant relationship with higher self-efficacy; but that it affected mental health among nurses. In another study, Najafi and Fouladchang (2007), showed that there was a positive and significant correlation between self-efficacy and mental health.

A number of researches have been done for investigating and exploring the way self-efficacy influences different spheres; psychosocial functioning in children (Holden, Moncher, Schinke, and Barker, 1990), academic achievement and persistence (Multon, Brown, and Lent 1991), athletic performance (Moritz, Feltz, Fahrbach, and Mack, 2000), performance at work (Sadri and Robertson ,1993). The findings disclosed a significant impact of self-efficacy beliefs on the individual's performance and motivation. Individuals with high level of self-efficacy are inclined to perform activities in a successful way.

Collins (1982), demonstrated in a clear way the importance of self-efficacy beliefs and skill application on academic performance. The study showed that people may perform poorly on tasks not necessarily because they lack the ability to succeed, but because they lack belief in their capabilities.

Arabian (2004), showed that strong tendency towards self-efficacy would promote mental health among university students. The obtained results in this study showed that students with a higher level of self-efficacy tended to be more anxious, whereas those with weak self-efficacy were more depressed and timid, and demonstrated obsessive behaviours. Asgharnezhad (2004), as well have indicated that there is a significant relationship between students' self-efficacy and their academic achievements (Asqarnezhad, 2004).

Moreover, Eydiyan (2006), studied the relationship between students' compatibility, self-respect and their academic achievements and showed that they are meaningfully correlates with each other (Eidiyan, 2006); Seif and Dibaet (2008), also demonstrated that self-efficacy is the most powerful element for predicting educational performance and the aspects of cognitive perceptions' beliefs through self-efficacy mainly predict the educational performance of students in experiential sciences (Seif, and Mazrouqi, 2008). Similarly, Moradkhani (2008), investigated the effect of self-efficacy's

sense and academic degrees of beginner English teachers on language students' academic achievement and showed that teachers' degrees affects their abilities and teaching methods which may consequently influences student's academic success. However, there found no meaningful differences between the teachers' self-efficacy senses and their academic degrees. But there is a meaningful relation between the teachers' self-efficacy and the language students' academic achievement (Moradkhani, 2008).

Additionally, ZahraKar et al., (2010), studied the effect of learning skills of problem solution on self-efficacy. Their findings revealed that that the rate of students' self-efficacy who have been trained in learning solving problems skills are more than the student who haven't received them. Also the rate of students' self-efficacy benefits from an appropriate consistency during time (Zahrakar, Rezazade and Ahqar, 2010).

According to Abbasiyanfard et al., (2010), in the studying the relationship between self-efficacy and students' motivation for development have shown that self-efficacy correlates with their development motivation in four aspects of self-leadership, self-fertility, self - exciting and self-regulating. Abolghasemi and et al., (2012), in studying the role of social desirability, mental health and self-efficacy in predicting students' academic achievement have shown that approximately 12% of variance which related to academic achievement of intelligent students was explicated by social desirability, mental health and self-efficacy variables. Eskandarpoor Charmkharan (2007), additionally showed in his study students' self-concept significantly correlates with their academic achievements.

Tamaddoni et al., (2010), in their study revealed that the average grades of boys are more than girls. The Comparison of normalized scores for negligent acts of academic performances in all cases; are higher than previous norms. The result of Pearson's correlation about the relationship between variables showed that there is a negative and meaningful relationship among public self-efficacy, academic carelessness and academic achievement. In addition, Bakhtiyarpour et al.,(2009), who studied the relationship between control status, idealism, self-efficacy, exam stress and students' academic performance concluded that that there is a relation between the set of prediction's variable s and the set of central Correlation Coefficient 's variables with 66%. Also the result showed that just the exam stress, not academic performance, is predictable by idealism,

"innermost" control situation and self-efficacy. Besides, Qalaeee et al., (2012), in their study evaluated models of teachers' self-efficacy beliefs as an indicator of determining their job satisfaction and students' academic achievements. It was shown that there is a meaningful relation among teachers' self-efficacy beliefs, their job satisfaction and students' academic achievement.

Furthermore, Birami et al., (2011), in their study came to this conclusion that there is a positive and meaningful relationship among the subject of homework involvement, superficial learning strategy, in-depth learning strategy and academic achievement; also it was revealed that there is a positive and meaningful relation among the self-involvement subject, superficial learning, in- depth learning strategy and self-efficacy; however, it was shown that there is a negative relation between self-efficacy and avoidance of working.

Ryan and Stiller (2000), moreover, have shown that in their researches that there is a powerful interconnection among the innermost motivation, academic achievement and enjoying learning activities. The researches of Pajares (1996), Mimi (1996), Andrew and Viall (1998), Cassidy and Eachus (2000), Sommerfield and Watson (2000), also revealed that there is a relation between students' self-efficacy and their academic achievement (Pajrez, 1996 and Sommerfield, and Watson, 2000).

The stronger the self-efficacy, the more active the effort, and that results in better performance. This positive link between self-efficacy and performance is widely reported and much research has been conducted in a range of different settings (Panjares, 1996; Sadri and Robertson, 1993; Stajkovic and Luthans, 1998), although a number of conditions appear to influence the effect size. Thus, by giving appropriate skills and adequate incentives, self-efficacy and academic achievement can be increased.

2.4 CONCLUSION

The theoretical bases cited above helped the investigator to obtain a definite picture of mental health and self-efficacy as predictors of academic achievement of student. The review provides a total picture of the contemporary developments in the major areas selected for the study viz., mental health and self-efficacy and how they can be used for predicting the academic achievement.

The discussions show that there has been positive correlation between mental health, self-efficacy and academic achievement. Effective mental health promotion involves not only attending to the needs of those with mental health difficulties, but also promoting the general mental wellbeing of all staff and students, which will in itself bring significant benefits to the higher education institution. Improved general mental wellbeing will impact on institutional reputation, staff and student recruitment and retention, performance in general (Dooris, 2003), (Dooris, 1998), (Friedli, 2005), and on community relations. Therefore, attention should be given to the aforementioned issues because they are potentially affecting the personality and behavior of an individual.

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CHAPTER III

METHODOLOGY

3.1 INTRODUCTION

3.2 HYPOTHESES SET OF THE STUDY

3.3 OBJECTIVES OF THE STUDY

3.4 VARIABLES OF THE STUDY

3.5 METHODOLOGY

3.6 SAMPLE SELECTED FOR THE STUDY

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CHAPTER III
METHODOLOGY

3.1 INTRODUCTION

Methodology adopted for a research study is an important determinant of the quality and research of the study. Methodology helps to develop a scientific design for the conduct of the study, which includes the hypotheses set for the study, objectives to be achieved by the study which will help to accept or reject the hypotheses, specification of the variables to be used, how the variables can be measured, and how the interactions of the variables can be assessed. The validity and reliability of the finding obviously depend the precision with the variables are measured and used for designing the methods to be used for study. The decisions about the methods, again, depend upon the nature of the problem selected and the kind of data to be collected for identifying the relationships sought to be investigated.

Different methods are available for solving any problem in educational research. A careful selection of a most suitable method has to be made from the different and often equally effective methods available to social researchers. The present chapter deals with the method adopted for the study, including the details of the variables selected, the sample used for the study, tools used for measuring each variable and the statistical techniques used for analyzing data so as to draw dependable conclusions which will help the investigator to take decisions about the tenability of the hypotheses for the study. The details are given under various sub-heads.

3.2 HYPOTHESES OF THE STUDY

The major hypotheses of the study are given below:

1. There exists significant relationship between predictor variable, Mental Health and criterion variable Academic Achievement among student teachers in Kerala.
2. There exists significant correlation between each of the components of Mental Health and Academic Achievement among student teachers in Kerala.

3. There exists significant relationship between Self-Efficacy and Academic Achievement among student teachers in Kerala.

4. There exists significant difference in Mental Health with respect to:

   a. Gender

   b. University.

5. There exists significant difference in Self- Efficacy with respect to:

   a. Gender

   b. University.

6. There exists significant difference in Academic Achievement with respect to:

   a. Gender

   b. University.

7. There exists significant correlation between Mental Health and Academic Achievement when Partialling out the effect of Self-Efficacy among student teachers in Kerala.

8. There exists significant correlation between Self-Efficacy and Academic Achievement when Partialling out the effect of Mental Health among student teachers in Kerala.

9. There exists significant combined relationship between Self-Efficacy and Mental Health on Academic Achievement among student teachers in Kerala.

10. Each of the associate variables, Mental Health and Self-Efficacy is a significant predictor of Academic Achievement among student teachers in Kerala.

3.3 OBJECTIVES OF THE STUDY

The major objectives of the study are given below:

1. To find the relationship between Mental Health and Academic Achievement among student teachers of Kerala

2. To find the relationship between each of the components of Mental Health and Academic Achievement among student teachers of Kerala

3. To find the relationship between Self-Efficacy and Academic Achievement among student teachers of Kerala

4. To find whether there exists significant difference in each of the predictor variables Mental Health and Self-Efficacy with respect to:

   a. Gender

   b. University

5. To find whether there exists significant difference in the criterion variable Academic Achievement with respect to:

   a. Gender

   b. University

6. To find the correlation between Mental Health and Academic Achievement by Partialling out the effect of Self-Efficacy among student teachers in Kerala

7. To find the correlation between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among student teachers in Kerala

8. To find the combined relationship of predictor variables, Mental Health and Self-Efficacy on criterion variable Academic Achievement among student teachers in Kerala

9. To test the predictive efficiency of each of the associate variables to predict Academic Achievement among student teachers in Kerala

3.4 VARIABLES OF THE STUDY

The main focus of the study was to investigate predictor efficiency of Mental Health and Self-Efficacy to predict Academic Achievement of student teachers in Kerala. Thus, the study is designed the following variables:

1. Predictor Variables

   The predictor variables of the study are Mental Health and Self-Efficacy.

2. Criterion Variable

   The criterion variable of the study is Academic Achievement.

3.5 METHODOLOGY

Research methodology is a way to systematically solve the research problem. It is a science of studying how research is done systematically. Researchers not only need to know how to develop certain indices or tests, how to apply particular research techniques,

but they also need to know which of these methods or techniques, are relevant and which are not, and what would they mean and indicate and why. The 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 other will not.

3.5.1 Method Adopted for the Study

The systematic investigation for collecting data is highly essential to solve problems raised in the study. Hence, the method used for the present study is survey method. The study is descriptive and co-relational in nature.

3.6 SAMPLE SELECTED FOR THE STUDY

The study was conducted to find out the correlation between mental health and self-efficacy as predictors of academic achievement of student teachers in Kerala. The investigator decided to adopt normative survey method for the present study. Population in the present study was the student teachers in Kerala state of India. Since the population was large in size an optimum sample which fulfils the requirement of the population was selected by stratified random sampling.

The sample for the present investigation has been selected using stratified sampling method (Kothari, 1994), by giving due representation to Gender (male/female) and University (Kerala, Calicut, Mahatma Gandhi and Kannur Universities).

The sample for the study consisted of 314 students undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala; in such a manner that would be reprehensive of the general population of student teachers in Kerala state.

The final sample selected for the study by giving due representation to Gender (male/female) and University (Kerala, Calicut, Mahatma Gandhi and Kannur Universities). The details are given in table 3.1 and table 3.2 respectively.

Table 3.1
Distribution of the Sample Based on Gender

Sample	Sub-Sample	Frequency	Percent	Valid Percent	Cumulative Percent
	Female	265	51.6	84.4	84.4
Gender	Male	49	9.6	15.6	100.0
	Total	314	61.1	100.0	

The above table shows the break-up of samples taken for the study based on gender. The total number of the sample was 314. Out of 314 student teachers in Kerala, 49 (15.6%) were male and 265 (84.4%) were female.

Table 3.2
Distribution of the Sample Based on University

Sample	Sub-Sample	Frequency	Percent	Valid Percent	Cumulative Percent
	Kerala University	111	21.6	35.4	35.4
	Mahatma Gandhi University	67	13.0	21.3	56.7
University	Calicut University	110	21.4	35.0	91.7
	Kannur University	26	5.1	8.3	100.0
	Total	314	61.1	100.0	

The above table depicts the break-up of samples taken for the study based on locality. The total number of the sample was 314. Out of 314 the student teachers in Kerala, 111 (35.4%) were from Kerala University, 67 (21.3%) were from Mahatma Gandhi University, 110 (35.0% were from Calicut University and 26 (8.3%) of the students were from Kannur University. A list of University Departments and affiliated Colleges under the Universities is given as Appendix B.

3.7 TOOLS EMPLOYED FOR THE STUDY

For the conduct of a successful research study the selection and construction of tools of appropriate validity and reliability are importance. For the present investigation two different tools were used. The tools used for the study are:

1. Mental Health Status Scale (M.H.S. Scale)

Mental Health Status Scale (M.H.S. Scale)-(prepared and standardized by the investigator). The scale comprised of eight components, vis., i) Attitudes toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism factors.

2. General Self-Efficacy Scale (G.S.E. Scale)

General Self-Efficacy Scale (G.S.E. Scale)-(prepared and standardized by the investigator). The scale has been developed to assess a general sense of self-efficacy with the aim in mind to predict coping with daily hassles as well as adaption after experiencing all kind of stressful life events.

Note: The study used the total score of B.Ed. course to assess the academic achievement of the sample selected.

Details regarding the tools and procedure adopted for the preparation and standardization of the tools are given below:

3.7.1 Mental Health Status Scale (M.H.S. Scale)

The present study was in need of an appropriate tool to measure the mental health status of student teachers. Even though many mental health status scales are in use, no specialized standardized scale was available for assessment of mental health of student teachers in Kerala. Hence the investigator decided to construct and standardized a mental health status scale. The details of the construction of the mental health status scale are given below:

3.7.1.1 Planning

According to (Ross and Stanley, 1954), "Good test do not just happen not just happen nor are they the result of a few moments of high inspiration and exaltation. On the contrary, the process is calm, deliberate and time consuming".

Before constructing the tool the investigator consulted to the experts, teacher educators, psychologists, and other researchers working in the field of educational

psychology and formed a general consensus about the areas that are to be included in the tool.

3.7.1.2 Selection of the Components for the Scale

Mental health can be measured in variety of ways. For the purpose of construction of the scale, there was no prescribed content, so the investigator has taken certain situations as the content. The Selection was made based on the discussions made with the experts and the supervising teacher. The major components selected are : i) Attitudes toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism factors. The details are given bellow:

3.7.1.2.1 Attitude toward the Self

The mentally healthy 'attitude toward the self' is described by terms such as self-acceptance, self-confidence, or self-reliance. Self-acceptance implies that a person has learned to live with himself, accepting both the limitations and possibilities he may find in himself. Self-confidence, self-esteem, and self-respect have a more positive slant; they express the judgment that in balance the self is good, capable and strong. Self-reliance carries the connotation of self-confidence, and, in addition, of independence from others and of initiative from within. The content of the scale consists of traits, motives, feeling, interests, or value.

3.7.1.2.2 Positive Attitude toward Others

The normal individual feels that he is an accepted member of a social group, that he is liked by the members of that group, and that they, in turn, are liked by him. Ruesch Jurgen & Bateson, G. (1951), considered that the mentally ill, as persons who are deficient in some of the skills essential to full communication with others.

3.7.1.2.3 Self-Actualization

The subscale measures the individual's ability to utilize his potentialities, and his orientation toward the future. Further, as Maslow (1950) observes, self-actualizing people 'in general focused on problems outside themselves'; and they have 'feeling for mankind …' a genuine desire to help the human race'; they are capable of 'deeper and more profound interpersonal relations than any other adults'. They are strongly ethical, they have definite moral standards. The self-actualizing individual has the 'capacity to evoke

on empathetic, warm or compassionate response from others (Mayaman, 1955). Self-actualizing people seem to attract friends and others. According to Hall and Lindzey, (1985) self-actualization means the fullest, most complete differentiation and harmonious blending of all aspects of man's total personality.

3.7.1.2.4 Integration

Integration refers to the relatedness of all processes and attributes in an individual. Integration as a criterion for mental health is treated with emphasis on one of the following aspects: (1) a balance of psychic forces in the individual, (2) a unifying outlook on life, emphasizing cognitive aspects of integration, and (3) resistance to stress. Balance of psychic forces implies the nation of balance between ego and superego. It does not aim at eliminating or denying their demands. The unifying philosophy of life results in the individual's feelings that there is purpose and meaning to his life. The use of the term 'resistance to stress 'connotes behaviour under stress-resilience, anxiety, or frustration-tolerance, and the like leads to greater concreteness in specific criteria than does the use of the more general concept integration.

3.7.1.2.5 Autonomy

The term autonomy denotes a relation between individual and environment with regard to decision-making. Autonomy means a conscious discrimination by the individual of environmental deal with one or both of two aspects:

1. The nature of the decision-making process, emphasizing the regulation from within, in accordance with internalized standards.

2. The outcome of the decision-making process in term of independent actions. One's behaviour should not be determined by external exigency alone, but dictated also from within, based upon that inner organization of values, needs, beliefs, accomplishments, and still unrealized goals, which together comprise that individual's world view.

3.7.1.2.6 Perception of Reality

Perception of reality is called mentally healthy when what the individual sees corresponds to what is actually there. In the mental health literature, perception of reality is discussed invariably as social perception, meaning that the conditions under which perception occurs or the object of perception, or both, involve other human beings. Two

aspects of reality perception are suggested as criteria for mental health: perception free from need-distortion; and empathy or social sensitivity. A mentally healthy person will seek objective evidence, and accept it even if it goes against his wish; he will treat the inner life of other people as a matter worthy of his concern and attention.

3.7.1.2.7 Environmental Mastery

This subtest measure the individual's achievement in some significant areas of living: capacity for adaptation, and adjustment. The following aspects of environmental mastery are suggested as criteria for mental health: the ability to live; adequacy in love, work, and play; ability to relax after work, and enjoy recreation; ability to carry on essential biological functions of sleeping, excreting, and so on, without any sense of disturbance or discomfort; adequacy in interpersonal relations; efficiency in meeting situational requirements; capacity for adaptation and adjustment; efficiency in problem solving.

3.7.1.2.8 Optimism

'Optimism' is to be an important criterion in determining the mental health level of any person as revealed in the studies of Klein, Donald C. (1960), Pathak, A.B. (1972), and others.

It was found in Pathak's study that eighty four percent of the low achievers frequently expressed fear of failure in examination and lack of interest in studies, whereas the high achievers were more optimistic about academic future and they aspired to achieve high standards.

3.7.1.3 Preparation of the Scale

The items on the draft scale of mental health status were prepared on the basis of eight major factors selected for the scale were the mental health status related to, i) Attitudes toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism factors.

The eight factors were selected based on the discussions made with the supervising teacher, the experts in the field of education and psychology. 96 statements were prepared by the investigator and for each component 12 statements were selected. The draft form of Mental Health Status Scale is presented as Appendix C.

3.7.1.4 Blueprint of the Scale

The blue print of scale was prepared based on the various components of mental health status contents such as: i) Attitudes toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism related. In the initial blue print, the items of each section was twelve and later in the final blue print it was decreased to ten items for each section. The items were taken from each section of the scale and the total numbers of items were eighty.

3.7.1.5 Tryout of the Test

The draft scale was tried out on a sample of eighty student teachers selected from the Departments of Education and Colleges of Teacher Education under University of Kerala.

3.7.1.6 Item Analysis

Item analysis was done separately for the following eight components of mental health status. The discriminating power of each statement was find out by testing for significance between means of high and low groups of mental health status by using the formula in Garrett (2006) which is given below:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

The best discriminating items under each item of the eight components were selected for the final test. The details of item analysis for the study are given in table 3.3.

Table 3.3

The t-Value of Items in the Draft Scale of Mental Health Status

Section 1		Section 3		Section 5		Section 7	
Item No.	t-Value	Item No.	t-Value	Item No.	t-Value	Item No.	t-Value
1	3.43*	1	2.52*	1	4.08*	1	2.48*
2	1.50	2	3.56*	2	1.34	2	2.98*
3	3.43*	3	3.43*	3	3.35*	3	2.61*
4	3.24*	4	3.75*	4	4.45*	4	2.40*
5	3.24*	5	2.63*	5	2.97*	5	3.88*
6	1.98*	6	2.53*	6	4.31*	6	2.03*
7	2.56*	7	6.38*	7	3.52*	7	2.98*
8	2.54*	8	7.69*	8	3.55*	8	4.99*
9	1.81	9	1.24	9	0.31	9	1.78
10	3.24*	10	5.55*	10	3.71*	10	3.51*
11	2.22*	11	3.85*	11	2.34*	11	2.21*
12	3.41*	12	1.00	12	4.55*	12	1.37

Section 2		Section 4		Section 6		Section 8	
Item No.	t-Value	Item No.	t-Value	Item No.	t-Value	Item No.	t-Value
1	3.43*	1	2.78*	1	3.76*	1	4.10*
2	1.69	2	1.55	2	0.76	2	1.25
3	2.59*	3	3.97*	3	2.65*	3	4.65*
4	2.31*	4	5.23*	4	4.64*	4	5.28*
5	1.50	5	2.15*	5	1.24	5	3.48*
6	3.24*	6	1.44	6	2.93*	6	1.95
7	3.24*	7	4.88*	7	3.02*	7	3.68*
8	1,99*	8	3.49*	8	2.91*	8	4.53*
9	3.14*	9	3.87*	9	2.94*	9	4.10*
10	3.34*	10	3.64*	10	3.18*	10	3.65*
11	2.51*	11	5.27*	11	3.89*	11	3.32*
12	2.31*	12	4.08*	12	2.42*	12	4.65*

Note: The items with a t-value below 1.96 are removed for the final test.
*The items with a t-value above 1.96 are selected for the final test.

3.7.1.7 Preparation of the Final Scale

Items of with a t-value above 1.96 were selected. After considering the suggestions and corrections of the supervising teacher and experts the final scale was prepared. The final scale yields eight sections and each section contains to 10 statements. For each statement five alternatives A-Strongly Agree, B-Agree, C-Undecided, D-Disagree, and E-Strongly Disagree are provided. In each section equal numbers of positive and negative items were included. For a positive item the score is 5, 4, 3, 2, 1 for A, B, C, D, E and for negative item the score is reversed. Thus eighty items were selected for inclusion in the final Mental Health Status. A copy of the final scale is given as Appendix D.

The data sheet consists of items wherein the subject furnishes details like: name, age, gender, college or institutions and the total average of score obtained for B.Ed. course. The numbers of items are given under components of final mental health status in table 3.4.

Table 3.4

The Numbers of Items under Components of Final Mental Health Status Scale

Sl. No.	Components of the Mental Health Status Scale	Total Items
1	Attitudes toward the Self	10
2	Positive Attitude toward Others	10
3	Self-Actualization	10
4	Integration	10
5	Autonomy	10
6	Perception of Reality	10
7	Environmental Mastery	10
8	Optimism	10
	Total	**80**

3.7.1.8 Reliability of the Mental Health Status Scale (M.H.S. Scale)

The reliability of the scale was found by test and re-test method. The test was administered to eighty student teachers from two teacher education colleges in

Thiruvananthapuram district. The same scale was re-administered after twelve days to the same students and the two sets of score were correlated. The reliability coefficient obtained is 0.862 which shows that the scale is a reasonably reliable tool for assessing the mental health status of student teachers in Kerala.

3.7.1.9 Validity of the Mental Health Status Scale (M.H.S. Scale)

The principles allotted for developing the Mental Health Scale is the first level of proof of the validity. The external validity of the scale was ensured using teacher educators and experts. The rating of teacher educators was corrected correlated to the ratings given by the experts and the rank difference correlation was determined p = 0.71, which shows considerable overlap between the two ratings. Thus the external validity of the scale was established.

3.7.2 General Self-Efficacy Scale (G.S.E. Scale)

The present study was in need of an appropriate scale to measure the general sense of self-efficacy. The scale is refers to the general view of performance of one's coping abilities in a wide variety of situations and general view of person's belief in his ability to organize and execute the courses of action required to achieve specific goals such as academic achievement . Even though some general self-efficacy scales are in use, no specialized standardized scale was available for assessment of general sense of self-efficacy of student teachers in Kerala. Hence the investigator decided to construct and standardized a general self-efficacy scale. The details of the construction of the general self-efficacy scale are given below:

3.7.2.1 Planning

Present study, was in need of an appropriate scale to measure the general sense of self-efficacy. General self-efficacy scale is refers to the general view of performance of one's coping abilities in a wide variety of situations and general view of person's belief in his ability to organize and execute the courses of action required to achieve specific goals. However, before constructing the tool, the investigator consulted to the experts, teacher educators, psychologists, and other researchers working in the field of educational psychology and formed a general consensus about the areas that are to be included in the tool.

3.7.2.2 Preparation of the Scale

The items on the draft scale of general self-efficacy are prepared to measure, to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaption after all kind of stressful life events; to measure the general view of performance, standardized test was prepared. In order to measure of the self-efficacy within student teachers in Kerala it was constructed by the investigator and based on discussions made with the experts in the field of education and psychology. Fifty items were selected for the draft scale. The draft form of General Self-Efficacy Scale is presented as Appendix E.

3.7.2.3 Blueprint of the Scale

The blue print of scale was prepared based on the general sense of perceived self-efficacy. In the initial blue print, the total items in the draft scale were fifty items and later in the final blue print the items were decreased to total forty items.

3.7.2.4 Tryout of the Test

The draft scale was tried out on a sample of eighty student teachers selected from the departments of education and colleges of teacher education under University of Kerala.

3.7.2.5 Item Analysis

Item analysis was done separately for the following fifty items of general sense of perceived self-efficacy. The discriminating power of each statement was find out by testing for significance between means of high and low groups of general sense of self-efficacy by using the formula in Garrett (2006) which is given in page number 104 in the Chapter

The best discriminating items under general sense of perceived self-efficacy were selected for the final test. The details of item analysis are given in table 3.5.

Table 3.5

The t-Values of Items in the Draft Scale of General Self-Efficacy

Item No.	t-Value	Item No.	t-Value
1	4.20*	26	2.37*
2	2.74*	27	4.15*
3	2.74*	28	4.11*
4	1.17	29	2.37*
5	3.21*	30	2.66*
6	2.32*	31	1.29
7	4.38*	32	3.02*
8	1.96	33	2.66*
9	3.01*	34	2.37*
10	4.40*	35	1.40
11	2.57*	36	4.15*
12	2.34*	37	3.21*
13	2.86*	38	3.30*
14	3.81*	39	4.17*
15	1.73	40	1.57
16	4.26*	41	3.08*
17	4.90*	42	2.90*
18	3.41*	43	1.02
19	1.75	44	3.13*
20	3.84*	45	3.23*
21	4.18*	46	1.67
22	3.84*	47	2.99*
23	3.74*	48	3.83*
24	3.10*	49	2.52*
25	4.25*	50	1.45

Note: The items with a t-value below 1.96 are removed for the final test.
* The items with a t-value above 1.96 are selected for the final test.

3.7.2.6 Preparation of the Final Scale

Items of with a t-value above 1.96 were selected. After considering the suggestions and corrections of the supervising teacher and experts the final scale was prepared. The final scale yields forty items. For each item four alternatives (1 - Not at all true, 2 - Hardly True, 3 - Moderately True, 4- Exactly True) are provided. In each section equal numbers of positive and negative items were included.

The data sheet consists of items wherein the subject furnishes details like: name, age, gender, college or institutions and the total average obtained for B.Ed. course. A copy of the final scale is given as Appendix F.

3.7.2.7 Reliability of the General Self-Efficacy Scale (G.S.E. Scale)

The reliability of the scale was found by test and re-test method. The test was administered to eighty student teachers in Kerala from two teacher education colleges in Thiruvananthapuram district. The same scale was re-administered after twelve days to the same students and the two sets of score were correlated. The reliability coefficient obtained is 0.815 which shows that the scale is a reasonably reliable tool for assessing the general self-efficacy of student teachers in Kerala.

3.7.2.8 Validity of the General Self-Efficacy Scale (G.S.E. Scale)

The principles allotted for developing the General Self-Efficacy Scale is the first level of proof of the validity. The list of experts is given as Appendix A. The external validity of the scale was ensured using teacher educators and experts. The rating of teacher educators was corrected correlated to the ratings given by the experts and the rank difference correlation was determined p= 0.72, which shows considerable overlap between the two ratings. Thus the external validity of the scale was established.

3.8 PROCEDURE FOR DATA COLLECTION

The tools were administrated to the student teachers in Kerala with a prior permission of the head of Departments of Education and the Principals of Teacher Training Colleges and institutions under Kerala, Calicut, Mahatma Gandhi and Kannur Universities in Kerala state districts. Even though instructions were printed on each test, the investigator with co-operation of teachers, very clearly explained the way of marking responses in each test.

The response sheets were scored, following the instructions for scoring. The relevant data thus obtained from the subjects were consolidated in the following manner: Each subject was given an identification number and variables were entered on a single line in coding sheet. Finally the information of the data sheets entered to the computer for statistical analysis.

3.9 STATISTICAL TECHNIQUES USED

The nature of the objectives of the study and the specific hypotheses indicated the statistical to be used for analyzing the data. The following are the major statistical techniques used in the study:

3.9.1 Preliminary Analysis

The mean, Median, Mode, Standard Deviation, Skeweness and Kurtosis were used for preliminary analysis of data. The details are presented in the Chapter IV.

3.9.2 The t-Test

The t-test or test of significance for difference between means for large independent samples (Garrett, 1969) was used to compare the means obtained by any two groups of subject on any of the variables.

3.9.3 One-way Analysis of Variance (ANOVA)

The one-way ANOVA is an effective way to determine whether the means of more than two samples are too different to attribute the sampling error. In one way analysis of variance, the relationship between one independent and one dependent variable is examined.

3.9.4 Scheffe's Post Hoc Test (Multiple Comparisons)

The Scheffe's procedure comprises all possible contrasts not only paired comparisons. Its advantage is that it covers a broad range of complex tests including post-hoc relationships among many groups. Multiple comparisons are procedures of comparing many group means simultaneously.

3.9.5 Pearson Product-Moment Coefficient of Correlation

A coefficient of correlation is a single number that tells us to what extent two things are related, or, in other words, to what extent variation in the one go with the variation in the other. Here, correlation analysis was done in all variables under the study the coefficient of correlation thus obtained were tested for significance.

This study makes use of the Pearson product-moment coefficient of correlation. The product-moment coefficient of correlation between any two variables can be described in a general way as high, marked or substantial and low or negligible (Garrett, 1969). Garrett presents the following classifications for interpreting the various values of r's, which is accepted for the study:

'r' from 0.00 to $\pm$ 0.20 : Negligible

'r' from $\pm$ 0.20 to $\pm$ 0.40 : Low

'r' from $\pm$ 0.40 to $\pm$ 0.60 : Moderate

'r' from $\pm$ 0.60 to $\pm$ 0.80 : Substantial

'r' from $\pm$ 0.80 to $\pm$ 1.00 : High or very high

3.9.6 Partial Correlation Coefficient

Partial correlation is the measure of association between two variables, while controlling or adjusting the effect of one or more additional variables. Partial correlations can be used in many cases that assess for relationship, like whether or not the sale value of a particular commodity is related to the expenditure on advertising when the effect of price is controlled.

3.9.7 Multiple Correlations

Multiple correlations are a statistical technique that predicts values of one variable on the basis of two or more other variables.

3.9.8 Regression Analysis

Multiple regression analysis is a method for studying the effect and magnitude of the effects, of more than one independent variable or one dependent variable (Kerlinger, 1973). The details of above discussion are presented in Chapter IV.

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CHAPTER IV

ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

4.2 HYPOTHESES

4.3 OBJECTIVES

4.4 SECTION 1: PRELIMINARY ANALYSIS

4.5 SECTION 2: T-TEST AND ANOVA

4.6 SECTION 3: CORRELATION ANALYSIS

4.7 SECTION 4: REGRESSION ANALYSIS

  REFERENCES

CHAPTER IV
ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

Data Analysis is an important step and heart of a research work. After collection of data with the help of relevant tools and techniques, the next logical step, is to analysis and interpret data with a view to arriving at empirical solution to the problem. Appropriate interpretation of data using adequate statistical techniques is essential for a research work. Statistical analysis helps to describe the data meaningfully and to present the complex data in a simple manner.

The data analysis for the present research was done quantitatively with the help of both descriptive statistics and inferential statistics. The descriptive statistical techniques like: Mean, Median, Mode, Standard Deviation, Skewness, and Kurtosis and for the inferential statistics analysis techniques such as: t-Test, One-way Analysis of Variance (ANOVA), Scheffe's Post Hoc Test (Multiple Comparisons), Pearson Product-Moment Coefficient of Correlation, Partial Correlation Coefficient, Multiple Correlations and Regression Analysis were used during data analysis. This chapter includes hypotheses, objectives and the analysed results are interpreted and discussed in the chapter. The details of analysis are given under the following heads:

4.2 HYPOTHESES

1. There exists significant relationship between predictor variable, Mental Health and criterion variable Academic Achievement among student teachers in Kerala.
2. There exists significant correlation between each of the components of Mental Health and Academic Achievement among student teachers in Kerala.
3. There exists significant relationship between Self-Efficacy and Academic Achievement among student teachers in Kerala.
4. There exists significant difference in Mental Health with respect to:

a. Gender

b. University.

5. There exists significant difference in Self- Efficacy with respect to:

a. Gender

b. University.

6. There exists significant difference in Academic Achievement with respect to:

a. Gender

b. University.

7. There exists significant correlation between Mental Health and Academic Achievement when Partialling out the effect of Self-Efficacy among student teachers in Kerala.

8. There exists significant correlation between Self-Efficacy and Academic Achievement when Partialling out the effect of Mental Health among student teachers in Kerala.

9. There exists significant combined relationship between Self-Efficacy and Mental Health on Academic Achievement among student teachers in Kerala.

10. Each of the associate variables, Mental Health and Self-Efficacy is a significant predictor of Academic Achievement among student teachers in Kerala.

4.3 OBJECTIVES

1. To find the relationship between Mental Health and Academic Achievement among student teachers of Kerala

2. To find the relationship between each of the components of Mental Health and Academic Achievement among student teachers of Kerala

3. To find the relationship between Self-Efficacy and Academic Achievement among student teachers of Kerala

4. To find whether there exists significant difference in each of the predictor variables Mental Health and Self-Efficacy with respect to:

a. Gender

b. University

5. To find whether there exists significant difference in the criterion variable Academic Achievement with respect to:

a. Gender

b. University

6. To find the correlation between Mental Health and Academic Achievement by Partialling out the effect of Self-Efficacy among student teachers in Kerala

7. To find the correlation between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among student teachers in Kerala

8. To find the combined relationship of predictor variables, Mental Health and Self-Efficacy on criterion variable Academic Achievement among student teachers in Kerala

9. To test the predictive efficiency of each of the associate variables to predict Academic Achievement among student teachers in Kerala

The analysis of the data and results obtained for the present investigation are interpreted and discussed in this chapter under following heads in various sections such as:

Section 1: Preliminary Analysis

Section 2: t-Test and ANOVA

Section 3: Correlation Analysis

Section 4: Regression Analysis

4.4 SECTION 1: PRELIMINARY ANALYSIS

In this section, the Mean, Standard Deviation , Mode, Skeweness and Kurtosis of Components of Mental Health Status, Total Mental Health Status, Self-Efficacy and Academic Achievement variables for total sample (N= 314), are calculated and presented in the bellow:

4.4.1 Preliminary Analysis of Data on Total Mental Health, Self-Efficacy and Academic Achievement

The preliminary analysis of data for the Mental Health, Self-Efficacy and Academic Achievement among student teachers in Kerala were collected and analysed. The details are given in table 4.1.

Table 4.1

Important Statistical Constants of Criterion and Predictor Variables

SI. No.	Variables	Mean	Median	Mode	SD	Skewness	Kurtosis
1	Mental Health	274.75	275.00	306	33.528	-.543	2.037
2	Self–Efficacy	113.00	113.00	112	13.544	-.180	0.107
3	Academic Achievement	732.61	736.00	750	87.021	0.281	-.029

Results of the table revealed the measures of central tendencies of each dependent variable and independent variable. For the independent variable Mental Health, measures of central tendencies mean and median are almost equal mode was slightly higher. The extent of Skewness is -.543 and measures of Kurtosis is 2.037. The curve is negatively skewed and leptokurtic. From the value and the data it is inferred that the distribution approaches not in the normal form.

For the independent variable Self-Efficacy measures of central tendencies mean and median are equal, mode was slightly lesser. The extent of Skewness is -.180 and shows that it is negatively Skewed and Kurtosis is 0.104 slightly leptokurtic and on the whole the approaches not in the normal form.

Measures of central tendencies mean and median are almost equal and mode was slightly high for the dependent variable Academic Achievement. The extent of the Skewness is 0.281 and measures of kurtosis is -.029 that is the curve negligible was positively skewed and slightly leptokurtic thus on the whole the approaches not in the normal form.

Even though the above given dependent and independent variable measures should slightly variations, it was negligible because of the following reasons. The Skewness of the distribution usually does not have a sizable effect on the F-test (Lindman, 1974). Also if sample size is fairly large, then deviations from normality do not make much difference at all because of the central limit theorem. According to which

the sample distribution of the mean approximate the normal distribution, regardless of the variable in the population (Lindman, 1974).

4.5 SECTION 2: The t-Test and ANOVA

In this section, the two sub-samples, viz., Gender and University (N = 314), were compared for the components of Mental Health, Self-Efficacy and Academic Achievement variables. These are analysed, and discussed below under two sub-heads such as:

1. Comparison of the Variables based on Gender
2. Comparison of the Variables based on University

The details are given below:

4.5.1 Comparison of the Variables based on Gender

The comparison of various components of Mental Health Status, total Mental Health, Self-Efficacy and Academic Achievement with respect to Gender were made using t-test for the total sample. The details are given under appropriate heads.

4.5.1.1 Data and Result of t-Test for the Various Components of Mental Health Status among Student Teachers of Kerala with Respect to Gender

Comparison of the Various Components of Mental Health Status such as: i) Attitude toward the Self, ii) Positive attitude toward Others, iii) Self-Actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental Mastery and viii) Optimism with respect to Gender was made. The data based on components of Mental Health Status with respect to the Male and Female student teachers in Kerala were collected and analysed. The details are given in tables 4.2 to 4.9.

4.5.1.1.1 Data and Result of t-Test of Attitude toward the Self with Respect to Gender among Student Teachers in Kerala

The data regarding the Attitude toward the Self with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.2.

Table 4.2

Data and Result of t-Test of Attitude toward the Self among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Attitude toward the Self	Female	265	31.97	5.409	1.703	0.092
	Male	49	30.86	3.937		

From table 4.2, it is found that, the 't' value for Attitude toward the Self is 1.703 which is less than table value even at 0.05 level of significance (t = 1.96). This shows that, there is no significant difference in Attitude toward the Self with respect to Gender among the student teachers in Kerala.

4.5.1.1.2 Data and Result of t-Test of Positive Attitude toward Others with Respect to Gender among Student Teachers in Kerala

The data regarding the Positive Attitude toward Others with respect to the Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.3.

Table 4.3

Data and Result of t-Test of Positive Attitude toward Others among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Positive Attitude toward Others	Female	265	35.66	6.496	0.641	0.523
	Male	49	35.12	5.167		

From table 4.3 , it is found that, the 't' value for Positive Attitude toward Others is 0.641 which is less than table value even at 0.05 level of significance (t = 1.96). This shows that, there is no significant difference in Positive Attitude toward Others with respect to Gender among the student teachers in Kerala.

4.5.1.1.3 Data and Result of t-Test of Self-Actualization with Respect to Gender among Student Teachers in Kerala

The data regarding the Self-Actualization with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.4.

Table 4.4

Data and Result of t-Test of Self-Actualization among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Self-Actualization	Female	265	33.48	5.783	1.704	0.093
	Male	49	35.22	6.725		

From table 4.4 , it is found that, the 't' value for Self-Actualization is 1.704 which is less than table value even at 0.05 level of significance (t = 1.96). This shows that, there is no significant difference in Self-Actualization with respect to Gender among the student teachers in Kerala.

4.5.1.1.4 Data and Result of t-Test of Integration with Respect to Gender among Student Teachers in Kerala

The data regarding the Integration with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.5.

Table 4.5

Data and Result of t-Test of Integration among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
	Female	265	36.75	6.767		
Integration	Male	49	36.86	9.090	0.081	0.936

From table 4.5, it is found that, the 't' value for Integration is 0.081 which is less than table value even at 0.05 level of significance (t =1.96). This shows that, there is no significant difference in Integration with respect to Gender among the student teachers in Kerala.

4.5.1.1.5 Data and Result of t-Test of Autonomy with Respect to Gender among Student Teachers in Kerala

The data regarding the Autonomy with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.6.

Table 4.6

Data and Result of t-Test of Autonomy among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
	Female	265	32.98	5.238		
Autonomy	Male	49	34.12	7.393	1.030	0.307

From table 4.6, it is found that, the 't' value for Autonomy is 1.030 which is less than table value even at 0.05 level of significance (t =1.96). This shows that, there is no significant difference in Autonomy with respect to Gender among the student teachers in Kerala.

4.5.1.1.6 Data and Result of t-Test of Perception of Reality with Respect to Gender among Student Teachers in Kerala

The data regarding the Perception of Reality with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.7.

Table 4.7

Data and Result of t-Test of Perception of Reality among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Perception of Reality	Female	265	33.70	6.484	0.360	0.720
	Male	49	34.10	7.258		

From table 4.7 , it is found that, the 't' value for Perception of Reality is 0.360 which is less than table value even at 0.05 level of significance (t=1.96). This shows that, there is no significant difference in Perception of Reality with respect to Gender among the student teachers in Kerala.

4.5.1.1.7 Data and Result of t-Test of Environmental Mastery with Respect to Gender among Student Teachers in Kerala

The data regarding Environmental Mastery with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.8.

Table 4.8

Data and Result of t-Test of Environmental Mastery among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Environmental Mastery	Female	265	35.69	5.695		
	Male	49	35.53	8.091	0.129	0.898

From table 4.8, it is found that, the 't' value for Environmental Mastery is 0.129 which is less than table value even at 0.05 level of significance (t=1.96). This shows that, there is no significant difference in Environmental Mastery with respect to Gender among the student teachers in Kerala.

4.5.1.1.8 Data and Result of t-Test of Optimism with Respect to Gender among Student Teachers in Kerala

The data regarding the Optimism with respect to Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.9.

Table 4.9

Data and Result of t-Test of Optimism among Student Teachers in Kerala with Respect to Gender

Component of Mental Health Status	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Optimism	Female	265	34.02	5.931	1.318	0.193
	Male	49	35.63	8.205		

From table 4.9 , it is found that, the 't' value for Optimism is 1.318 which is less than table value even at 0.05 level of significance (t =1.96). This shows that, there is no

significant difference in Optimism with respect to Gender among the student teachers in Kerala.

The results indicated that, the components such as: Attitude towards Self, Positive Attitude toward Others, Self-Actualization, Integration, Autonomy and Perception of Reality, Environmental Mastery and Optimism of student teachers in Kerala are independent of Gender.

4.5.1.2 Comparison of the Total Mental Health Status, Self-Efficacy and Academic Achievement among Student Teachers in Kerala with Respect to Gender

Comparison of the data based on total Mental Health Status, Self-Efficacy and Academic Achievement with respect to Male and Female student teachers in Kerala were made. The details are given under various sub-heads.

4.5.1.2.1 Data and Result of t-Test of Total Mental Health Status with Respect to Gender among Student Teachers in Kerala

The data regarding the total Mental Health Status of Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.10.

Table 4.10

Data and Result of t-Test of Total Mental Health Status among Student Teachers in Kerala with Respect to Gender

Predictor Variable	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Mental Health	Female	265	274.25	31.704	0.504	0.616
	Male	49	277.45	42.345		

From table 4.10, it is found that, the 't' value for Mental Health is 0.504 which is less than table value even at 0.05 level of significance (t = 1.96). This shows that, there is no significance in Mental Health with respect to Gender among the student teachers in Kerala. Based on this, it is seen that, there is no significant difference in Mental Health with respect to Gender among the student teachers in Kerala.

4.5.1.2.2 Data and Result of t-Test of Self-Efficacy with Respect to Gender among Student Teachers in Kerala

The data regarding the Self-Efficacy of Male and Female student teachers in Kerala were made. The details are given in table 4.11.

Table 4.11

 Data and Result of t-Test of Self-Efficacy among Student Teachers in Kerala with Respect to Gender

Predictor Variable	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Self-Efficacy	Female	265	112.68	13.814	0.078	0.285
	Male	49	114.73	11.956		

From table 4.11 , it is found that, the 't' value for the Self-Efficacy is 0.078 which is less than table value even at 0.05 level of significance (t=1.96). This shows that, there is no significant difference in Self-Efficacy with respect to Gender among the student teachers in Kerala.

4.5.1.2.3 Data and Result of t-Test of Academic Achievement with Respect to Gender among Student Teachers in Kerala

The data regarding the Academic Achievement of Male and Female student teachers in Kerala were collected and analysed. The details are given in table 4.12.

Table 4.12

 Data and Result of t-Test of Academic Achievement among Student Teachers in Kerala with Respect to Gender

Criterion Variable	Gender	N	Mean	SD	t-Test for Equality of Means	
					t	p
Academic Achievement	Female	265	733.71	87.736	0.533	0.596
	Male	49	726.71	83.736		

From table 4.12 , it is found that, the 't' value for Academic Achievement is 0.533 which is less than table value even at 0.05 level of significance (t =1.96). This shows that,

there is no significant difference in Academic Achievement with respect to Gender among the student teachers in Kerala.

The results indicated that, the Mental Health, Self-Efficacy and Academic Achievement of student teachers in Kerala are independent of Gender.

4.5.2 Comparison of the Variables based on University

The Comparison of various components of Mental Health Status, total Mental Health Self-Efficacy and Academic Achievement among the student teachers in Kerala based on University were made using ANOVA for the total sample. The details are given under appropriate heads.

4.5.2.1 Data and Result of ANOVA for the Various Components of Mental Health Status among Student Teachers of Kerala with Respect to University

Comparison of the Various Components of Mental Health Status such as: i) Attitude toward the Self, ii) Positive attitude toward Others, iii) Self-Actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental Mastery and viii) Optimism with respect to University was made. The data based on components of Mental Health Status with respect to the University among student teachers in Kerala were made. The details are given in tables 4.13 to 4.23.

4.5.2.1.1 Data and Result of ANOVA for Attitude toward the Self with Respect to University among Student Teachers in Kerala

The data regarding the Attitude toward the Self with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.13.

Table 4.13

Data and Result of ANOVA in Attitude toward the Self among Student Teachers in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA	
					F-value	p
Attitude toward the Self	Kerala (M.G.)	111	32.25	5.843		
		67	31.54	4.135		
	Calicut	110	31.72	4.994	0.631	0.595
	Kannur	26	30.85	5.883		
Total		**314**	**31.80**	**5.217**		

The table shows that, the calculated value of 'F' is 0.631. The 'p' value obtained is 0.595. Since the obtained 'F' value is less than, p=0.595, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Attitude towards Self with respect to University among the student teachers in Kerala.

4.5.2.1.2 Data and Result of ANOVA for Positive Attitude towards Others with Respect to University among Student Teachers in Kerala

The data regarding the Positive Attitude towards Others with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.14.

Table 4.14

Data and Result of ANOVA in Positive Attitude toward Others among Student Teachers in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA	
					F-value	p
Positive Attitude toward Others	Kerala	111	35.15	5.847		
	(M.G.)	67	35.27	7.277		
	Calicut	110	37.00	5.897	4.816	0.003
	Kannur	26	32.15	5.781		
Total		**314**	**35.58**	**6.303**		

The table shows that, the calculated value of 'F' is 4.816. The 'p' value obtained is 0.003. Since the obtained 'F' value is greater than, p=0.003, it is significant at 0.01 level of significance. This shows that, there is significant difference in Positive Attitude towards Others with respect to University among the student teachers in Kerala. It is found that, the Mean value is highest for Calicut University (M=37.00), and is lowest for Kannur University (M=32.58). This shows that, student teachers of Calicut University are superior to others in Positive Attitude towards Others.

4.5.2.1.2.1 Data and Result of Scheffe's Post Hoc Test on Positive Attitude toward Others among Student Teachers in Kerala with Respect to University

Scheffe's Post Hoc test on Positive Attitude toward Others with respect to University was applied to find the significant difference among the different pairs of groups and the details are given in table 4.15.

Table 4.15

The Post Hoc Tests (Multiple Comparisons) on Positive Attitude toward Others among Student Teachers in Kerala with Respect to University

SI. No.	Pairs			Mean Difference (I-J)	P
1	Kerala University	vs.	(M.G.) University	0.116	0.999
2	Kerala University	vs.	Calicut University	1.847	0.121
3	Kerala University	vs.	Kannur University	2.999	0.119
4	(M.G.) University	vs.	Calicut University	1.731	0273
5	(M.G.) University	vs.	Kannur University	3.115	0.132
6	Calicut University	vs.	Kannur University	4.846[*]	0.002

[*]The mean difference is significance at the 0.01 level.

From table 4.15, it is found that, comparing the mean scores of students, it is seen that there is a significant difference between the student teachers in Calicut and Kannur Universities (F=4.846), with respect to Attitude towards Others, since 'p' is 0.002, which is significant at 0.01 level of significance. While there is no significant difference in Positive Attitude towards Others between student teachers in Kerala University and Mahatma Gandhi University (F=0.116), Kerala and Calicut Universities (F=1.847), Mahatma and Kannur Universities (F=3.115), Mahatma Gandhi and Calicut Universities (F =1.731).

4.5.2.1.3 Data and Result of ANOVA for Self-Actualization with Respect to University among Student Teachers in Kerala

The data regarding the Self-Actualization with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.16.

Table 4.16

Data and Result of ANOVA in Self-Actualization among Student Teacher in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA	
					F-value	p
Self-Actualization	Kerala (M.G.)	111	33.86	6.193		
		67	33.88	5.591		
	Calicut	110	33.75	5.322	0.175	0.914
	Kannur	26	32.96	8.340		
Total		**314**	**33.75**	**5.962**		

The table shows that, the calculated value of 'F' is 0.175. The 'p' value obtained is 0.914. Since the obtained 'F' value is less than, p=0.914, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Self-Actualization with respect to University among the student teachers in Kerala.

4.5.2.1.4 Data and Result of ANOVA for Integration with Respect to University among Student Teachers in Kerala

The data regarding the Integration with respect to University among student teachers in Kerala were made. The details are given in table 4.17.

Table 4.17

Data and Result of ANOVA in Integration among Student Teachers in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA	
					F-value	p
Integration	Kerala	111	33.86	6.193		
	M.G.	67	33.88	5.591		
	Calicut	110	33.75	5.322	1.669	0.174
	Kannur	26	32.96	8.340		
Total		**314**	**33.75**	**5.962**		

The table shows that, the calculated value of 'F' is 1.669. The 'p' value obtained is 0.174. Since the obtained 'F' value is less than, p=0.174, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Integration with respect to University among the student teachers in Kerala.

4.5.2.1.5 Data and Result of ANOVA for Autonomy with Respect to University among Student Teachers in Kerala

The data regarding the Autonomy with respect to University among student teachers in Kerala were made. The details are given in table 4.18.

Table 4.18

Data and Result of ANOVA in Autonomy among Student Teachers in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA F-value	p
Autonomy	Kerala	111	33.32	4.854		
	(M.G.)	67	33.18	5.219		
	Calicut	110	33.24	6.536	0.310	0.818
	Kannur	26	32.15	5.815		
Total		314	33.16	5.630		

The table shows that, the calculated value of 'F' is 0.310. The 'p' value obtained is 0.818. Since the obtained 'F' value is less than, p=0.818, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Autonomy with respect to University among the student teachers in Kerala.

4.5.2.1.6 Data and Result of ANOVA for Perception of Reality with Respect to University among Student Teachers in Kerala

The data regarding the Perception of Reality with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.19.

Table 4.19

Data and Result of ANOVA in Perception of Reality among Student Teachers in Kerala with Respect to University

| Component of Mental Health Status | University | N | Mean | SD | ANOVA | |
					F-value	p
	Kerala	111	33.92	6.672		
Perception of	(M.G.)	67	33.66	5.956		
Reality	Calicut	110	34.24	6.947	1.345	0.260
	Kannur	26	31.38	6.204		
Total		**314**	**33.76**	**6.600**		

The table shows that, the calculated value of 'F' is 1.345. The 'p' value obtained is 0.260. Since the obtained 'F' value is less than, p=0.260, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Perception of Reality with respect to University among the student teachers in Kerala.

4.5.2.1.7 Data and Result of ANOVA for Environmental Mastery with Respect to University among Student Teachers in Kerala

The data regarding the Environmental Mastery with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.20.

Table 4.20

Data and Result of ANOVA in Environmental Mastery among Student Teachers in Kerala with Respect to University

| Component of Mental Health Status | University | N | Mean | SD | ANOVA | |
					F-value	p
Environmental Mastery	Kerala	111	35.30	5.860		
	(M.G.)	67	37.22	5.356		
	Calicut	110	35.74	6.845	3.462	0.017
	Kannur	26	32.88	4.676		
Total		**314**	**35.66**	**6.115**		

The table shows that, the calculated value of 'F' is 3.462. The 'p' value obtained is 0.017. Since the obtained 'F' value is greater than, p=0.017, which is significant at 0.01 level of significance. This shows that, there is significant difference in Environmental Mastery with respect to University among the student teachers in Kerala. It is found that, the Mean value is highest for Mahatma Gandhi University (M=37.22), and is lowest for Kannur University (M=32.88). This shows that, student teachers of Mahatma Gandhi University are superior to others in Environmental Mastery.

4.5.2.1.7.1 Data and Result of Scheffe's Post Hoc Test on Environmental Mastery with Respect to University among Student Teachers in Kerala

Scheffe's Post Hoc test on Environmental Mastery with respect to University was applied to find the significant difference among the different pairs of groups and the details are given in table 4.21.

Table 4.21

The Post Hoc Tests (Multiple Comparisons) on Total Environmental Mastery among Student Teachers in Kerala with Respect to University

SI. No.	Pairs			Mean Difference (I-J)	P
1	Kerala University	vs.	(M.G.) University	1.927	0.169
2	Kerala University	vs.	Calicut University	0.439	0.949
3	Kerala University	vs.	Kannur University	2.413	0.260
4	(M.G.) University	vs.	Calicut University	1.488	0.387
5	(M.G.) University	vs.	Kannur University	4.339[*]	0.011
6	Calicut University	vs.	Kannur University	2.852	0.136

*The mean difference is significance at the 0.01 level.

From table 4.21, it is found that, comparing the mean scores of the students, it is seen that there is a significant difference between student teachers of Mahatma Gandhi (M.G.), and Kannur Universities (F =4.339), with respect to Environmental Mastery, since 'p' is 0.011, which is significant at 0.01 level of significance. While there is no significant difference in the Environmental Mastery between student teachers of Kerala University with Mahatma Gandhi University (F =1.927), Kerala University with Calicut University (F=0.439), Kerala University with Kannur University (F =2.413), Mahatma Gandhi University with Calicut University (F =1.488), and Calicut University with Kannur University (F =2.852).

4.5.2.1.8 Data and Result of ANOVA for Optimism with Respect to University among Student Teachers in Kerala

The data regarding the Optimism with respect to University among student teachers in Kerala were made. The details are given in table 4.22.

Table 4.22

Data and Result of ANOVA in Optimism among Student Teachers in Kerala with Respect to University

Component of Mental Health Status	University	N	Mean	SD	ANOVA	
					F-value	p
Optimism	Kerala (M.G.)	111	33.96	6.259		
	(M.G.)	67	35.45	5.563		
	Calicut	110	34.13	6.960	1.160	0.325
	Kannur	26	33.12	5.847		
Total		**314**	**34.27**	**6.352**		

The table shows that, the calculated value of 'F' is 1.160. The 'p' value obtained is 0.325. Since the obtained 'F' value is less than, p=0.325, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Optimism with respect to University among the student teachers in Kerala.

The results indicated that, the components such as: Attitude towards Self, Self-Actualization, Integration, Autonomy and Perception of Reality of student teachers in Kerala are independent of University. It is also found that, the components such as: Positive Attitude towards Others and Environmental Mastery of student teachers is dependent to University.

4.5.2.2 Data and Result of ANOVA for Total Mental Health Status with Respect to University among Student Teachers in Kerala

The data regarding the Mental Health Status with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.23.

Table 4.23

Data and Result of ANOVA in Total Mental Health Status among Student Teachers in Kerala with Respect to University

Predictor Variable	University	N	Mean	SD	ANOVA	
					F-value	p
Mental Health	Kerala	111	274.14	32.607		
	(M.G.)	67	276.66	29.935		
	Calicut	110	277.63	34.929	1.999	0.114
	Kannur	26	274.14	32.607		
Total		**314**	**260.23**	**37.998**		

The table shows that, the calculated value of 'F' is 1.999. The 'p' value obtained is 0.114. Since the obtained 'F' value is less than, p=0.114, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Mental Health with respect to University among the student teachers in Kerala.

4.5.2.3 Data and Result of ANOVA for Self-Efficacy with Respect to University among Student Teachers in Kerala

The data regarding the Self-Efficacy with respect to University among student teachers in Kerala were made. The details are given in table 4.24.

Table 4.24

Data and Result of ANOVA in Self-Efficacy among Student Teachers in Kerala with Respect to University

Predictor Variable	University	N	Mean	SD	ANOVA	
					F-value	p
Self-Efficacy	Kerala	111	113.07	13.346		
	(M.G.)	67	111.63	15.309		
	Calicut	110	113.59	12.394	0.324	0.808
	Kannur	26	113.73	14.737		
Total		**314**	**113.00**	**13.544**		

From table 4.24, it is found that, the calculated value of 'F' is 0.324. The 'p' value obtained is 0.808. Since the obtained 'F' value is less than, p=0.808, it is not significant even at 0.05 level of significance. This shows that, there is no significant difference in Self-Efficacy with respect to University among the student teachers in Kerala.

4.5.2.4 Data and Result of ANOVA for Academic Achievement with Respect to University among Student Teachers in Kerala

The data regarding the Academic Achievement with respect to University among student teachers in Kerala were collected and analysed. The details are given in table 4.25.

Table 4.25

Data and Result of ANOVA in Academic Achievement among Student Teachers in Kerala with Respect to University

Criterion Variable	University	N	Mean	SD	ANOVA F-value	p
Academic Achievement	Kerala	111	754.18	80.808		
	(M.G.)	67	780.30	96.012		
	Calicut	110	700.57	65.416	26.291	0.000
	Kannur	26	653.23	62.076		
Total		**314**	**732.61**	**87.021**		

The table shows that, the calculated value of 'F' is 26.291. The 'p' value obtained is 0.000. Since the obtained 'F' value is greater than, p=0.000, it is significant at 0.01 level of significance. This shows that, there is significant difference in Academic Achievement with respect to University among the student teachers in Kerala. It is found that, the Mean value is highest for Mahatma Gandhi University (M=96.012), and is lowest for Kannur University (M=62.076). This shows that, student teachers of Mahatma Gandhi University are superior to others in Academic Achievement.

4.5.2.4.1 Data and Result of Scheffe's Post Hoc Test on Academic Achievement with Respect to University among Student Teachers in Kerala

Scheffe's Post Hoc test on Academic Achievement with respect to University was applied to find the significant difference among the different pairs of groups and the details are given in table 4.26.

Table 4.26

The Post Hoc Tests (Multiple Comparisons) on Academic Achievement among Student Teachers in Kerala with Respect to University

SI. No.	Pairs			Mean Difference (I-J)	P
1	Kerala University	vs.	(M.G.) University	26.118	0.136
2	Kerala University	vs.	Calicut University	53.607*	0.000
3	Kerala University	vs.	Kannur University	100.949*	0.000
4	(M.G.) University	vs.	Calicut University	79.726*	0.000
5	(M.G.) University	vs.	Kannur University	127.068*	0.000
6	Calicut University	vs.	Kannur University	47.342**	0.029

*The mean difference is significance at the 0.01 level.

**The mean difference is significance at the 0.05 level.

The table shows that, comparing the mean scores of student teachers, it is seen that there is a significant difference between student teachers in Kerala and Calicut Universities (F =53.607), Kerala and Kannur Universities (F =100.949), Mahatma Gandhi (M.G.), and Calicut Universities (F =79.726), Mahatma Gandhi (M.G.), and Kannur Universities (F =127.068), with respect to Academic Achievement, since 'p' is 0.000, which is less than the value for 0.01 level of significance. And there is a significant difference between the student teachers of Calicut and Kannur Universities (F =47.342), with respect to Academic Achievement, since 'p' is 0.029 which is significant at 0.05 level of significance. While there is no significant difference in Academic Achievement between student teachers of Kerala University and Mahatma Gandhi University (F =26.118).

The results indicated that, the Mental Health and Self-Efficacy of student teachers in Kerala are independent of University. It is found that, the Academic Achievement of student teachers is dependent to University and student teachers of Mahatma Gandhi University are superior to others in Academic Achievement.

4.6 SECTION 3: CORRELATION ANALYSIS

To find out the relationship or association between any two variables under Pearson's Coefficient of Correlation was calculated. The results of Pearson's Correlation Coefficient 'r', Partial Correlation Coefficient 'p' and Multiple Correlations between Mental Health, Self-Efficacy and Academic Achievement for total sample (N=314), are discussed in the section. The details are presented below under appropriate heads:

1. Pearson's Correlation Coefficient 'r' between the Variables for Total Sample.

2. Partial Correlation Coefficient 'p' and Result of Test of Significance of 'p' between the Variables for Total Sample.

3. Multiple Correlations between Academic Achievement and the Combined Effect of Mental Health and Self-Efficacy of Student Teachers in Kerala.

4.6.1 Pearson's Correlation Coefficient 'r' between the Variables for Total Sample

Pearson Product-Moment Coefficient of Correlation 'r' was done between Mental Health, Self-Efficacy and Academic Achievement for total sample (N=314), and the details are given below:

4.6.1.1 Pearson's Correlation Coefficient of Mental Health and Academic Achievement for Total Sample

In this part Pearson correlation coefficient 'r' of Mental Health and Academic Achievement for total sample (N=314) are given in table 4.27.

Table 4.27

Pearson's Coefficient of Correlation 'r' between Mental Health Status and Academic Achievement among Student Teachers in Kerala

	Component of Mental Health Status	Academic Achievement (Criterion Variable)	
		r	p
1	Attitude toward the Self	0.098	0.084
2	Positive Attitude toward Others	0.036	0.522
3	Self-Actualization	0.045	0.429
4	Integration	0.113^{*}	0.044
5	Autonomy	0.070	0.215
6	Perception of Reality	0.064	0.255
7	Environmental Mastery	0.114^{*}	0.044
8	Optimism	0.126^{*}	0.026
Total Mental Health Status		$\mathbf{0.123^{*}}$	**0.029**

[*]Correlation is significant at the 0.05 level (2-tailed)

From table 4.27, it is found that, the coefficient of correlation 'r' between Attitude toward the Self and Academic Achievement of student teachers is 0.098, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p = 0.084. It is seen that, there is no significant relationship between Attitude toward the Self and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Positive Attitude toward Others and Academic Achievement of the student teachers is 0.036, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p = 0.522. It is seen that, there is no significant relationship between Positive Attitude toward Others and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Self-Actualization and Academic Achievement of student teachers is 0.045, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p = 0.429. It is seen that, there is no significant

relationship between Self-Actualization and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Integration and Academic Achievement of the student teachers is 0.113, which indicates a low positive correlation between the two variables. The relationship between the two variables is significant at 0.05 level of significance since p = 0.044. It is seen that, there is significant relationship between Integration and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Autonomy and Academic Achievement of the student teachers is 0.070, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p = 0.215. It is seen that, there is no significant relationship between Autonomy and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Perception of Reality and Academic Achievement of the student teachers is 0.064, which indicates a low positive relationship between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p = 0.255. It is seen, that there is no significant relationship between Perception of Reality and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Environmental Mastery and Academic Achievement of the student teachers is 0.114, which indicates a low positive correlation between the two variables. The relationship between the two variables is significant at 0.05 level of significance since p = 0.044. It is seen that, there is significant relationship between Environmental Mastery and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Optimism and Academic Achievement of the student teachers is 0.126, which indicates a low positive correlation between the two variables. The relationship between the two variables is significant at 0.05 level of significance since p = 0.026. It is seen, that there is significant relationship between Optimism and Academic Achievement among the student teachers in Kerala.

The results indicated that, the components such as: Attitude toward the Self, Positive Attitude toward Others, Self-Actualization, Autonomy and Perception of Reality

of student teachers in Kerala are independent of Academic Achievement. It is found that, the components such as: Integration, Environmental Mastery and Optimism of student teachers in Kerala are dependent to Academic Achievement.

The coefficient of correlation 'r' between Total Mental Health Status and Academic Achievement of the student teachers is 0.123, which indicates a low positive correlation between the two variables. The relationship between the two variables is significant at 0.05 level of significance since p = 0.029. It is seen that, there is a significant relationship between Mental Health and Academic Achievement among student teachers in Kerala.

4.6.1.2 Pearson's Correlation Coefficient of Self-Efficacy and Academic Achievement for Total Sample

In this part Pearson's correlation coefficient 'r' of Self-Efficacy and Academic Achievement for total sample (N=314) are given in table 4.28.

Table 4.28

Pearson's Correlation Coefficient 'r' between Self-Efficacy and Academic Achievement among Student Teachers in Kerala

Predictor Variables	Academic Achievement (Criterion Variable)	
	r	p
Self-Efficacy	0.034	0.547

From table 4.28, it is found that, the coefficient of correlation 'r' between Self-Efficacy and Academic Achievement of student teachers is 0.034, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p=0.547. It is seen that, there is no significant relationship between Self-Efficacy and Academic Achievement among the student teachers in Kerala.

4.6.3 Pearson's Correlation Coefficient of Self-Efficacy and Academic Achievement for Total Sample

In this part Pearson correlation coefficient 'r' of Mental Health, Self-Efficacy and Academic Achievement for total sample (N=314), are given in table 4.29.

Table 4.29

Pearson's Correlation Coefficient 'r' between Mental Health, Self-Efficacy and Academic Achievement among Student Teachers in Kerala

Predictor Variables		Academic Achievement (Criterion Variable)
Mental Health	r	0.123*
	p	0.029
Self-Efficacy	r	0.034
	p	0.547

∗ Correlation is significant at the 0.05 level (2-tailed).

From table 4.29, it is found that, the coefficient of correlation 'r' between Mental Health and Academic Achievement of student teachers is 0.123, which indicates a low positive correlation between the two variables. The relationship between the two variables is significant at 0.05 level of significance since p=0.029. It is seen that, there is a significant relationship between Mental Health and Academic Achievement among the student teachers in Kerala.

The coefficient of correlation 'r' between Self-Efficacy and Academic Achievement of the student teachers is 0.034, which indicates a low positive correlation between the two variables. The relationship between the two variables is not significant even at 0.05 level of significance since p=0.547. It is seen, that there is no significant relationship between Self-Efficacy and Academic Achievement among the student teachers in Kerala.

From the results indicated that, the Mental Health of student teachers in Kerala is dependent to Academic Achievement. It is also found that the Self-Efficacy of student teachers in Kerala is independent of Academic Achievement.

4.6.2 Partial Correlation Coefficient: Mental Health, Self-Efficacy and Academic Achievement

The analysis based on Partial correlation coefficient is made and the details are given under appropriate heads.

4.6.2.1 Data and Result of Partial Correlation between Mental Health and Academic Achievement by Partialling out of the Effect of Self-Efficacy among Student Teachers in Kerala

The data regarding the Partial correlation coefficient and result of test of significance of Partial correlation coefficient between Mental Health and Academic Achievement by Partialling out of the effect of Self-Efficacy of student teachers in Kerala were made. The details are given in table 4.30.

Table 4.30

Partial correlation Coefficient and Result of Test of Significance of Partial Correlation Coefficient between Mental Health and Academic Achievement by Partialling out the Effect of Self-Efficacy of Student Teachers in Kerala

Partial Correlation Coefficient (P)	Fisher's t	df	p-value
0.19	0.741	311	1.00

The Partial correlation coefficient between Mental Health and Academic Achievement by Partialling out the effect of Self-Efficacy of the student teachers in Kerala is 0.19 which indicates positive but negligible relationship between the two variables.

The correlation between the two variables is not significant even at 0.05 level of significance as the calculated t-value 0.741 is less than the value required for significant level of 0.05.

The coefficient of partial correlation is positive but as the correlation is negligible, it indicates that an increase in Mental Health will result in a slight increase in Academic Achievement of the student teachers, if effect due to Self-Efficacy is eliminated for total sample.

Thus, the above result suggests that, there is positive but negligible correlation between Mental Health and Academic Achievement of the student teachers in Kerala when Partialling out the effect of Self-Efficacy for total sample.

4.6.2.2 Data and Result of between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among Student Teachers in Kerala

The data regarding the Partial correlation coefficient and result of test of significance of Partial correlation coefficient between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among student teachers in Kerala were made. The details are given in table 4.31.

Table 4.31

Partial Correlation and Result of Test of Significance of Partial Correlation between General Self-Efficacy and Academic Achievement by Partialling out the Effect of Mental Health among Student Teachers in Kerala

Partial Correlation Coefficient (P)	Fisher's t	df	p-value
0.120	0.034	311	1.00

The partial correlation coefficient between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health of the student teachers in Kerala is 0.120 which indicates positive but negligible relationship between the two variables.

The correlation between the two variables is not significant even at 0.05 level of significance as the calculated t-value 0.034 is less than the value required for significant level of 0.05.

The coefficient of partial correlation found that, there is a positive but negligible correlation between Mental Health and Academic Achievement of student teachers in Kerala when Partialling out the effect of Self-Efficacy for the total sample.

Thus, the above result showed that, there is a positive but negligible correlation between Self-Efficacy and Academic Achievement of the student teachers when Partialling out the effect of Mental Health for total sample.

4.6.3 Multiple Correlations between Academic Achievement and the Combined Effect of Mental Health and Self-Efficacy of Student Teachers in Kerala

Correlation coefficient of multiple correlation 'R' and coefficient of determination (R^2), between Academic Achievement and the combined effect of Mental Health and Self-Efficacy of student teachers is given in table 4.32.

Table 4.32

Multiple Correlations between Academic Achievement and the Combined Effect of Mental Health and Self-Efficacy among Student Teachers in Kerala

N	Multiple Correlation R	(R^2)	Adjusted R^2	Standard Error of Estimate	F-Value
314	0.125	0.016	0.009	86.619	2.45

The value of multiple correlations 'R' between Academic Achievement and the combined effect of Mental Health and Self-Efficacy of student teachers is 0.125. F-value obtained is 2.45. Since the obtained F-value is less than the table value of 'F' for 311 degrees of freedom (F =2.64), the coefficient of multiple correlations 'R' is not significant even at 0.05, level. Thus, there exists no significant combined correlation between Mental Health and Self-Efficacy on Academic Achievement among student teachers in Kerala.

The coefficient of determination (R^2), is 0.016 indicating that only 1.6 percentage of the data variation in Academic Achievement can be explained by the model by taking Mental Health and Self-Efficacy as the predictor variables. This means that there may be other variable influencing the Academic Achievement of the student teachers.

4.7 SECTION 4: REGRESSION ANALYSIS

Multiple regression analysis is a method for studying the effects and the magnitudes of the effects, of more than one independent variable or one dependent variable using principles of correlation and regression (Kerlinger, 1973, p.603). In the present study the Academic Achievement is taken as the dependent variable and Mental Health and Self-Efficacy are taken as the independent variables. The analysis based on Multiple Regression is made and the details are given under appropriate head.

4.7.1 Multiple Regression Analysis for Predicting Academic Achievement on the basis of Mental Health and Self-Efficacy for Total Sample.

The result of multiple regression analysis for predicting Academic Achievement on the basis of Mental Health and Self-Efficacy among the student teachers in Kerala is given in table 4.33.

Table 4.33

Independent Predictors of Academic Achievement on the Basis of Mental Health and Self-Efficacy for the Total Sample

Multiple Regression Analysis	B	SE	t	p
Constant	653.5	48.4	13.51	0.000
Mental Health	0.3	0.2	2.13	0.034
Self-Efficacy	-0.1	0.4	-0.33	0.741

F = 2.45

p = 0.088

R^2 = 0.016

Dependent Variable: Academic Achievement

The ANOVA test (F =2.45, p> 0.05), shows that, the regression analysis is not significant. The (R^2) value is 0.016, which means that only 1.6 percent variation in Academic Achievement can be predicted by Mental Health and Self-Efficacy. Only 1.6 percentage of data variation in Academic Achievement can be explained by the model, by taking Mental Health and Self-Efficacy as predictors that is, there may be other variables influencing the Academic Achievement of student teachers in Kerala.

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CHAPTER V
FINDINGS AND CONCLUSION

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CHAPTER V
FINDINGS AND CONCLUSION

5.1 INTRODUCTION

Many of the educationists consider that quantitative expansion of education has been achieved, at the cost of quality. Some well meanings critics of the educational system consider that the full benefits of have not been made available to a society because of sub-standard education provided. Academic achievement is one of the most important goals of education in this competitive age. Achievement itself on varying degree depends upon various factors like as result of the interaction between background factors, personality factors and institutional factors associated with students during their academic activities, which are termed as correlates of achievement and in turn categorizes pupils as high achievers, average achievers and low achievers. Out of these mental health can be considered as an important factor as good intellect depends on the sound mental health. Educationists in the formation and the creation of a healthy society have to identify the factors that cause of mental disorders as well as low level of self-efficacy of student teachers with a view of self-belief which the students realizes their own abilities, can cope with the normal stresses of life, can be excellence in the academic discipline and work productively and fruitfully, and is able to make a contribution to their community who have the fundamental responsibility as new generation of teachers in the improvement of our society and the welfare of new generation of mankind.

The finding of study may be eye opener to individuals, students, scholars, parents, teachers, teacher educators, educational researchers, counsellors, University authorities, families and the educational administrators in putting into place mechanisms that correlate the effects of mental health and self-efficacy as predictors of academic achievement among student teachers an essential concomitant of the welfare of all human society.

This study intends to verify whether there is any significant relationship between the predictor variables, Mental Health and Self-Efficacy with Academic Achievement

among student teachers. Influences of Gender and University as sub-samples were found. Hence, the investigator has come up with the idea of undertaking a study in Kerala and the problem for the study has been stated as "Mental Health and Self-Efficacy as Predictors of Academic Achievement of Student Teachers in Kerala".

Study in retrospect

The present study has been designed to assess the relationship between mental health and self-efficacy as predictors of academic achievement of student teachers in Kerala. The conclusions arrived from this study are presented in this chapter with a summary of the work done, findings, educational implications, and suggestion for further research are briefly discussed below:

5.2 HYPOTHESES OF THE STUDY

The major hypotheses formulated for the investigation were:

1. There exists significant relationship between predictor variable, Mental Health and criterion variable Academic Achievement among student teachers in Kerala.

2. There exists significant correlation between each of the components of Mental Health and Academic Achievement among student teachers in Kerala.

3. There exists significant relationship between Self-Efficacy and Academic Achievement among student teachers in Kerala.

4. There exists significant difference in Mental Health with respect to:
   a. Gender
   b. University.

5. There exists significant difference in Self- Efficacy with respect to:
   a. Gender
   b. University.

6. There exists significant difference in Academic Achievement with respect to:
   a. Gender
   b. University.

7. There exists significant correlation between Mental Health and Academic Achievement when Partialling out the effect of Self-Efficacy among student teachers in Kerala.

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8. There exists significant correlation between Self-Efficacy and Academic Achievement when Partialling out the effect of Mental Health among student teachers in Kerala.

9. There exists significant combined relationship between Self-Efficacy and Mental Health on Academic Achievement among student teachers in Kerala.

10. Each of the associate variables, Mental Health and Self-Efficacy is a significant predictor of Academic Achievement among student teachers in Kerala.

5.3 OBJECTIVES OF THE STUDY

The major objectives formulated for the investigation were:

1. To find the relationship between Mental Health and Academic Achievement among student teachers of Kerala.

2. To find the relationship between each of the components of Mental Health and Academic Achievement among student teachers of Kerala.

3. To find the relationship between Self-Efficacy and Academic Achievement among student teachers of Kerala.

4. To find whether there exists significant difference in each of the predictor variables Mental Health and Self-Efficacy with respect to:

   a. Gender

   b. University.

5. To find whether there exists significant difference in the criterion variable Academic Achievement with respect to:

   a. Gender

   b. University.

6. To find the correlation between Mental Health and Academic Achievement by Partialling out the effect of Self-Efficacy among student teachers in Kerala.

7. To find the correlation between Self-Efficacy and Academic Achievement by Partialling out the effect of Mental Health among student teachers in Kerala.

8. To find the combined relationship of predictor variables, Mental Health and Self-Efficacy on criterion variable Academic Achievement among student teachers in Kerala.

9. To test the predictive efficiency of each of the associate variables to predict Academic Achievement among student teachers in Kerala.

5.4 VARIABLES

The study has been conceived around three major variables. The predictor variables of the study are Mental Health and Self-Efficacy and the criterion variable of the study is Academic Achievement.

5.5 METHODOLOGY IN BRIEF

Research methodology is a way to systematically solve the research problem. It is a science of studying how research is done systematically. The brief of methodology are given below:

5.5.1 Method Adopted for the Study

Considering the nature of the problem, data to be used and the objectives selected for the study, the method used for the present study is survey method. The study is descriptive and co-relational in nature.

5.5.2 Sample

The sample for the study consisted of 314 students undergoing M.Ed. programme on regular basis in University Departments and affiliated Colleges under the Universities such as Kerala, Mahatma Gandhi, Calicut and Kannur in Kerala. Additional details about the sample are presented in Chapter III of this report.

5.5.3 Tools used for the study

Data for the study were collected by using the following tools:

1. Mental Health Status Scale (M.H.S. Scale).
2. General Self-Efficacy Scale (G.S.E. Scale).

The scales were prepared and standardized by the investigator. The details are given below:

5.5.3.1 Mental Health Status Scale (M.H.S. Scale)

In the Mental Health Status Scale (M.H.S. Scale) eight components of mental health were included. The components were selected based on the discussions made with the experts and the supervising teacher. The eight components selected are: i) Attitudes

toward the self, ii) Positive attitude toward others, iii) Self-actualization, iv) Integration, v) Autonomy, vi) Perception of Reality, vii) Environmental mastery and viii) Optimism factors.

5.5.3.2 General Self-Efficacy Scale (G.S.E. Scale)

The scale was developed to assess a general sense of self-efficacy with the aim in mind to predict coping with daily hassles as well as adaption after experiencing all kind of stressful life events.

Note: The study used the total score of B.Ed. course to assess the academic achievement of the sample selected.

5.5.4 Statistical Techniques Used

The relationships of the variable, 'Mental Health' with each of the two other variables viz., 'Self-Efficacy' and 'Academic Achievement' was separately investigated by using the following statistical techniques:

1. Section1: Preliminary Analysis
2. Section 2: t-Test and ANOVA
3. Section 3: Correlation Analysis
4. Section 4: Regression Analysis

Details regarding the statistical techniques used for the study are given in Chapter III.

5.6 TENABILITY OF THE HYPOTHESES

The Hypotheses formulated for this study were tested using statistical analysis and the tenability of the hypotheses is presented below:

Hypothesis1: There exists significant relationship between predictor variable, Mental Health and criterion variable Academic Achievement among student teachers in Kerala.

Pearson's Coefficient of Correlation 'r' has done to test this hypothesis. The results indicated that, there is significant relationship between Mental Health and Academic Achievement among student teachers in Kerala. Hence, the hypothesis 1 is accepted.

Hypothesis 2: There exists significant correlation between each of the components of Mental Health and Academic Achievement among student teachers in Kerala.

Pearson's Coefficient of Correlation 'r' has done to test this hypothesis. The results showed that, the components such as: Attitude toward the Self, Positive Attitude toward Others, Self-Actualization, Autonomy and Perception of Reality of student teachers in Kerala are independent of Academic Achievement. It is found that the components such as: Integration, Environmental Mastery and Optimism of student teachers in Kerala are dependent to Academic Achievement.

Hypothesis 3: There exists significant relationship between Self-Efficacy and Academic Achievement among student teachers in Kerala.

Pearson's Coefficient of Correlation 'r' has done to test this hypothesis. The results indicated that, there is no significant relationship between Self-Efficacy and Academic Achievement among the student teachers in Kerala. Hence, the hypothesis 3 is rejected.

Hypothesis 4: There exists significant difference in Mental Health with respect to:

a. Gender

b. University.

t-test has done to test the sub-sample of Gender for this hypothesis. The results indicated that, there is no significant difference in Mental Health with respect to Gender among the student teachers in Kerala. Hence, the hypothesis 4.a is rejected.

One way ANOVA has done to test the sub-sample of University for this hypothesis. The results indicated that, there is no significant difference in Mental Health with respect to University among the student teachers in Kerala. Hence, the hypothesis 4.b is rejected.

Hypothesis 5: There exists significant difference in Self- Efficacy with respect to:

a. Gender

b. University

t-test has done to test the sub-sample of Gender for this hypothesis. The results indicated that, there is no significant difference in Self-Efficacy with respect to Gender among the student teachers in Kerala. Hence, the hypothesis 5.a is rejected.

One way ANOVA has done to test the sub-sample of University for this hypothesis. The results indicated that, there is no significant difference in Self-Efficacy

with respect to University among the student teachers in Kerala. Hence, the hypothesis 5.b is rejected.

Hypothesis 6: There exists significant difference in Academic Achievement with respect to:

  a. Gender

  b. University

t-test has done to test the sub-sample of Gender for this hypothesis. The results indicated that, there is no significant difference in Academic Achievement with respect to Gender among the student teachers in Kerala. Hence, the hypothesis 6.a is rejected.

One way ANOVA has done to test the sub-sample of University for this hypothesis. The results indicated that, there is significant difference in Academic Achievement with respect to University among the student teachers in Kerala. It was also found that, the student teachers of Mahatma Gandhi University are superior to others in Academic Achievement. Hence, the hypothesis 6.b is accepted.

Hypothesis 7: There exists significant correlation between Mental Health and Academic Achievement when Partialling out the effect of Self-Efficacy among student teachers in Kerala.

Partial correlation Coefficient has done to test this hypothesis. The results indicated that, there is a positive but negligible correlation between Mental Health and Academic Achievement of the student teachers in Kerala when Partialling out the effect of Self-Efficacy for total sample.

Hypothesis 8: There exists significant correlation between Self-Efficacy and Academic Achievement when Partialling out the effect of Mental Health among student teachers in Kerala.

Partial correlation Coefficient has done to test this hypothesis. The results indicated that, there is a positive but negligible correlation between Self-Efficacy and Academic Achievement of the student teachers when Partialling out the effect of Mental Health for total sample.

Hypothesis 9: There exists significant combined correlation between Self-Efficacy and Mental Health on Academic Achievement among student teachers in Kerala.

Correlation coefficient of multiple correlation 'R' and coefficient of determination (R^2) between Academic Achievement and the combined effect of Mental Health and Self-Efficacy of student teachers has done to test this hypothesis. The results indicated that, there exists no significant combined correlation between Mental Health and Self-Efficacy on Academic Achievement among the student teachers in Kerala. Hence, the hypothesis 9 is rejected.

Hypothesis 10: Each of the associate variables, Mental Health and Self-Efficacy is a significant predictor of Academic Achievement among student teachers in Kerala.

Multiple Regression equation for predicting of Academic Achievement on the basis of Mental Health and Self-Efficacy for the total sample has done to test this hypothesis. The results of regression analysis showed that, each of the associate variables, Mental Health and Self-Efficacy is not significant predictor of Academic Achievement among student teachers in Kerala. Hence, the hypothesis 10 is rejected.

5.7 FINDINGS OF THE STUDY

The major findings of the present study are given under the various sub-heads:

5.7.1 Difference in the Various Components of Mental Health Status based on Gender among the Student Teachers in Kerala

1. There is no significant difference in Attitude toward the Self with respect to Gender among the student teachers in Kerala.

2. There is no significant difference in Positive Attitude toward Others with respect to Gender among the student teachers in Kerala.

3. There is no significant difference in Self-Actualization with respect to Gender among the student teachers in Kerala.

4. There is no significant difference in Integration with respect to Gender among the student teachers in Kerala.

5. There is no significant difference in Autonomy with respect to Gender among the student teachers in Kerala.

6. There is no significant difference in Perception of Reality with respect to Gender among the student teachers in Kerala.

7. There is no significant difference in Environmental Mastery with respect to Gender among the student teachers in Kerala.

8. There is no significant difference in Optimism with respect to Gender among the student teachers in Kerala.

The results indicated that, the components such as: Attitude towards Self, Positive Attitude toward Others, Self-Actualization, Integration, Autonomy and Perception of Reality, Environmental Mastery and Optimism of student teachers in Kerala are independent of Gender.

5.7.2 Difference in the Mental Health Status, Self-Efficacy and Academic Achievement based on Gender among the Student Teachers in Kerala

1. There is no significant difference in Mental Health with respect to Gender among the student teachers in Kerala.

2. There is no significant difference in Self-Efficacy with respect to Gender among the student teachers in Kerala.

3. There is no significant difference in Academic Achievement with respect to Gender among the student teachers in Kerala.

The results showed that, the Mental Health, Self-Efficacy and Academic Achievement of student teachers in Kerala are independent of Gender.

5.7.3 Difference in the Various Components of Mental Health Status based on University among the Student Teachers in Kerala

1. There is no significant difference in Attitude towards Self with respect to University among the student teachers in Kerala.

2. There is a significant difference in Positive Attitude towards Others with respect to University among the student teachers in Kerala. It is found that student teachers of Calicut University are superior to others in Positive Attitude towards Others.

3. There is no significant difference in Self-Actualization with respect to University among the student teachers in Kerala.

4. There is no significant difference in Integration with respect to University among the student teachers in Kerala.

5. There is no significant difference in Autonomy with respect to University among the student teachers in Kerala.

6. There is no significant difference in Perception of Reality with respect to University among the student teachers in Kerala.

7. There is a significant difference in Environmental Mastery with respect to University among the student teachers in Kerala. It is found that student teachers of Mahatma Gandhi University are superior to others in Environmental Mastery.

8. There is no significant difference in Optimism with respect to University among the student teachers in Kerala.

The results indicated that, the components such as: Attitude towards Self, Self-Actualization, Integration, Autonomy and Perception of Reality of student teachers in Kerala are independent of University. It is also found that, the components such as: Positive Attitude towards Others and Environmental Mastery of student teachers is dependent to University.

5.7.4 Difference in the Mental Health, Self-Efficacy and Academic Achievement based on University among the Student Teachers in Kerala

1. There is no significant difference in Mental Health with respect to University among the student teachers in Kerala.

2. There is no significant difference in Self-Efficacy with respect to University among the student teachers in Kerala.

3. There is significant difference in Academic Achievement with respect to University among the student teachers in Kerala. It is found that student teachers of Mahatma Gandhi University are superior to others in Academic Achievement.

The results indicated that, the Mental Health and Self-Efficacy of student teachers in Kerala are independent of University. It is found that, the Academic Achievement of student teachers is dependent to University and student teachers of Mahatma Gandhi University are superior to others in Academic Achievement.

5.7.5 Relationship between the Various Components of Mental Health Status and Academic Achievement for Total Sample

1. There is no significant relationship between Attitude toward the Self and Academic Achievement among the student teachers in Kerala.

2. There is no significant relationship between Positive Attitude toward Others and Academic Achievement among the student teachers in Kerala.

3. There is no significant relationship between Self-Actualization and Academic Achievement among the student teachers in Kerala.

4. There is a significant relationship between Integration and Academic Achievement among the student teachers in Kerala.

5. There is no significant relationship between Autonomy and Academic Achievement among the student teachers in Kerala.

6. There is no significant relationship between Perception of Reality and Academic Achievement among the student teachers in Kerala.

7. There is a significant relationship between Environmental Mastery and Academic Achievement among the student teachers in Kerala.

8. There is significant relationship between Optimism and Academic Achievement among the student teachers in Kerala.

The results indicated that, the components such as: Attitude toward the Self, Positive Attitude toward Others, Self-Actualization, Autonomy and Perception of Reality of student teachers in Kerala are independent of Academic Achievement. It is also found that, the components such as: Integration, Environmental Mastery and Optimism of student teachers in Kerala are dependent to Academic Achievement.

5.7.6 Relationship between the Mental Health, Self-Efficacy and Academic Achievement among the Student Teachers in Kerala

1. There is significant relationship between Mental Health and Academic Achievement among student teachers in Kerala.

2. There is no significant relationship between Self-Efficacy and Academic Achievement among the student teachers in Kerala.

From the results indicated that, the Mental Health of student teachers in Kerala is dependent to Academic Achievement. It is also found that the Self-Efficacy of student teachers in Kerala is independent of Academic Achievement.

5.7.7 Correlation between Mental Health and Academic Achievement when Partialling out the Effect of Self-efficacy among Student Teachers in Kerala

The results indicated that, there is a positive but negligible correlation between Mental Health and Academic Achievement of student teachers in Kerala when Partialling out the effect of Self-Efficacy for the total sample.

5.7.8 Correlation between Self-Efficacy and Academic Achievement when Partialling out the Effect of Mental Health among Student Teachers in Kerala

The results indicated that, there is a positive but negligible correlation between Self-Efficacy and Academic Achievement of student teachers when Partialling out the effect of Mental Health status for the total sample.

5.7.8 Multiple Correlations between Academic Achievement and the Combined Effect of Mental Health and Self-Efficacy of Student Teachers in Kerala

From The results indicated that, there exists no significant combined correlation between Mental Health and Self-Efficacy on Academic Achievement among the student teachers in Kerala.

5.7.9 Predictive Efficiency of the Associate Variables to Predict Academic Achievement among Student Teachers in Kerala

From the results it was found that, the associate variables, Mental Health and Self-Efficacy were not significant predictors of Academic Achievement among the student teachers in Kerala. Only 1.6 percentage of data variation in Academic Achievement can be explained by the model, by taking Mental Health and Self-Efficacy as predictors that is, there may be other variables influencing the Academic Achievement of student teachers in Kerala.

5.8 DISCUSSION OF THE RESULTS

The present study moves on from the review of literature to examining the relationship between Mental Health and Self-Efficacy as predictors of Academic Achievement of student teachers in Kerala.

Many sources, as stated in the literature review are (Owiti, D.S.O., 2001; Chabris and Simons, 2010; Momanyi, M.J., Ogoma, O. Sh. and Misigo, L. B. ,2010), indicated significant difference in various components of Mental Health Status, Self-Efficacy and Academic Achievement with respect to Gender. However, the statistical results of the study indicated that, components of Mental Health such as: Attitude towards Self,

Positive Attitude toward Others, Self-Actualization, Integration, Autonomy and Perception of Reality, Environmental Mastery and Optimism of student teachers in Kerala are independent of Gender. It was also found that, the Mental Health, Self-Efficacy and Academic Achievement of student teachers in Kerala are independent of Gender. Similarly, Smist et al., (1997), found opposite result, in which there is no significant gender difference in their self-efficacy in college and also according to relevant literature and studies by other research studies (Clifton, 2014; Naderi et al., 2008, Naderi et al., 2009), found no differences between males' and females' academic achievement.

The results found that, the component of Mental Health Status, Positive Attitude towards Others is dependent to University and the student teachers of Calicut University were superior to others in Positive Attitude towards Others. The results also indicated that, the component of Mental Health such as, Environmental Mastery is dependent to University and the student teachers Mahatma Gandhi University were superior to others in Environmental Mastery. The results showed that, the Academic Achievement of student teachers was dependent to University and the student teachers of Mahatma Gandhi University were superior to others in Academic Achievement. These results confirm previous research conducted by (Fine and Carlson, 1994; Sieber, O'Neil and Tobias, 1977; Tsouros, A.D., et al., 1998; and Ghanaei, Chamanabad et al., 2011). However, the statistical findings of the research were determined that, the components of Mental Health such as: Attitude towards Self, Self-Actualization, Integration, Autonomy and Perception of Reality of student teachers in Kerala were independent of University. It was also found that, the Mental Health, Self-Efficacy of student teachers in Kerala were independent of University.

Many studies have shown that relationship between Mental Health and Academic Achievement. According to relevant literature and studies by (Memichaei, A. & Hetzl, B., 1975; Fuchs, 1982; Brian, 2002; Goldman and Lakdawalla, 2001 or Goldman and Smith, 2002; Tangade et al., 2011; Suldo, Thalji and Ferron, 2011; A., Ismail, A. and Mahadevan, R., 2013), as well as the current research findings, it is possible to come to the following conclusions. The components of Mental Health such as Integration, Environmental Mastery and Optimism of student teachers in Kerala are dependent to Academic Achievement. The results also revealed that, the Mental Health of student

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teachers in Kerala is dependent to Academic Achievement. However, the results of the present study indicated that, the certain components of Mental Health such as Attitude toward the Self, Positive Attitude toward Others, Self-Actualization, Autonomy and Perception of Reality of student teachers in Kerala are independent of Academic Achievement.

Many researchers have done and proved that, there is relationship between Self-Efficacy and Academic Achievement of students (Bandura and Schunk, 1981; Bandura, 1986; Hackett and Betz, 1989; Holden et al., 1990; Pajares, 2000), the result of study were not consistent with previous research findings and it was revealed that, Self-Efficacy of student teachers in Kerala was independent of Academic Achievement.

The results indicated that, there was a positive but negligible correlation between Mental Health and Academic Achievement of student teachers in Kerala when Partialling out the effect of Self-Efficacy for the total sample. The results also showed that, there was a positive but negligible correlation between Self-Efficacy and Academic Achievement of student teachers when Partialling out the effect of Mental Health status for the total sample.

The study could not find out the combined relationship of predictor variables, Mental Health and Self-Efficacy on criterion variable Academic Achievement among student teachers in Kerala. From the results it was found that, each of the associate variables, Mental Health and Self-Efficacy was not significant predictor of Academic Achievement among student teachers in Kerala.

In conclusion, the study sought to bring attention to the correlation between Mental Health and Self-Efficacy with Academic Achievement. Since, it has been established by other researchers that, Mental Health and Self-Efficacy are two predictors of Academic Achievement. The study has done among student teachers at the four Universities in Kerala and the investigator has taken the value of Total Mental Health Status and General Self-Efficacy among the students in Kerala to predict their Academic Achievement.

The study has considered the Total Mental Health value as a predictor variable of Academic Achievement, however in the study Mental Health consists of eight components The results found that, there is significant difference in the components of

Mental Health Status such as Positive Attitude towards Others, Environmental Mastery and Academic Achievement with respect to University among the student teachers in Kerala. There is also significant relationship between the components of Mental Health Status such as Integration, Environmental Mastery, Optimism and Total Mental Health with Academic Achievement among the student teachers in Kerala and the findings are supported by research from other sources.

General teaching efficacy beliefs are more likely to change when prospective teachers are exposed to vicarious learning experience and the many training tasks or assignments. Personal teaching efficacy beliefs, on the other hand are strongly influenced by mastery learning, such as teaching practice experiences. It is also noted that at the same time, during teaching practice, general efficacy beliefs level would decline. The assumption is that realities and authentic classroom teaching experience had made the teacher trainees realize the many demands and challenges faced by teachers, and that teaching theories do not always cater for these classroom and instructional problems.

Researches on self-efficacy development have been suggested that efficacy judgments are most malleable in the early stages of mastering a skill and become more set with experience at least as long as the context and task remains relatively stable. So it makes sense that, early teaching experiences would be important shapers of efficacy judgments. If these early experiences are positive, then new teachers are better able to persist in the face of the inevitable disappointments and discouragement of the first attempts at school teaching.

The data regarding the students' Academic Achievement in the study was indicated by the total score obtained out of 1000 at the Bachelor course in Education (B.Ed.). However, there are extraneous variables regarding the student's Academic Achievement were not controlled in the study. For example, factors which may influence Academic Achievement such as: Background factors consisting of characteristics such as child rearing practices, home environment, parent-child relationship, family size, type of family, economic conditions of the family, educational status of the family, rural-urban residence, etc. of the learner. Personality factors comprising of intelligence, creativity, thinking, perception, cognitive style, attitude, motivation, and many more concerned with the learner. Institutional factors comprising of factors related to institution, such as

climate of the institution and classroom, teacher characteristics, interpersonal relationship and methods of teaching.

According to Wang and Pape (2005), Academic achievement, as a dependent variable, is not under the influence of one factor, but rather of several factors, including academic intelligence, cognitive factors-such as general intelligence, academic self-efficacy self-regulated strategies, academic motivation, learners' ability, teacher training, and learners' motive.

Recently, from the different social cognitive points of view, researchers have identified the various and determining factors of academic achievement (Seif, 2007). Achievement is the result of host of factors interacting with each other. Several reasons can be cited for the increasing rate of failure and underachievement. Many believe that faulty study habits, defective testing methods, social and economic disparities, etc. are important contributing factors in failure and poor achievement.

Therefore, the above mentioned aspects maybe were the reasons for getting such results.

5.9 EDUCATIONAL IMPLICATIONS OF THE STUDY

Any research study is incomplete without citing implications based on the findings. The findings of the present study indicate that, the associate variables in the study, viz. Mental Health and Self-Efficacy are not predictors of Academic Achievement of student teachers in Kerala. However, the findings revealed that, there is significant difference in the components of Mental Health Status such as: Positive Attitude towards Others, Environmental Mastery and Academic Achievement with respect to University among the student teachers in Kerala. There is also significant relationship between the components of mental health status such as: Integration, Environmental Mastery, Optimism and Total Mental Health with Academic Achievement among the student teachers in Kerala. Therefore, based on the findings, it is proposed that, serious consideration of remolding of scholastic and non-scholastic activities are needed for the students.

Academic achievement is one of the most important goals of education in this competitive age. It is commonly measured by examinations or continuous assessment and

there is no general agreement on how it is best tested or which aspect is most important procedural knowledge such as skills or declarative knowledge such as fact. It is a complex phenomenon as a dependent variable, is not under the influence of one factor. So, it is not determined solely by mental health, self-efficacy or any other single variable. Individual differences in academic achievement have linked to different factors.

As the twenty first century approaches, the well-being of student teachers is one of our most important concerns. Most problems of today's student teachers are not with themselves. The society has far greater responsibility in this regard. The investigator developed standardized tools for measuring the mental health and self-efficacy which can be used for assessing the mental health status and general self-efficacy of student teachers. The present study provides guidelines for families, student teachers, teacher educators, educational researchers, administrators and curriculum makers to looking into the possible way for correlating mental health and self-efficacy as predictors of academic achievement among the student teachers for better educational outcomes as well as for further researches in the research area based on the findings. The results of the present investigation have definite most important educational implications in a number of domains and they are given under the heads:

5.9.1 Families

For centuries, people had imagined that if their children reach to adulthood, they have done a great job. If their children have survived against illness, accidents and assaults, they will achieve great success, however nowadays a more sophisticated vision has formed for children and their growth. Children will need psychological, social and sensational requirements soon after survival. If they do not meet these requirements, they will not only hurt the person in the family, but it will jeopardize the structure of society and its safety and efficiency.

Family is the first institution where a child is educated and raised. The role of family does not end once children join to school. A family can preserve this role even when children go to school and University. On the other hand the role of school, University in academic achievement of students is undeniable but at the same time, without parental contribution, one cannot have full-fledged academic achievement. An important point that should be borne in mind is education based on proper planning

should meet the requirements of children from lower ages. Since education is partly imparted to the students at home, parents are willingly or unwillingly involved in the educational programme offered by educational institutions. It is obvious that mental health problems of parents transmit to their children background factors consisting of characteristics such as child rearing practices, home environment, parent-child relationship, family size, type of family, economic conditions of the family, educational status of the family, rural-urban residence, etc., of the learner.

5.9.2 Teacher Educators and Educational Researchers

What we know instinctively still leaves some big questions, especially for those in charge of hiring, training and retaining a qualified teaching force. The investigator has been going to leave the questions based on the findings of study for teacher educators which are recommended as educational implications at the end of this study for re-starting and re-thinking for the role of teacher educators and may be the beginning for re-searching for further researches in the research area: What is the meaning of being a teacher? How do you define a good teacher? What characteristics do you looking for? If teachers are so important to students' academic achievement, how can you make sure all students receive the benefit of good teachers? What are you teaching? Are you agreement with this situation of world? Are you agreement with man as he is today? Are you agreement with the wars, violence and dishonesty? If not, think and find out what has gone wrong in education. The secret in education lies in respecting the students. Teacher educators have to build the structure of education on love no on competition. Propose of learning has never been to score well on a test. They should create a healthy educational and friendly environment in the classroom where student teacher can freely ask their doubts without hesitation. Teacher educators should take care of mental health of student teachers for better educational outcomes and providing abundance of experiences and building beliefs in student teachers is essential for the students to develop their mental health and the sense of self-efficacy.

Mental health and self-efficacy are considered as the major requirements of educational objectives because they are essential for efficient learning. Education reform cannot succeed unless it focuses on creating the conditions under which teacher educators can teach and create well. The present era of educational scene is fast changing. Modern

age is the age of competition, which results in tension and mental illness. Mental health problems and lack of self-efficacy have been with the outcome such as depression, anxiety, violent behavior, or even social withdrawals. There are certain psychological problems contributed by academic achievement of student too. It is necessary for teacher educators and educational researchers to understand the factors that may contribute to students' academic achievement, so as to plan better classroom activities and strategies of teaching and learning.

5.9.3 Student Teachers

Academic achievement is under the influence of several factors, including academic intelligence, cognitive factors-such as general intelligence, academic self-efficacy , self-regulated strategies, academic motivation, learners' ability, teacher training, and learners' motive and interest, aptitude, expectancy, cognitive style, creativity, and level of aspiration. In spite of all the best efforts made in educational systems to raise the abilities, capabilities and personality traits of students, it is not possible for us to attain the optimum level of educational goals i.e., all round development of one's personality. One of the major factors influencing educational products is the sound mental health which is a key to success in all domains of life.

Today, students live in a society which has become multi-complex, and making the role of students very diffuse and confusing. When students approach the demands of adulthood, they must learn to assume full responsibility for themselves in almost each dimension of life. This requires mastering many new skills which develop new competencies and self-beliefs of efficacy among them. They must learn to assume full responsibility for them in almost each dimension of life. The students have to find the way to learn and move through the pain and pick ourselves back up.

The student teachers are going to build a bridge for the future of education. They are going to become teachers and teacher educators for the new generations of mankind. To achieve these objectives, a student teacher should be mentally and psychologically fit and free from all kind of mental disorders and with high level of self-efficacy to teach effectively in his/her classroom.

5.9.4 Teacher Training Institutions

One of the most significant concerns of modern society is how to produce component society and self-respecting citizens. They are some of educational environments factors comprising of factors related to institution, such as climate of the institution and classroom, teacher characteristics, interpersonal relationship, methods of teaching, etc., the teacher training institutions should be endowed with various activities and programmes which are relevant and needed for the development of student teachers.

Therefore free discipline should /maintain in the classroom. There should be an absence of over restriction in the educational environments. It is recommended that special activities and educational programmes such as: personality development programmes, problem solving sessions, orientation programmes and workshops, social excursions, public services, etc., may be organized in the teacher training institutions. So, it will help the student teachers to overcome the problematic situations and thereby achieving better academic results as well as personality traits. It is also desirable to set up at least one counselling centre in every teacher training institutions with a well trained psychologist and social worker who can help to solve the problems of the students and suggest remedial measures to them to cope with emotional and social situations at home, teacher training institutions and wider social arena.

5.9.5 Educational Administrators

Education has been regarded as an essential concomitant of all human society. It has been one of the most important means to improve personal endowments, build capabilities, overcome constraints and in the process, enlarge available set of opportunities and choices for sustained improvement in well-being. However, the functioning of the educational process itself may become a source of stress and strain and mental disorder for its participants. This partly may be due to lack of the necessary aptitude and attitude in the learner and the instructor or in the features of the educational process.

Educational administrators of teachers training institutions are playing an important role in the educational process of student teachers. They need to pay attention that, from where has the present society been born? If the result of the study is wrong! all these mental and behavioural disorders, all this violence that goes on all around the world

, this suffering, war, anguish, helplessness and poverty in the world- where are all these coming from? What do we want from the education? What kind of education do we want? What does quality means in the context of education? In the name of giving education to the mankind, we continue to compare one man with the other, we will always remain on the wrong path. That wrong path is that, we are creating a desire in man to be like someone else; and the fact is that, no one has been or can be like any other man. We call this education! In this system of education there is no place for unsuccessful people. We are just creating the fever of success, and so, it is only natural that one who wants to succeed in the world does what he can do. Success hides all wrong doings. In a world based on this violence or education, if there are continuous conflicts, disorders and wars it is no wonder! The present condition of education, its structure, and the type of man that is produced, is so totally wrong. That is natural that only unhealthy and confused human beings are born out of it.

Thus, with the aforesaid strategies and programmes as well as other well thought follow ups, families, teacher educators, educational researchers, teacher training institutions and educational administrators can play a significant role in solving the problems by paying attention regarding to learners quality, learning environment quality, content and the process of outcome. The secret of healthy mind is not related to what we have, but in how we are using what we have.

5.10 SUGGESTIONS FOR THE FURTHER RESEARCH

The present study was an attempt to identify the relationship between Mental Health and Self-Efficacy with Academic Achievement of student teachers in Kerala. The study was limited in scope and hence the finding should be looked upon as presenting only a small part of the total picture. Based on the findings obtained, the investigator would like to suggest on the following areas of further research:

1. There are several avenues for future research on this topic. Further studies can be conducted by using other relevant variables like locality, religion and socio-economic status and different types of personality variables, etc., to find out the mental health and self-efficacy of student teachers in Kerala or any other state in India.

2. Replication of the study for other student teachers such as; B.Ed. students, M.Phil. Scholars and Ph.D. Scholars in the field of Education would be required.

3. Control of extraneous variables is advised. For example, factors which may influence academic achievement such as: background factors, personality factors and institutional factors that can influence academic achievement. Further research is necessary to control the factors which may affect students' academic achievement.

4. Based on the findings of the present study, it is advisable to prepare a standard scale to find out the academic achievement with respect to background factors, personality factors and institutional factors of student teachers.

5. Other factors that may influence students' self-efficacy levels include cultural impact and parents' efficacy concerning their children. These factors were not assessed in the research study, but can be considered for additional research.

6. Research studies with much larger sample size would be required to ensure appropriate generalization of the findings of this kind of studies.

7. Gender equality is an often-used but infrequently defined term. Translating the concept of gender equality in education into a practical framework will assist education programmers in better designing, managing, and evaluating education projects. To be practical, this research work must draw clear distinctions and demonstrate interrelationship among gender equality. Consideration of gender equality between genders in size would be required to ensure appropriate generalization of the findings of the study.

9. Replication of comparative study between teacher training institutions in India with other counties can be done for further research.

10. A broader study on the lines of the present study may be conducted with teachers in schools and colleges for comparison.

11. Case studies may be conducted by selecting reprehensive samples from each variable.

12. A study to explore academic achievement problems and effective of mental health and self-efficacy among student teachers may be undertaken.

13. Similar type of study can be conducted on teacher educators. The mental health problems of the student teachers and teacher educators can be studied. The same procedure can be done on self-efficacy of the student teachers and teacher educators.

14. Even if the associate variables, Mental Health and Self-Efficacy were not a significant predictor of Academic Achievement among the student teachers in this research. Interestingly, there is a significant difference in the components of Mental Health Status such as: Positive Attitude towards Others, Environmental Mastery and Academic Achievement with respect to University among student teachers in Kerala. There is also significant relationship between the components of mental health status such as: Integration, Environmental Mastery, Optimism and Total Mental Health with Academic Achievement among the student teachers in Kerala. Therefore, further researchers need to focus on identifying those factors that brought this difference.

The present investigator would be gratified, if the results of this study are made use of by those who concerned.

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APPENDICES

Appendix-A

List of Experts in the Study

SI. No.	Name	Profession	University	Departments and Affiliated Colleges	Location
1	Dr. Theresa Susan A.	Head	Kerala	Department of Education	Thiruvananthapuram
2	Dr. Bindu. D.	Assistant Professor			
3	Dr. Geetha Jnet Vitus	Assistant Professor			
4	Dr. Bindu R.L	Assistant Professor			
5	Dr. Asha J.V.	Assistant Professor			
6	Dr. S.Raju	Head		Department of Psychology	Thiruvananthapuram
7	Dr. B. Suresh	Principal		Govt. College of Teacher Education	Thiruvananthapuram
8	Dr. B.H. Helen Joy	Principal			
9	Dr. Jayasree. T.K.	Assistant Professor			
10	Dr. V. K. Shoba	Assistant Professor			
11	Dr. Bindu.S	Assistant Professor			
12	Mr.Pramod Dinakar	Assistant Professor		CSI College of Education	Parassala
13	Dr. K. Y. Benedict	Principal		Marthophilus Training College	Thiruvananthapuram
14	Dr. Giby Geevarughese	Assistant Professor			
15	Dr. Neena Thomas	Assistant Professor			
16	Dr. Tara S. Nair	Assistant Professor		N.S.S. Training College	Pandalam
17	Dr. P. Usha	Head	Calicut	Department of Education	Calicut
18	Dr. Baiju.K.	Assistant Professor			
19	Dr. Abdul Khader	Principal		Govt. College of Teacher Education	Calicut
20	Dr. C. A. Jawhar	Principal		Farook Training College	Farook
21	Dr. B.H. Helen Joy	Principal		Institute of Advanced Study in Education	Thrissur
22	Dr. Lekshmi. K. Nair	Principal		N.S.S. Training College	Ottapalam
23	Dr. Sheeba Kirishnan	Assistant Professor			
24	Mrs.Anju Kirishna.K.S.	Assistant Professor			
25	Dr. Celine Pereira	Director	Mahatma Gandhi	School of Pedagogical Sciences	Kottayam
26	Dr. Varghese. Cheriyan	Principal		St.Joseph's Training College	Kottayam
27	Dr. T. K. Mathew	Principal		Titus II Teachers College	Thiruvalla
28	Dr. Sunila Thomas	Assistant Professor			
29	Dr. Celene Joseph	Principal		St. Thomas College of Teacher Education	Pala
30	Dr. Lavina Dominic	Assistant Professor			
31	Dr.Bindhu C.M.	Head	Kannur	School of Pedagogical Sciences	Kannur
32	Dr. Aneeshya P.	Assistant Professor			

Appendix- B

List of Departments and Affiliated Colleges Selected for the Study

SI. No.	University	Frequency	Departments and Affiliated Colleges	Locality
1	Kerala	111	Department of Education	Thiruvananthapuram
			Govt. College of Teacher Education	Thiruvananthapuram
			Marthophilus Training College	Thiruvananthapuram
			N.S.S. Training College	Pandalam
2	Calicut	110	Department of Education	Calicut
			Govt. College of Teacher Education	Kozhikode
			Farook Training College	Farook
			Institute of Advanced Study in Education	Thrissur
			N.S.S. Training College	Ottapalam
3	Mahatma Gandhi	67	School of Pedagogical Sciences	Kottayam
			St. Joseph's Training College	Kottayam
			Titus II Teachers College	Thiruvalla
			St. Thomas College of Teacher Education	Pala
4	Kannur	26	School of Pedagogical Sciences	Kannur

Draft Form of Mental Health Status Scale

M.H.S. SCALE

Tohid Moradi Sheykhjan & Dr. Rajeswari K.
Government College of Teacher Education,
University of Kerala, Thiruvananthapuram
2016

Dear Respondent,

Some statements related to certain problems that we face in our daily life are given below. Please indicate how far you agree or disagree with each statement. In the response sheet, against the item number of each statement, five choices, **A, B, C, D** and **E** are given.

A denotes Strongly Agree, **B** denotes Agree, **C** denotes Undecided, **D** denotes Disagree, and **E** denotes Strongly Disagree.

Kindly read each statement carefully and indicate your response in the response sheet with a mark. Try to answer **ALL** items. Your responses will be kept confidential and will be used for research purposes only.

Truly Yours,

Tohid Moradi Sheykhjan,
Research Scholar in Education
Mobile: 8113850805
Email: tohid294m@gmail.com

SECTION 1

1. I often worry myself feeling that I am hated by others.

2. I insist that others must accept my opinion.

3. I do not like my weaknesses being pointed out.

4. I do not consider that I am responsible for my mistakes.

5. I often think that I am not responsible for my mistakes

6. I often feel that I am not self – sufficient in certain matters.

7. I cannot make friends with others, by understanding their limitations.

8. While evaluating an action, I consider its negative side.

9. I have a positive attitude about myself.

10. I have a high esteem about myself.

11. I consider criticism as a chance for progress.

12. I will readily accept if someone says that I am not broad –minded.

SECTION 2

1. I like to share my feelings with others.

2. I like to share my happiness with others.

3. I try to trust and be close to others.

4. I often hesitate to share my knowledge with others.

5. Sometimes I feel happy when others are in trouble.

6. I feel that many of the selfish people are able also, and hence they should be respected.

7. I feel that wandering of sick people along public road is a social crime and hence they should be punished.

8. I defend my personal space so others do not come too close.

9. I feel at peace with myself when I have helped others.

10. I like to respect to others as they are.

11. I love my neighbors very much.

12. It is pleasure for me to strain for others.

SECTION 3

1. I am prepared to dedicate my life for a noble cause.

2. When I help others, I derive a lot of mental satisfaction.

3. Obstacles do not stand on my way, while I try for achieving my goals.

4. It is not better to express one's own abilities.

5. I do not like to explain myself to others.

6. I behave in such a way to attract friends.

7. I can like people without having to approve of them.

8. The views of others must be considered.

9. It is important that others views about what I do.

10. It is always necessary that others approve of what I do.

11. It is not good to have foresight about the future.

12. I do not express my sympathy towards the suffering innocent.

SECTION 4

1. When I evaluate myself, I consider my merits as well as demerits.

2. I think the life has a meaning.

3. I am able to understand that the life has purpose.

4. When I am unable to solve a problem, I feel frustrated.

5. I think that a failure is way to grow.

6. After a failure, I can find new methods.

7. I have no goals in my life.

8. I think that facts and moral values do not coincide.

9. I am not able to face a disappointing situation.

10. I do not like the work which needs accuracy.

11. I think that life has no a meaning.

12. I am conscious about the right of others.

SECTION 5

1. I can take appropriate decisions.

2. I am able to make decision to achieve my targets.

3. What I think, cannot be implemented always.

4. I do many things because of the pressure from others.

5. I can work with self – control.

6. I like others working on my behalf.

7. In choosing things, I depend on others.

8. It is not better to think independently.

9. I am able to control myself.

10. I have control on my actions.

11. My actions are always justifiable.

12. I act according to my own will and pleasure.

SECTION 6

1. I can accept my mistakes.

2. I am responsible for my mistakes.

3. I do not fully grasp that happen around me.

4. On my own accord, I do not distort facts.

5. I accepted my reality.

6. I am conscious of my limitations.

7. I do not care for things which are done by others, even if they are good.

8. I would like analyze things realistically.

9. Many people accuse me of day dreaming.

10. I often feel that I am in some other world.

11. I am not responsible for some of the failures which occur in my life.

12. I would be sensible to take care of one ignoring the surroundings.

SECTION 7

1. One must carry out things according to situations.
2. I take initiative to solve the problems of others.
3. I am confident that there will be achievements at any time in my life.
4. My relation with my friends is satisfactory.
5. I do not like to move closely with others.
6. I find it difficult to cope with the new surroundings.
7. I become upset due to repeated failures.
8. I like to work for the welfare of others.
9. I like to solve the problems of others.
10. My words often annoy others.
11. I never try to face difficult problems.
12. I do not like to face with difficult problems of others.

SECTION 8

1. In uncertain times I usually expect the best.
2. I usually expect a bright future in uncertain times.
3. I don't get upset too easily.
4. I feel there is nothing beautiful in this world.
5. I often feel that my future life will be a hell for me.
6. I think that I am Okay.
7. It is easy for me to relax.
8. I always feel that everything will turn right for a harmless person like me.
9. I rarely count on good things happening to me.
10. I am confident that I will have a bright future.
11. Sometimes I feel however much I effort, it will be of no use to me.
12. Even if I get a first step, I can not going to get a next step.

M.H.S. SCALE

Response Sheet

Name: _____ **Age:** _____ **Gender:** ____

Course/Year/College: _____ **Total Score Obtained for (B. Ed.) Course:**

A denotes Strongly Agree, **B** denotes Agree, **C** denotes Undecided, **D** denotes Disagree, **E** denotes Strongly Disagree

Section 1

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 2

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 3

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 4

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 5

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 6

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 7

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

Section 8

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

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Appendix-D

Final Form of Mental Health Status Scale

(M.H.S. Scale)

Tohid Moradi Sheykhjan & Dr. Rajeswari K.
Government College of Teacher Education,
University of Kerala, Thiruvananthapuram
2016

</div>

Dear Respondent,

Some statements related to certain problems that we face in our daily life are given below. Please indicate how far you agree or disagree with each statement. In the response sheet, against the item number of each statement, five choices, **A, B, C, D** and **E** are given.

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Kindly read each statement carefully and indicate your response in the response sheet with a mark. Try to answer **ALL** items. Your responses will be kept confidential and will be used for research purposes only.

<div align="right">

Truly Yours,

Tohid Moradi Sheykhjan,
Research Scholar in Education
Mobile: 8113850805
Email: tohid294m@gmail.com

</div>

SECTION 1

1. I often worry myself feeling that I am hated by others.
2. I insist that others must accept my opinion.
3. I do not like my weaknesses being pointed out.
4. I do not consider that I am responsible for my mistakes.
5. I often feel that I am not self – sufficient in certain matters.
6. I cannot make friends with others, by understanding their limitations.
7. While evaluating an action, I consider its negative side.
8. I have a high esteem about myself.
9. I consider criticism as a chance for progress.
10. I will readily accept if someone says that I am not broad –minded.

SECTION 2

1. I like to share my feelings with others.
2. I try to trust and be close to others.
3. I often hesitate to share my knowledge with others.
4. Sometimes I feel happy when others are in trouble.
5. I feel that many of the selfish people are able also, and hence they should be respected.
6. I feel that wandering of sick people along public road is a social crime and hence they should be punished.
7. I defend my personal space so others do not come too close.
8. I feel at peace with myself when I have helped others.
9. I love my neighbors very much.
10. It is pleasure for me to strain for others.

SECTION 3

1. I am prepared to dedicate my life for a noble cause.

2. When I help others, I derive a lot of mental satisfaction.

3. Obstacles do not stand on my way, while I try for achieving my goals.

4. It is not better to express one's own abilities.

5. I behave in such a way to attract friends.

6. I can like people without having to approve of them.

7. The views of others must be considered.

8. It is always necessary that others approve of what I do.

9. It is not good to have foresight about the future.

10. I do not express my sympathy towards the suffering innocent.

SECTION 4

1. When I evaluate myself, I consider my merits as well as demerits.

2. I think the life has a meaning.

3. When I am unable to solve a problem, I feel frustrated.

4. After a failure, I can find new methods.

5. I have no goals in my life.

6. I think that facts and moral values do not coincide.

7. I am not able to face a disappointing situation.

8. I do not like the work which needs accuracy.

9. I think that life has no a meaning.

10. I am conscious about the right of others.

SECTION 5

1. I can take appropriate decisions.

2. What I think, cannot be implemented always.

3. I do many things because of the pressure from others.

4. I can work with self-control.

5. I like others working on my behalf.

6. In choosing things, I depend on others.

7. It is not better to think independently.

8. I have control on my actions.

9. My actions are always justifiable.

10. I act according to my own will and pleasure.

SECTION 6

1. I can accept my mistakes.

2. I do not fully grasp that happen around me.

3. On my own accord, I do not distort facts.

4. I am conscious of my limitations.

5. I do not care for things which are done by others, even if they are good.

6. I would like analyze things realistically.

7. Many people accuse me of day dreaming.

8. I often feel that I am in some other world.

9. I am not responsible for some of the failures which occur in my life.

10. I would be sensible to take care of one ignoring the surroundings.

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9. My words often annoy others.

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SECTION 8

1. In uncertain times I usually expect the best.

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3. I feel there is nothing beautiful in this world.

4. I often feel that my future life will be a hell for me.

5. It is easy for me to relax.

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7. I rarely count on good things happening to me.

8. I am confident that I will have a bright future.

9. Sometimes I feel however much I effort, it will be of no use to me.

10. Even if I get a first step, I can not going to get a next step.

M.H.S. SCALE

Response Sheet

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Course/Year/College: _____ **Total Score Obtained for (B. Ed.) Course:**

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Section 1

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 2

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 3

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
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7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 4

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 5

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 6

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 7

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Section 8

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10	A	B	C	D	E

Draft Form of General Self-Efficacy Scale

(G.S.E. Scale)

Tohid Moradi Sheykhjan & Dr. Rajeswari K.

Government College of Teacher Education,

University of Kerala, Thiruvananthapuram

2016

Dear Respondent,

I am conducting a study on mental health and self - efficacy as predictors of academic achievement of student teachers in Kerala. Kindly respond to **ALL** the questions on the following pages. It is important that you try to answer **ALL** the questions. Your responses would be kept confidential.

Thank you for your time and consideration.

Truly Yours,

Tohid Moradi Sheykhjan,
Research Scholar in Education
Mobile: 8113850805
Email: tohid294m@gmail.com

GENRAL SELF-EFFICACY SCALE (G.S.E.S)

Direction: To what extent each of the following statements tell about you? Kindly put a check (√) mark on the box that corresponds to your answer.

1 - Not at all true   2 - Hardly True   3 - Moderately True   4 - Exactly True

	STATEMENTS	1	2	3	4
1	When I set important goals for myself, I rarely achieve them.				
2	When I have something unpleasant to do, I stick to it until I finish it.				
3	I can always manage to solve difficult problems if I try hard enough.				
4	I can manage quite well if something look too complicated.				
5	I can still accomplish most of my goals in life, despite many challenges.				
6	If something looks too complicated, I will not even bother to try it.				
7	I feel confident despite my failures.				
8	I believe that, I am able to handle a difficult task.				
9	I feel insecure about my ability to do things.				
10	It is easy for me to stick to my aims and accomplish my goals.				
11	I will be able to successfully overcome difficulties.				
12	I am confident that I could deal efficiently with unexpected events.				
13	Thanks to my resourcefulness, I know how to handle unforeseen situations.				
14	I can solve most problems if I invest the necessary effort.				
15	I can usually find a solution if I invest the necessary effort.				
16	I am confident that I can manage well on many different tasks.				
17	I can remain calm when facing challenges because I can rely on my coping abilities.				
18	When I am confronted with a problem, I can usually find several solutions.				
19	I could deal efficiently with challenges if I am in trouble.				
20	If I am in trouble, I can usually think of something to do.				
21	No matter what comes on my way, I am usually able to handle it.				
22	If I cannot do a job the first time, I keep trying until I can.				
23	I will be able to achieve most of the goals I set for myself.				

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24	When trying something new. I soon give up if I am not initially successful.				
25	When facing difficult tasks, I am certain I will succeed.				
26	In general I think I can achieve outcomes that are important to me.				
27	I believe I can succeed at most task to which I set my mind.				
28	I do not seem to be capable of dealing with most problems that come up in my life.				
29	I avoid trying to learn new things when they look too difficult.				
30	Compared to other people, I can do most tasks very well.				
31	Compared to other people I am initially successful.				
32	Even when things are tough, I can manage quite well.				
33	I can gradually more active, despite the pain.				
34	When unexpected problems occur, I do not handle them very well.				
35	I usually do not try to understand events.				
36	I stay out of situations that might cause an anxiety attack.				
37	I always try to be well informed.				
38	I can set a moderate pace to achieve my life target.				
39	I am not scared of unexpected events.				
40	I will be able to overcome unexpected events.				
41	I attribute my failures to insufficient efforts and deficient understanding.				
42	I am able to overcome obstacles through perseverant efforts.				
43	I am able to overcome the stressful situations.				
44	I never feel haunted by doubts.				
45	I can revise my plan if it is not working to my expectations.				
46	I can succeed at stressful situation.				
47	When I make plans, I am certain I can make them work to achieve my goals.				
48	I am certain that I can revise my plan.				
49	Failure just makes me try harder.				
50	I think failure makes me stronger.				

Appendix- F

Final Form of General Self-Efficacy Scale

(G.S.E. Scale)

Tohid Moradi Sheykhjan & Dr. Rajeswari K.
Government College of Teacher Education,
University of Kerala, Thiruvananthapuram
2016

Dear Respondent,

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	STATEMENTS	1	2	3	4
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2	When I have something unpleasant to do, I stick to it until I finish it.				
3	I can always manage to solve difficult problems if I try hard enough.				
4	I can still accomplish most of my goals in life, despite many challenges.				
5	If something looks too complicated, I will not even bother to try it.				
6	I feel confident despite my failures.				
7	I feel insecure about my ability to do things.				
8	It is easy for me to stick to my aims and accomplish my goals.				
9	I will be able to successfully overcome difficulties.				
10	I am confident that I could deal efficiently with unexpected events.				
11	Thanks to my resourcefulness, I know how to handle unforeseen situations.				
12	I can solve most problems if I invest the necessary effort.				
13	I am confident I can manage well on many different tasks.				
15	When I am confronted with a problem, I can usually find several solutions.				
16	If I am in trouble, I can usually think of something to do.				
17	No matter what comes on my way, I am usually able to handle it.				
18	If I cannot do a job the first time, I keep trying until I can.				
19	I will be able to achieve most of the goals I set for myself.				
20	When trying something new. I soon give up if I am not initially successful.				
21	When facing difficult tasks, I am certain I will succeed.				
22	In general I think I can achieve outcomes that are important to me.				
23	I believe I can succeed at most task to which I set my mind.				

24	I do not seem to be capable of dealing with most problems that come up in my life.				
25	I avoid trying to learn new things when they look too difficult.				
26	Compared to other people, I can do most tasks very well.				
27	Even when things are tough, I can manage quite well.				
28	I can gradually more active, despite the pain.				
29	When unexpected problems occur, I do not handle them very well.				
30	I stay out of situations that might cause an anxiety attack.				
31	I always try to be well informed.				
32	I can set a moderate pace to achieve my life target.				
33	I am not scared of unexpected events.				
34	I attribute my failures to insufficient efforts and deficient understanding.				
35	I am able to overcome obstacles through perseverant efforts.				
36	I am able to overcome the stressful situations.				
37	I never feel haunted by doubts.				
38	I can revise my plan if it is not working to my expectations.				
39	When I make plans, I am certain I can make them work to achieve my goals.				
40	Failure just makes me try harder.				

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