

**EFFECTS OF MENTAL HEALTH ON EDUCATIONAL
OUTCOMES OF STUDENTS AT SECONDARY
SCHOOL LEVEL**

**By
Rehana Rahim**



**NATIONL UNIVERSITY OF MODERN LANGUAGES
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OUTCOMES OF STUDENTS AT SECONDARY
SCHOOL LEVEL**

By

Rehana Rahim

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THESIS/DISSERTATION AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance and recommend the thesis to the Faculty of Social Sciences for acceptance:

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Submitted By: Rehana Rahim

Registration# 1793-MPhil/Edu/F-19

MASTER OF PHILOSOPHY

Degree Name in full

EDUCATION

Name of Discipline

Dr. Farkhanda Tabassum

Name of Research Supervisor

Signature of Research Supervisor

Prof.Dr. Khalid Sultan

Name of Dean (FSS)

Signature of Dean (FSS)

Brig Syed Nadir Ali

Name of Director General

Signature of Director General

Date

AUTHOR'S DECLARATION FORM

I, Rehana Rahim
Daughter of Abdul Rahim
Registration 1793-MPhil/Edu/F-19
Discipline Educational Sciences

Candidate of Master of Philosophy at National University of Modern Languages Islamabad do hereby declare that the thesis Effects of Mental Health on Educational Outcomes of Students at Secondary School Levels submitted by me in the partial fulfillment of MPhil degree in Education is my original work and has not been submitted or published earlier. I also solemnly declare that it shall not be submitted by me for obtaining any other degree from this or any other university or institution in future.

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Name

Acknowledgement

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Rehana Rahim

DEDICATED
TO
MY MOST LOVING PARENTS

Abstract

Thesis title: Effects of Mental Health on Educational Outcomes of Students at Secondary School Level

The current study was carried out to investigate, the “Effects of Mental Health on Educational Outcomes of Students at Secondary School Level”. The major objective of the study is to assess the students’ mental health (depression, anxiety and stress) at the secondary school level. The second objective was to identify the educational outcomes of students at the secondary school level and third objective was to identify the gender-based difference in students’ mental health at secondary school level and the last objective was to analyze the effect of mental health (depression, anxiety and stress) on educational outcomes of students at secondary school level. The Cognitive Behavioral theory of Beck was adopted by the researcher to measure emotional difficulties. The Depression, Anxiety and Stress scale (DASS) scale was developed by Lovibond (1995). The present study was quantitative and descriptive in nature. The population of the current study was 4000 secondary school students of Tehsil Dera Ghazi Khan and the sample size was 414 secondary school students. Simple random sampling technique was used for data collection. The data were analyzed by mean to measure educational outcomes, t-test, percentage and linear regression for its objectives. The findings of the study revealed that there were significant effects of stress on 10th-class secondary school students and female students had more stress level than male students. It was recommended that school administrations may appoint mental health experts and psychologists to help students to deal with their mental health problems and give them awareness about mental health issues.

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CHAPTER 1

INTRODUCTION

1.1 Background of the study

The writing view focuses on the effects of mental health on the educational outcomes of students at the school level. The particular concern of this work was to investigate the effects of mental health on the educational outcomes of students at the secondary school level. Furthermore, this study accesses the gender-based differences in students' mental health at the secondary school level. Mental health problems affect students' academic achievements, for example, loss of concentration and loss of interest in studies. Different studies suggested that mental health problems (depression, anxiety and stress) are associated with lower grades of students (Ahmed & Julius, 2015). Students' educational outcomes depend on their mental health. In the present competitive age, it is reported that the young generation is found more affected by mental health issues. Some of them deal with mental health problems but it is difficult for every student to handle these mental health issues and this leads from normal behaviours towards non-adoptive behaviours like depression, anxiety and stress. It has effects on their decisions, performances and also on their educational grades. This occurs in changes in their physical, biological, and psychological behaviour. Mental health issues increase in school-level students 'and it affects students' academic performance (Sutherland, 2018). This study highlighted the effects of mental health on students physically and mentally. It also changed their behaviour and reactions. However, the current study explores in a different way the mental health effects on their performance in schools. Because its physical, mental and behavioural aspects are already studied in above research.

Hart (2019) explored the college students mental health effects on their performance and motivation, although resilience and social support protect students from this issue. Therefore, results showed that whilst resilience predicted depression and anxiety, but failed to show stress. Resilience is the mediator between depression and academic performance of college students. The previous study was on college level students and the variables were mental health, performance and their motivation level. However, in this study, the researcher has selected secondary school level students and only three variables (depression, anxiety and stress) investigated its impacts on their performance.

However, schools provide marginalized services for student's mental health and expect them to improve their academic performance with the fewer resources provided especially in the context of complicated issues. On the other hand, some schools hire social workers who focus primarily to support mental health issues (Weist, 2012).

Furthermore, a study was conducted on the impacts of mental health issues on the educational performance of students. Results of the study show that there were negative impacts of mental disorders on the educational results of students and females are performing better than males (Orr & Warne, 2016).

Grotanl & Bjerkeset (2019) identified in their research that the life of students may be stressful because of the different social and environmental factors and as a result, they suffer mental health-related issues. Although mental health distress can influence the academic performance of students. They found there was a strong association between symptoms of mental health issues, academic self-efficacy, and study progress.

A study was conducted on the students' emotional and psychological problems. Results were that all over the world about 9 million students are facing emotional and psychological issues in their

educational careers. About 20% of the population experienced, in their life, some kind of psychological and neurological issues for example head pain, stress and depression, and neurological and mental issues. Beck's theory practices learners to use their logical reasoning (Alshareef, 2017).

A study conducted by Bhasin (2010) compared the depression, anxiety, and stress levels of students in the board exams and in school exams. The results of the study showed that those students who were studying in the same school, same faculty and in the same environment had lower levels of depression, anxiety, and stress. Compared to those, students who were giving board exams had higher levels of depression, anxiety as well as stress (Bhasin, 2010). In the previous study the researcher compared the levels of depression, anxiety and stress among students who were giving board exams and others giving exams in the same schools. The researcher compared the exam stress, anxiety and depression under the two environments. However, in the current study the researcher investigated the effects of mental health issues on the educational outcomes of secondary school students.

A study was conducted among certain professional courses such as, medical, engineering, nursing and management students to investigate their stress levels. The conclusion of this study was that professional courses lead to higher stress levels. As these degrees have more competition and the students have to work harder and more concentration is required for these subjects. Instead of other social science subjects which have comparatively less competition and require less hard work (Rehman, 2012).

1.2 Rationale of the study

Mental health is most important and plays a significant role in the educational outcomes of students. Students face challenges in their studies due to their mental health. The purpose of this

study was to investigate the effects of mental health on the educational outcomes of students at the secondary school level. Andrews (2006) detecting and treating mental health disorders at college level students are promising avenues for addressing the population burden of early onset mental health problems. It may give significant benefits to their educational outcomes. There is a need to study these variables at the school level to explore the effects of mental health on educational outcomes. Kadison&DiGeronimo (2004) suggested that the staff and teachers should teach students about complex and serious mental health issues. So, it is essential that the issue of mental health should be investigated at the secondary school level.

A study was conducted in 2020 on female university students to investigate the levels of anxiety, stress and depression they face and they concluded that the female students faced severe mental health problems. They had high levels of anxiety, depression and a higher level of stress that they were facing during the quarantine period. Some reasons were that the females were more concerned about their studies because in Asian regions especially in the Arab region they give females home responsibilities, the same age group of females are considered responsible for their male siblings and they have to take care of them. These factors increase their stress and affect their educational outcomes (Mansour et al, 2018; Shehadeh et al, 2020). So, the researcher selects both, male and female students to highlight the effects of anxiety, depression and stress in our region.

Many students are suffering from mental health disorders, for example, depression and anxiety. Also, reports indicate that many mental health problems cause lack of concentration among students (Wang, 2005). Therefore, it is important to investigate the effects of mental health on students' learning abilities. A way to stay healthy is to educate the students about

mental health problems, build their relationships with other classmates and promote positive health.

In previous studies, variables depression, anxiety, stress, and others were studied with other variables and on different populations. Additionally, interrelationships and comparisons of current study variables were studied at different levels in comparison with other variables. However, the impacts and effects of related study variables were less thoroughly investigated. So, the researcher aimed to find out about the effects of mental health on the educational outcomes of students at the secondary school level. Moreover, mental health included the sub-variables depression, anxiety, and stress.

1.3 Significance of the study

This study helps students to measure the effects of mental health on the educational outcomes of school-level students and encourages them to highlight the issues that they face due to mental health problems. It is also significant for teachers as it encourages them to organize an effective learning environment.

This study will open the ways for other researchers to study the effects of mental health on students' educational outcomes at the secondary school level. This study will help to investigate the effects of mental health on students and how they can be reduced.

This study will be helpful for the teachers in arranging activities for students that may help to improve their mental health. They should be aware of the importance of mental health and its importance to their educational outcomes and that they must avoid the things that may increase their stress.

Educational institutions and other NGOs must arrange seminars and workshops regarding mental health problems and give awareness about them.

This will give awareness to the teachers, parents, and the students themselves, that they should care about their mental health and only then they can perform well in their studies for better educational outcomes.

1.4 Statement of the problem

Students' mental health-related issues have been increasing in the previous years, and because of the competition among students mental health problems have increased in Pakistan. Zada et al. (2021) investigated depression levels in medical students. Depression level negatively affects academic performance of students. Most of the previous research studies were conducted at different education level investigate mental health with different variables; environmental factors, exam stress etc.

In the current study, the researcher carried out this investigation on three leading constructs (depression, anxiety and stress) after having an intense review of related exploration which revealed that students' educational outcomes got impacted by numerous factors and mental health is one of those factors. Therefore, the researcher came up with the decision to conduct this current exploration to find out mental health effects on the educational outcomes of students.

1.5 Objectives of the study

1. To assess the students' mental health (depression, anxiety, and stress) at secondary school level Dera Ghazi Khan.
2. To identify the educational outcomes of students at secondary school level Dera Ghazi Khan.
3. To identify the gender-based difference of students' mental health (depression, anxiety, and stress) at secondary school level Dera Ghazi Khan.
 - 3(a): To compare the gender-based difference in depression level of secondary school students at Dera Ghazi Khan.
 - 3(b): To compare the gender-based difference in anxiety level of secondary school students at Dera Ghazi Khan
 - 3(c): To compare the gender-based difference in stress level of secondary school students at Dera Ghazi Khan.
4. To analyse the effect of mental health (depression, anxiety, and stress) on educational outcomes of students at secondary school level.
 - 4(a): To analyse the effect of depression on educational outcomes of students at secondary school level of Dera Ghazi Khan.
 - 4(b): To analyse the effect of anxiety on educational outcomes of students at secondary school level of Dera Ghazi Khan.
 - 4(c): To analyse the effect of stress on educational outcomes of students at secondary school level of Dera Ghazi Khan.

1.6 Hypotheses of the study

H01: There is no significant gender base difference among students' mental health (Depression, anxiety and stress) at the secondary school level, Dera Ghazi Khan.

H01a: There is no significant gender base difference in the depression level of secondary school students at Dera Ghazi Khan.

H01b: There is no significant gender base difference in the anxiety level of secondary school students at Dera Ghazi Khan.

H01c: There is no significant gender base difference in the stress level of secondary school students at Dera Ghazi Khan.

H02: There is no significant effect of students' mental health on the educational outcomes at the secondary school level, Dera Ghazi Khan.

H02 (a): There is no significant effect of depression on the educational outcomes of students at the secondary school level.

H02 (b): There is no significant effect of anxiety on the educational outcomes of students at the secondary school level.

H02 (c): There is no significant effect of stress on the educational outcomes of students at the secondary school level.

1.7 Delimitations of the study

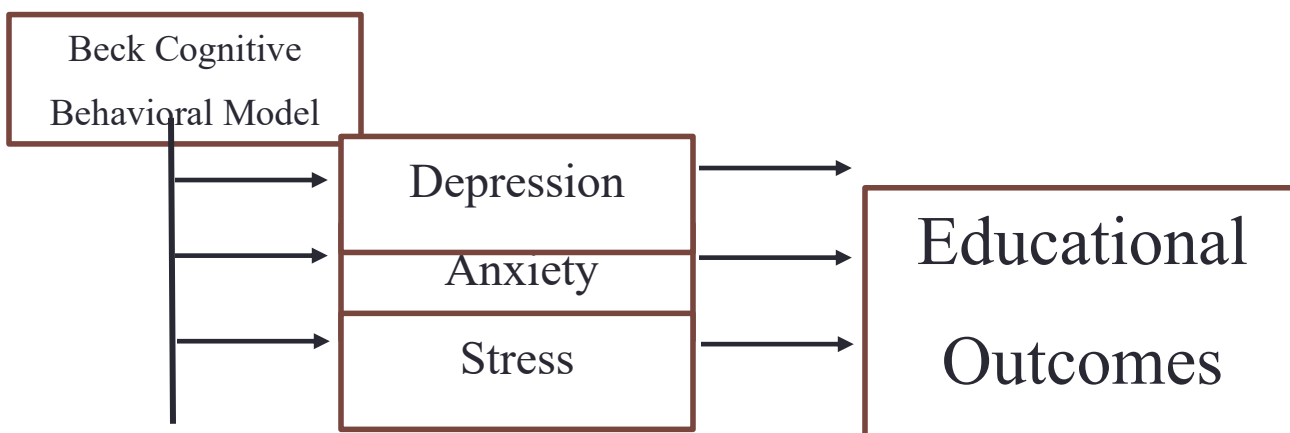
The prime focus of the present study was to investigate the effects of mental health on the educational outcomes of students at the secondary school level thereby the research was delimited to:

1. This research is delimited to only 10th-class students of Dera Ghazi Khan.
2. This study is limited to the public sector secondary schools of Dera Ghazi Khan.

3. The researcher used only a questionnaire for data collection.
4. Only Tehsil Dera Ghazi Khan's students are the population of the study.
5. This study is limited to Girls and Boys at the secondary school level.
6. Study was delimited to the mental health factors: depression, anxiety and stress.

1.8 Conceptual framework

The conceptual framework comprises the general perception or a source of guidance for the research study. Hence, for this research, the theme is in line with Beck's Cognitive Theory. According to Beck's Cognitive Theory of depression, stress and anxiety, students at their adult age face challenges with new forms of stress and new social demands. Aaron T. Beck in the 1960s proposed the cognitive behavioral theory consisting of three constructs including depression, anxiety and stress.



(Aaron T. Beck & Ahmed et.al, 2018).

Depression is a serious health disorder and it can affect at any stage of life that results in feeling sad, and isolating themselves, and that person loses interest in activities in which they took part in before the depression. This occurs in people of all ages across all world regions.

However, adolescence to early adulthood are the most common age and females are affected two times their male counterparts. Most natural science students have been seen as more stressed because of their difficult coursework and competition in their disciplines (Naseem,2017). Students described that hard work increases their anxiety but it is not related to cognitive beliefs, it is related to behavior of the mind and a process (Caselli et.al,2018). Therefore, the adaptation of this framework was found to be most appropriate for the current study for assessing these variables (depression, anxiety and stress).

Operational definitions

Operational definitions of the variables to help define all the variables clearly. Furthermore, it also helps readers to convey the accurate meanings that the researcher wants to deliver. According to the title, there are some operational definitions of independent variables (sub-variables) and dependent variables in this thesis work. There is the independent variable mental health which has sub-variables; depression, anxiety and stress and the dependent variable is educational outcomes in the present thesis work.

1.9.1 Mental health

In the present thesis work, mental health is the independent variable. Mental health is the state of wellbeing in which individual performs normally and handle normal problems of their life but if problems increased it leads towards negative behaviors. It effects mental health and creates problems for example: anxiety disorders, behavioral and emotional disorders in children, bipolar affective disorder, depression, stress, obsessive compulsive disorder. The study was delimited to depression, anxiety and stress.

Three sub-variables, depression, anxiety, and stress. The researcher investigated students' mental health (depression, anxiety, stress) and at the same time duration compared respondents' pre-board exam scores.

1.9.2 Stress

Stress is described as a frustrating condition, there are many factors of stress and the scholar in the current study investigated the effects of stress on educational outcomes because of excessive workload at school which reduce concentration, cause loss of interest in studies and fear of failure.

1.9.3 Anxiety

Anxiety is a feeling of fear, and uneasiness, it might cause sweating, feeling restless, and fast heartbeat. Many students suffer from anxiety problems. It is described as fear or anxiety to give a presentation in front of the class and it refers to some kinds of phobia, for example, exam phobia, increasing heartbeat, sweating in hands and panic disorders. Researchers investigate its effects on students' educational outcomes at the secondary school level.

1.9.4 Depression

Depression is a serious mental illness that causes continual sad behavior, feelings of meaningless and loss of interest in all activities. It leads towards isolation, suicidal behaviors and long-time depression has caused mental health disorders. Most secondary school students face these kinds of mental issues, and they may affect their academics. Scholars investigated the effects of depression on students' educational outcomes.

1.9.5 Educational outcomes

In the present study, researcher takes educational outcomes as the dependent variable. The researcher investigated mental health effects on students' educational outcomes of session 2021 at the same time. For this purpose researcher measure 9th-class students' pre-board exams of the same time duration when mental health was investigated through the DASS-42 questionnaire. It helps to find out the accurate results of mental health and its effect on secondary school students' results. Their marks were converted into percentages and given coding for data analysis in SPSS.

1.11 Research Methodology

The methodology research part consists of research design, population of research, sample size, sampling technique in research, the instrument of research, data collection and data analysis. As for as the research design is related to the present study, which followed a quantitative research paradigm. The study comprises four variables, depression, anxiety, stress, and the educational outcomes of students.

1.11.1 Research design

Research design is a framework that explains the process of research and how it will be done. Therefore, the research design of the current study also included the appropriate methodology, selection of population and data analysis technique, clear objectives, data collection source, statistical analysis and ethical issues.

1.11.2 Population of the study

All the girls and boys secondary school students of Dera Ghazi Khan Tehsil are considered the population of the study. Moreover, a research questionnaire was distributed to the 10th-class students of Tehsil Dera Ghazi Khan. To carry out this research, the researcher selected 20% population from the total population of the secondary schools of Tehsil Dera Ghazi Khan. There was a total of 54 secondary schools. There were 28 Boys and 26 Girls' secondary schools in Dera Ghazi Khan. The list of the 54 secondary schools of Tehsil Dera Ghazi Khan is provided in the Annexure.

1.11.3 Sample size

In the research work, there has been a great value in the selection of sample size. Gay et al (2012) explain the sample that is a group of individuals, items and events that are representatives of a large group population. It helps researchers more in the quantitative studies in making interpretations for a large group population. For this purpose, it is necessary for the researcher to select the sample size carefully and appropriately. In the current study, the sample size explained by Cohen, Minion and Morrison (2007, 2018) suggested various web sites for sample size calculation.

Sample size	Girls	Boys	Total
Number of schools	6	5	11
Number of students	199	201	400

Total of eleven schools were selected for this study, 6 girls and 5 boys' secondary schools. From the girls' school's 199 students and from boys' school's 201 students were chosen as a sample size.

1.11.4 Research tool

The study was conducted on students for investigating their mental health. This tool is used for investigating the levels of depression, anxiety, and stress in secondary school students. Moreover, the results of students' pre-board exams were taken at the same time.

For the current study, the researcher used a "Combined Depression, Anxiety, and Stress Scale (DASS-42; Lovibond)" closed-ended questionnaire for data collection. Which has a total of 42 items, with variables as; depression, anxiety and stress, and each variable has 14 items. Which the researcher used for data collection. The design of the depression, anxiety and stress scale (DASS) explains the results that are between mild, moderate and severe. Respondents who were between mild and moderate are considered normal, however, those who were near severe needed professional help and it is an alarming and worrying situation for them. In tool validation, experts suggested adopting the tool without any change.

The Depression, Anxiety and Stress scale (DASS) scale was developed by Lovibond (1995) and in a recent research study used by Nasar Ahmad (Ahmad et al,2021).Then scholars adopted the

questionnaire (DASS) Depression, Anxiety and Stress scale. The statements of the questionnaire were rated on a 5-point Likert scale. The responses were coded as 1 to 5 from strongly disagree to disagree, neutral, agree and strongly agree. The questionnaire consists of 2 parts. The first part is descriptive statistics which includes information on age, gender, name of the school and educational outcomes. The second part of the questionnaire is related to questions about depression, anxiety and stress. With a total of 42 items to investigate the impacts of mental health on the educational outcomes of secondary school students of Dera Ghazi Khan.

The research study on mental health gave the results that the levels of depression, anxiety and stress were lower when those students were studying at the same school, with the same faculty and in the same environment. Compared to those, students who were giving board exams had higher levels of depression, anxiety as well as stress (Bhasin, 2010).

1.11.5 Sampling techniques

The researcher found a simple random sampling technique more appropriate for the collection of data. It is a type of probability sampling. It is the basic technique where a large group of the population was chosen and each individual had an equal chance to be chosen in the sample. By the lottery method of simple random sampling technique, the researcher chose the desired sample size and randomly selected the slips and collected data from the chosen schools. Gay and Mills (2012) explained that for quantitative research 10 to 20% of the sample is representative which was 11 schools in number. From the selected schools, the researcher collected data by using a simple random sampling technique. Through this, the researcher selected 10% of the sample size which was 400 out of the 4000 secondary school students of Tehsil Dera Ghazi Khan.

1.12 Summary

The researcher will divide the work into five chapters. which are accordingly, the first one is Introduction, 2nd literature review, 3rd is the research methodology, 4th is data analysis and data interpretation and last the 5th is conclusion, and recommendations will be at the end. After these five chapters' references and appendices will be included. Moreover, in the end, references and appendices are given.

Chapter 2

Literature Review

2.1 Mental Health

There are worldwide more than three million people facing mental health disorders and that ratio will be doubled in the coming years. These mental health problems mostly affect secondary school and college students. A study was conducted on school and college students' mental health problems and their impacts on the student's academic performance. The results showed that there were thirty percent of higher secondary students and college students facing mental health problems, another report revealed that sixty percent of students had mental health issues repeatedly over two years, and those students experienced negative effects on their education who were facing problems regarding mental health (Auerbach,2018).

Study was conducted to analyze the mental health problems of secondary school students and investigate their root causes. The first leading cause was the academic stress on them, it had long-lasting effects on their health and also effects on their social circle, and ruined their life and personality. Most of them were not emotionally strong to overcome those problems and they become stressed. School administrations should provide them with awareness about mental health problems and counselling centres(Katelyn,2020).

A study was conducted on students to investigate their levels of depression. Unfortunately, the maximum number of students were found depressed and their performance in academics was not good. Additionally, there are more than 100 studies done in Asia on the mental health of students at different educational levels. The finding of these studies showed that there were mental health disorders approximately of 26% from the one lac seventy thousand respondents most of whom were at the age of 15 years. Hence, there were 26% of students

affected by different kinds of mental health issues, like depression, anxiety and stress. Moreover, 6.4% of the suicidal behaviour reported in south Asia, there was not any significant difference that had been seen in this ratio in the developing countries and the developed countries (Naveed,2020).

The research found that mental health issues started at the age of 14 and above it. At this age, they are not emotionally stable (Vidourek, 2012). Psychological conditions in which an individual feels the strain in their mind, or some kind of fear, badly impacts their confidence, remain un-happy and feel aimless and have less power to deal with common problems (Association, 2015).

A study was conducted in 2017 to identify the mental health of the students and the results were alarming that every one person out of ten was facing issues related to mental health, anxiety and depression. It was an alarming situation that every 10 persons out of 100 were facing mental health issues. (Ritchie,2018).

According to the WHO study, overall 20% of countries have people facing mental health disorders. Mental health issues increase rapidly in adolescence, and there were many higher secondary students and college students facing mental health problems, another report revealed 60 per cent of students having mental health issues repeatedly over two years and those students, who experienced negative effects on their education were facing problems of mental health (Hart, 2019).

Therefore, various studies had been found on students' behavior and their grades, this study had been done in 2020 and targets the child's mental health, the researcher got data from primary and secondary school students. Report of primary students assessed by their parents although from other student researchers get their self-report. For assessing educational reports,

the researcher coordinated with their teachers for getting educational reports. The purpose was to find out the progress between students' behavior and their grades along with different developmental phases. The conclusion of this study was that behavioral problems at an early age became the reason for lower grades (Agnafors, 2020).

The study was conducted on which were the impacts of depression and anxiety on students' educational results. Moreover, the results of the study showed that there are not any positive impacts of the mental health on the educational results of students, furthermore, females perform better than the males. One another study found that memory and depression had negative effects, or a relationship, with the academic achievements of adolescents. Negativity and worrying thoughts generate due to anxiety disorder and these negative thoughts generate gradually because of our beliefs, and these are symptoms of depressive moods, to treat them properly, cognitive therapy is involved in this treatment of depressive symptoms. It had been seen that cognitive therapy is a major treatment of drugs mostly, and it helps adolescents to the treatment of the depression in them and also the anxiety (Akinsola, 2013).

A study was conducted in Norway to investigate the mental disturbance of university students and their performance in academics. Through the survey, the researcher reached out to the respondents and analyzed the mental disturbance and its effects on university students in Norway. The researcher concluded the study with that approximately thirty per cent of students had a higher level of mental disturbance. It was a serious situation for the students and the researcher suggested that the university administration should provide professional help by hiring professional counsellors at university for the students (Grotan1, 2019).

Many studies have been done in the medical field by Alharbi (2019) investigating in Arab region about depression and anxiety among high school students and the results found that

females of age 17 to 19 face higher levels of depression and anxiety as compared to male students of the same age. The first leading cause of the total disease is Burdon and it affects repeatedly and it never stops quickly. It had long-lasting effects on their health and also affects their social circle, and ruins an individual's life and personality, it reduces their abilities to cope with daily routine problems. Schools are the best place to provide children with good mental health and counselling. Children spend their most precious time in school (Alharbi, 2019)

A study was conducted on students' mental health and its effects on their academic performance. During school, utilizing remarkable information is very important, and also state-funded colleges. This paper centers around three of the most widely recognized kinds of mental problems among teenagers and adults: depression, anxiety, stress, and diet problems. Furthermore, some studies found an interface between the review information on emotional well-being to academic measures, gathered from the college regulations. That was the primary examination, as far as anyone who was concerned, it looks at how psychological well-being predicts GPA and exiting in an irregular example of understudies. Results found that the main reason for dropping out is low academic results. These are the effects of nervousness (depression), proper meal deficiency and early education. Discouragement, additionally, appears to connect with tension. The relationship among students and their results is especially found positive for undergraduates who were affected by depression and anxiety, aimlessness, negative thoughts about the future and less interest in things for example, going outside, and enjoying with friends. Paradoxically, negative influence as such (feeling discouraged or sad) wasn't freely connected with bad results (Eisenberg, 2009).

A study was conducted on mental health issues; this study revealed that in every ten people, one is suffering from mental health problems. Most of them are affected by depression and stress. At

last, impacts (inside individual) relapses of GPA rely on emotional well-being, factors utilizing the longitudinal example, depressive thoughts have negative impacts on grades, nutrition also impacts on students' grades. The findings of the study elaborate the investigation of the relationship between emotional wellness also educational results of school, as opposed to a causal investigation. Moreover, the causal impact of psychological wellness on school achievement probably needs a sudden preliminary psychological session that gathers definite education results (Saini, 2010).

However, the 2016 study on high schools revealed that the importance of the adolescent stage is to consider it as the stage of success and during high school, adults should achieve different kinds of skills which help them in their practical life. Through these skills, adults can live a successful life and these skills help to develop their personalities. Although the success of school students is based on their inner motivation and environmental factors, it also leaves its effects on them. There is inequality in the United States of America's educational system, for example, most opportunities are given to American students instead of others. The ratio is approximately 15% to 5%. Latino students have a very low percentage of enrolment in college four-year education, they provide more aid, and funding to the white rather than others, so that is considered as the reason behind their lower ratio in college and at higher education levels (WHITE, 2016).

Therefore, various studies have been found on students' behavior and their grades, this study was done in 2019 and targets the child's mental health, the researcher got the data from primary and secondary school students. The report of primary students was assessed by their parents although other student researchers get their self-report. For assessing the educational report, the researcher coordinated with their teachers to get the educational reports. The purpose

was to find out the progress between students' behavior and their grades along with different developmental phases. The conclusion of this study was that behavioral problems at an early age became the reason for lower grades (Bilgel, 2019).

The study was conducted on the impacts of depression on students' educational results. The results of the study showed that there are not any positive impacts on the mental health and educational results of students, furthermore, females perform better than males. One another study found that memory and depression have negative effects on the relationship with the academic achievements of adolescents. Negative and worrying thoughts generate due to anxiety disorder, and these negative thoughts generate gradually because of our beliefs, and these are the symptoms of depressive moods, they need to be treated properly, and cognitive therapy is involved in this treatment of depressive symptoms. There is seen that cognitive therapy is a major treatment of drug mostly, and it help adolescents to treat their depression and is also good for anxiety treatment (Nwajei, 2013).

A study was conducted on the correlation between mental health and academic results of college-level students. A college education is a more important part student's life, they decide their future field at this stage which becomes their future occupation and source of earnings. Two to three per cent of high school graduates can attend college, and those who attend college, from them, mostly leave during college and do not complete their college studies. The ratio of college graduate students is 50% and from these fifty per cent, twelve to eighteen per cent of them are mostly black students. There can be several factors in this ratio; maybe some kind of financial aid provided to them, and also maybe a reason for their mental health, and how the ratio decreases between high school and college graduate students. Mostly mental health affects the age of 18-24. This is the result of a connection between college students and their mental health

and its relationship. College students experience a burden on them, and their social network also becomes vast at the college level, these things increase stress on them and how to manage all things and activities (Hussein, 2015).

A study was conducted in Iran for investigating the relationship between psychological state and performance in education, for this purpose researchers created a questionnaire having components of psychological state and chose two groups of equal numbers, a hundred. One group was active in co-curricular activities and the other was not active in different activities and games, unexpected results were found that there were not any effects of performance on their psychological state and vice versa. Further, the researcher concluded that if students are strong in their level of a psychological state of mind, then it will affect their performance positively (Bostani, 2014).

A study was conducted in British to find out the negative behaviors of students and their effects on them. This study was analyzed by Cognitive behavioral theory to identify the effects of negative thoughts, behaviors and negative feelings among students. Through Beck's cognitive theory, researchers provide them with therapy and reduced the effects of negative thoughts (Bruch, 2015).

Hebb's theory of Arousal elaborates on the effects of depression on the educational outcomes of students. This theory explains that low arousal leads towards changes in moods and a high level of arousal leads towards stress and depression. That was a u-shaped function between stress and performance. Both high and low level of arousal is considered to affect performance and it has been seen low performance in both levels, and moderate level increase outcomes and arousal seem more emotional attacks. Most works have been done on the relationship between stress, depression and its effects on grades.

Behere&Talib (2012) investigates that the level of stress in students in competitive disciplines such as medical, engineering, nursing and management courses, is high compared to the social sciences disciplines. Those students were mentally upset and more stressed because of hard work, and full concentration and they have to spend more time on their studies. So, they do not enjoy themselves like other students and have a lack of involvement in co-curricular activities and games. These things increase their depression.

2.2 Effects of Mental health all over the world

Psychological problems badly affect individuals, their minds and body. Like feeling low, loss of sleep or excessive sleep, loss of appetite or excessive aptitude, feelings of worthlessness and also feelings of guilt (WHO, 2018).

Researchers who investigated the university level student's mental health and their studies concluded that there was a clear difference between girls and boys who were participants in the study. Boys have more positive mental health as compared to females. A number of students suffer from stress, anxiety and depression and those affect their educational outcomes. In many studies the ratio of approximately 2015 to 2050 worlds more mature grownups; the ratio is about 12% to 22 % were affected by mental health issues (Uzma, 2017).

Studies conducted on neurological issues and phobias related all over the world reported that all over the world, 5 to 7% of the population faces the neurological type of issues. Depression and anxiety affect approximately 3% population all over the world and 1% population of the world faces substance issues at the age of 60 and more (WHO, 2017). Less awareness about mental health problems and people feel hesitation to visit a psychiatrist. These issues lead to cardiac issues and blood pressure problems.

A study to find out the mental health of school students and factors affecting students' mental health. In 2016, this study was conducted on school students, they spent 40% of their time without sleeping. Spending time doing different activities, taking classes and lack of sleep affects badly on their mind and body. If we estimate how much time students remain to awaken it would be 11 years of their life without sleeping. It weakens the mind because the mind needs rest to perform perfectly if proper rest is not provided to the mind it harms mental health and creates mental illness (Dunn, 2016). So proper rest and sleep are necessary for the students and for every individual to spend a healthy life.

Multiple studies were done on the comparison of the mental health of the students and their academic achievements. Mental health issues surely affect students' performance in life and also in academics. Moreover, social problems, and the environment where students live in, those surroundings directly or indirectly affect the student's health (Galanti, 2016).

The mental health of students is one of the most important concerns and mental health affects the behaviour of students, their activities, and habits and also their educational outcomes. One of the significant determinants of psychological well-being is the level of stress. This study was conducted at the secondary school level, to highlight the challenges they face mostly at this level. Most of them faced academic pressure and academic stress. Mostly during the assessment period, they experienced prominent anxiety and fear of examination. That kind of fear caused anxiety among them. This stress and anxiety affect most secondary school students and cause poor performance, and some of them leave their studies. Most school students are unable to complete their studies due to stress. In Pakistan, it was revealed that 70% of undergraduate students had test anxiety. It affects their educational outcomes (Safeer, 2019).

Moreover, a correlational study was conducted on college students to investigate the relationship between their mental health and their educational performance. A college education is becoming a more important part of the human capital, without college studies, humans considerably cannot earn more and also never accomplish their basic needs. Two to three per cent of high school graduates can attend college, and those who attend college, from them, mostly leave during college and do not complete their college studies. The ratio of college graduate students is 50% and from these fifty per cent, twelve to eighteen per cent of them are mostly black students. Mostly mental health affects the age of 18-24. This is the result of a connection between college students and their mental health and its relationship. College students experience a burden on them, and their social network also becomes vast at the college level, these things increase stress on them and how to manage all things and activities (Archer et.al,2015).

A study was conducted on students' mental health and its effects on their academic performance. During school, utilizing remarkable information is very important, and also state-funded colleges. This paper centers on three of the most widely recognized kinds of mental problems among teenagers and adults: depression, anxiety, stress, and diet problems. Furthermore, some studies found an interface between the review information on emotional well-being to academic measures, gathered from the college regulations. That was the primary examination, as far as anyone was concerned, it looks at how psychological well-being predicts GPA and exiting in an irregular example of understudies. Results found that the main reason for dropping out is low academic results. These are the effects of nervousness (depression), proper meal deficiency and early education. Discouragement, additionally, appears to connect with tension. The relationship among students and their results is especially found positive for

undergraduates who were affected by depression and anxiety, aimlessness, negative thoughts about the future and less interest in things, for example, going outside, and enjoying with friends. The findings of the study elaborate the investigation of the relationship between emotional wellness also educational results of school, as opposed to a causal investigation. Moreover, the causal impact of psychological wellness on school achievement probably needs a sudden preliminary psychological session that gathers definite education results (Eisenberg, 2009).

Berzin (2012) reported that in an investigation of mental health awareness in the teaching staff, they found that there was a less professional experience of school teachers and they did not get any training or short courses for counselling the students. Furthermore, there were not any kind of facilities to provide students with sessions about awareness of mental health and emotional intelligence. During their exams, some of them become more stressed and panicked. As a result, they perform badly in their exams and their grades fall. Because of academic stress and exam phobia among them. So, the teaching staff is not able to judge the behaviour of the students and their interactions with other fellows. Moreover, researchers reported that teachers were unprepared and did not have any kind of information or training related to mental health issues, so these problems were increasing day by day (Berzin, 2012).

A study of mental health problems of students highlighted that the teaching staff wanted to help those students who were suffering from mental health disorders. They preferred proper health experts and mental health professionals to help those students. The school administrations should have appointed mental health experts to help those students. This study gave information about the dangerous condition of students' mental health, which was gradually declining. Mental health studies and the social behaviour of the students should be focused on. School administration should work on school students' cognitive development, their social behaviour,

and their relationships with peers, teachers and parents. It would help mental health professionals to identify the problems basic and help them to eradicate them (Atkins, 2010).

During the development of adults from childhood to adolescents, many changes occur in their lives, such as social emotional changes, cognitive changes and biological changes. The ages of adulthood vary from culture to culture and are also different in different regions, in the United States of America, the age of adolescence starts from 13 to 14 and ends between 18 and 22. That time period of human life is very important and sensitive, they face many difficulties and problems during this adolescence age, and responsibilities are also put on them by parents and society which makes them good decision-makers and responsible, as they try to find their good profession to spend a respectable life. Santrock (2007) defines these adolescent years for humans as very important years of their lives to set their goals and to find a good profession of earning for them during this stage of their life (Santrock,2007).

Furthermore, a study showed the effects of mental health and suggested that schools should give access and facilities to their students for their social, mental, behavioural and developmental needs. High school teachers and administrators have to provide counsellors in their schools to help high school students. Moreover, mental health services in schools are ordered to improve for students with limited resources to enhance educational outcomes. For their mental illness disorders because of poverty, family issues, abuse and social issues (Weist,2012). In most schools, social workers focus on students' mental health issues and help them. In some areas, where schools, families, and communities work together and provide their students with mental health treatments.

Hebb's theory of Arousal elaborates on the effects of depression on the educational outcomes of students. This theory explains that low arousal leads towards changes in

moods and a high level of arousal leads towards stress and depression. That was a u-shaped function between stress and performance. Both high and low level of arousal is considered to affect performance and it has been seen low performance in both levels, and moderate level increase outcomes and arousal seem more emotional attacks. Most works have been done on the relationship between stress, depression, and its effects on grades. There is a study by Johnson (2002) that explores that the anxiety of students has negative impacts on their academic performances. Another study by Hanafi (2008) found that a test of anxiety and depression among university students results in a negative relationship between depressive conditions on the grades of university-level students. In a 2010 study where Rana & Mahmood found a connection between depressive students and their academic results at the university level (Esther, 2013).

At the end of 2019 covid entered our lives and all over the world threatening the health of people, and numerous people reached pandemic status. The outbreak of this virus started in December 2019 in the Wuhan province of China (Wang et al. 2020). The outbreak of this virus spread stress all over the world and disturbed the mental health of people of all ages and professions. Because it disturbed the normal routine life of the people, isolation impacts bad effects on their mental health and caused issues like stress and anxiety. In 2020 it was declared that covid-19 has affected near to five million people all over the world.

The pandemic situation was more stressful for everyone because of the high ratio of death rate and factors that were associated with it such as disturbance in private businesses, unemployment, stress and anxiety because of lockdowns in different countries at different periods and its effects on the global level. Students faced issues because of virtual learning, most of them do not facilitate online classes and face difficulties because of it.

It had been seen the effects of covid-19 are not only medical but also effects the population socially, emotionally, and also psychologically. Wearing masks and quarantine increased mental health issues, sleeping disturbance, stress and anxiety. Because of this pandemic, many students are affected by psychological issues, that effects learners not only in academics but also their personality, most countries start virtual learning which affects children psychologically.

In Covid 19 lockdown period affects many people mentally. It had affected some elements of mental health such as independence, capability and interdependence. During isolation, being cut off from their social activities and their routine. Study on the psychological impacts of lockdown and quarantine on people had been studied. Recommended how its impacts can be reduced on people for those who were in quarantine or lockdown. They faced distress, grief, and emotionlessness, sleeping disorders, mood swings, depressive thoughts and emotional disturbance. Many shreds of evidence prove that those symptoms can be for a long period (Brooks,2020).

In the present era, stress is affecting a higher level of the world population, it affects people's minds and body also, and it is not only limited to adults, it affects on all age group people, mostly children are also affected by it. At this age, stress works as a catalyst for increasing stress among students. No doubt stress had become a hindrance to academic performance. At some stages stress is good for people, there are two types of stress, positive and negative stress. Positive stress helps to sharpen the mind and encourages us toward change and growth. It depends, on how humans see the world. These natural reactions, allow the body and mind to handle these challenges like increasing blood pressure and heart rate. It affects differently on every individual at their different life stages, nevertheless of situation, age and

gender (Currie,2016). However, when stress remains for a long period, it becomes a health risk. Another study shows that memory and depression have negative effects on the relationship between the academic achievements of adolescents. Negative thoughts about the future and present cause anxiety disorder and depression in students. These are symptoms of depressive mood and need to treat them properly. Cognitive therapy is involved in this treatment of depressive symptoms. It is seen that major treatment of cognitive therapy important for them and it is helpful to treat depression and anxiety in students.

In Egypt, a study conducted on 988 college students, detailed that 71% of the students had a moderate degree of anxiety and depression. In Pakistan, a study was conducted on undergraduate students and the results were that 70% of students face anxiety and depression in Karachi, with a lower level of depression among undergraduate students and a higher level of stress which affects their educational outcomes or academic performance. The objective of the study was to highlight the effects of depressive thoughts, anxiety and stress on school and college students to accomplish their education and investigate the gender-based difference among them (Safeer, 2019).

The right amount of stress is useful and it improves performance and health because it motivates students to hard work, and improves concentration for studies. Though stressed students could not work effectively (Gale,2018). It had been seen that stressed students work more and give an effective performance. It had been heard that most students do not concentrate on learning, but there are many consultants, life coaches, and trainers who assist others in attaining it. Moreover, stress management helps students to be committed to their performance in academics and also develop their relations with their fellows.

In a survey conducted in 2020, 63 per cent of students cited mental health associated with many other factors but the most important one is mostly academic stress. Most college students faced the stress of their lives. A present survey conducted in 2020, gave results that there were sixty-three per cent of adults facing health-related problems (stress & anxiety). One of the sources of stress for students were academic stress and academic pressure. It considers major stress for students and it impacts on academic achievements of the students. They could not ably perform well because of academic pressure (Albers, 2017).

Different studies conducted in United States of America universities highlighted that there was a higher rate of psychological disorders instead of other diseases (Michaud,2006). This study points out that emotional and psychological problems need more concern instead of physical problems. Emotional issues were increasing day by day and there were many reasons for these problems, some were unemployment, poverty, and technology was also affected psychologically. Mostly youngsters were affected by this more because those were at the age where responsibilities were increased, needs also increased in this age so they were affected more than old age people and children.

A study was conducted on parents' mental health problems and their impacts on their children. The study concluded that high chances of mental health problems in children and in their growth and development occur as their parents suffer from mental health-related issues. In a study of thousands of middle-class children and their mothers by Wu et al, (2019), they analysed that mothers who experienced mental health issues, and severe depression, give their children less support emotionally during the development time period of children. This study highlighted that the 1 to 16 year of age children have less cognitive abilities on the frequency of their mother's

depression level. So, this study revealed that the mental health problems of mothers may cause hindrance in their children's cognitive abilities (Gjrede et al, 2019).

Teachers and students both face problems of anxiety and stress. No doubt stress management had a great impact on students' commitment towards their academic performance. The relationship of students with their fellow students positively affects them and they study more efficiently (Albers et al, 2017). Relationships with their fellows motivated them and gave them encouragement towards their studies. However, academic stress and less teacher-student interaction made them more anxious. Even though educational or academic stress effects negatively on students' educational outcomes and in result they get bad remarks in their academics. It would not only be in the institution but outside the institution and at-home self-studies are also included. If students feel fear for their teacher, the institution could not provide them with a friendly environment, then it affects their minds, and studying under pressure could not give good results. so, a friendly environment and good interactions with teachers and among students are of utmost importance for good academic performance.

A significant factor that affects the student's ability during the educational period of the student's life, was academic encouragement (Jennings, 2009). Academic encouragement means the energy and power to study more and get good remarks on academic performance while facing difficulties and challenges in the institute or a student's life. Besides this, students are encouraged by institutions and motivated towards getting better results in their academic performance. It shows that active physical and mental strength (capacity) is important for survival and meaningful existence. When students study instinctively then they do not feel any kind of tiredness from that work but they feel positive energy and strength to do that work more efficiently.

Therefore, the life of academics had relationships between self-efficacy, and empowerment to face the challenges, of experiencing anxiety and depression. Students face all these challenges and with a sense of responsibility to deal with these problems. As a result, they perform well in academics and get better success in academic outcomes (Folkman, 2015).

The book of Cohen describes 1st-grade students' behaviors by assessing different tests from them, for example, ability tests and intelligence tests. It was seen that 1st-grade students feel stress from giving tests and fear of tests and only a few of them were not feeling stress. That fear results in poor performance in their academics and increases as the level of their educational grade increases. The reason that some students attempt suicide is because of fear and stress about their marks in their academics. Institutes should train them from 1st grade to overcome that fear of tests and examinations (Cohen, 1980).

Mental health is a kind of disorder that affects emotions, and control of behaviour these occur in the early stages of life and they may have been seen in many states through different studies. Mental health disorders lead to death in half of one per cent of persons (Hyman S, 2016). Different studies, which were conducted in America, highlighted that there is a higher rate of psychological disorders instead of other diseases (Michaud et al, 2006). This study points out those emotional and psychological problems need more concern instead of physical problems. Emotional issues are increasing day by day and there are many reasons for these problems, some are due to unemployment, poverty and technology is also affected psychologically. Mostly adults are affected by this because they are at the age of responsibilities and are increased usually, and their needs are also increased at this age, so they are affected more than old age people and children.

Another study finds out that stress, depressive thoughts, and tension have a relationship with academic outcomes. This study has been done on college students in Michigan (USA), the study also elaborates that low grades are also one of the reasons for students' emotional instability. Different kind of negative behaviour also generates psychological problems and mentions that poor diet also affects the results of college students. The results of this study elaborate on the importance of emotional and psychological health, and its impacts on adult students and their academic grades are also affected by their psychological health (Daniel,2009).

Therefore, various studies had been found on students' behaviour and their grades, this study had been done in 2020 and targets the child's mental health, the researcher got data from primary and secondary school students. Report of primary students assessed by their parents although other student researchers get their self-report. For assessing educational reports, the researcher coordinated with their teachers for getting educational reports. The purpose was to find out the progress between students' behaviour and their grades along with different developmental phases. The conclusion of this study was that behavioural problems at an early age became the reason for lower grades(Agnafors, 2020).The researcher concluded that the developmental stage of a child is very important and if a child faces problems in their developmental stage, parents should solve those, otherwise, at a young age they will generate serious behavioural and mental problems.

Studies conducted on students' mental health affect their bodies and minds. It revealed that mental health issues produce changes in their moods for example good moods shift towards bad moods or happy to sad moods change. These are the side effects of mental disturbance that badly effects memory. It can cause low hunger and feelings of being unimportant and aimless (Hyman, 2016).

A survey conducted in 2020 revealed that sixty-three per cent of adult students face health-related issues, one of which was academic stress given by the institute's administration. Most college students are affected by this kind of academic stress and as a result, this stress affects their performance in college annual results (Albers, 2017).

Further, reported the study of the academic performance of students and the factors affecting it. The researcher concluded that thirty per cent of students are affected by physical illness by lung infections (Almojali et al, 2017). Regardless this was only because of a simple cold, mental health condition, or chronic illness and during illness, there was one thing the same their illness disturbed their studies. They could not continue their studies and this affects their academic performance. Distance learners could study at home as compared to regular students who could not manage to study at home and don't have the energy to focus on their tasks, assignments and presentations.

Therefore, many factors caused stress, and one of them is a lack of social attachment. Less socialization with other classmates, friends, and family members. These factors cause isolation and affect mental health. After college, they have less time to develop social relationships and become more social. That's why school is a better place to develop these characteristics in their personality, participate in co-curricular activities and make new friends. It helps students to deal with academic pressure and decrease stress levels among them (Bayram et al, 2019).

Studies have found that education is becoming expensive over the years, even in public schools. The costs of books, stationery, housing and food have increased. These inflating high rates cause an increase in the stress levels of students in managing their finances. Even if they can get loans from governments, it also gives them tension and stress because they have to pay back to the government. Therefore, to pay back aid they have to work during school life, and

manage finances. It has become a burden on them after school when they go to college, their stress levels increase, and they become more sensitive emotionally. Doing part-time jobs and managing studies together becomes difficult and it affects them physically and also mentally. They don't get leisure time to relax and enjoy themselves with their other age group students and friends. (Eisenberg et al, 2007).

Studies done on the negative effects of social media, for example, Facebook, Twitter and Instagram, things on social media are not displayed in an actual way, and fake news and stressful events spread anxiety among people, most of those who are affected by it are emotionally weak. It concluded that spending more time on social media and apps like Facebook, Instagram and Twitter had impacts badly on an individual's mind. Many students had seen low merits in educational outcomes and were using more social media. It directly impacts their performance and results in institutions and also on their health. Excessive use of internet applications made students lazy for doing physical activities and loss of interest in their studies (Chow & Moreno, 2013).

Steers (2016) claims that one of the reasons for depression was social media. There was evidence from the study that excessive use of social media leads towards mental health disorders, depression and anxiety. It caused an impact on students' performance in schools, they lost their interest in their studies and wanted to spend more time on using social media. Students face different kinds of problems like sleeping disorders; because they do not follow a proper routine of daily life sleeping, and sleeping disturbances affect an individual mood, disturbance in a classroom, anxiety, sort of jealousy with other fellows those performing better than them they feel jealous from them and lower self-esteem in young students had been seen (Hopwood, 2013).

Another study revealed the difference between online and face-to-face interactions or classes; this study concluded that online interactions prefer mostly instead of face-to-face. However, online interactions and studies create more distance and a lack of socialization. Interactions among the students with their fellows if it's face-to-face would increase their self-esteem, their confidence level and they will participate actively in all activities. Instead of online interactions increase stress levels, made students lazy and mental health disorders increased among students (Becker,2013).

However, the current study to a comparison between the level of depression and anxiety of social media addicts and others. This research did not give the same findings when observing anxiety, and depression as the previous findings, which suggested that all those experienced more mental health problems. Further, the researcher concluded that those who were addicted to social media experienced more mental health problems for example depressive thoughts, anxiety, stress, and sleeping disorders, as compared to those who were fewer users of social media applications. (Alzahabi, 2013).

2.3 Beck Cognitive Behavioural Theory

Cognitive behavioural theory is also relevant to students' problems related to mental health. For example, depressive thoughts, sadness, and stress. Beck's theory recommends professional help to overcome these disorders (Sakano, 2019).

Problems related to mental health among university students had negative effects on their educational outcomes and social links with relatives, and friends. Analytical studies had been conducted on more than two hundred related relationships between students' academic performance and their mental health. These studies resulted that higher stress level among students negatively impacts their academic performance (Yokomitso,2019).

The cognitive behavioural model of Beck gives a detailed explanation of mental health disorders: thinking disorders, in these disorders cognitive function does not work properly. Cognitive models help to maintain emotional stability and positive self-judgement and manage to control emotional reactions as that is largely seen as the reason for emotional satisfaction and responsible for their emotional well-being and normal life routine. On the other hand, negative judgments make students more depressive and anxious (Caselli, 2018).

Moreover, Cognitive behavioural theory is focused on changes, which gives importance to goal acceptance and positive thinking. It helps to enhance mental health flexibility to maintain the mental condition in sensitive situations such as, in the condition of trauma, shock and depressive situations. Cognitive behavioural theory gives ways to react in these situations calmly and shows flexibility (Hayes, 2013).

Models of CBT and its variables related to students' mental health disorders analysed its effects on students and their educational performance. This study showed the negative effects of mental health disorders on students' academic outcomes (Hayestal, 2018).

A study was conducted in British to find out the negative behaviours of students and their effects on them. This study was analysed by Cognitive behavioural theory to identify the effects of negative thoughts, behaviours and negative feelings among students. Through Beck's cognitive theory, researchers provide them with therapy and reduced the effects of negative thoughts (Bruch, 2015).

However, the theoretical work of Beck and Ellis for patients' behavioural psychological lives and during their sessions they take care of their emotions and experiences that should not have effects on their patients from the psychological perspective. One another session with the expert behaviour therapist, practising those days on different kind of patients and their stories enhancing their experience. That time behaviour experts investigating those stories can be called ruled governed behaviours of patients (Mosticoni, 2018).

The study revealed that the Beck cognitive theory is mostly used theory by therapists highlighting the level of depression, anxiety, and stress in respondents. Beck's cognitive theory is the most effective theory and always provides the best results for the mental health of patients and respondents (Nathan & Gorman 2015). Environmental effects on students investigates through Beck's cognitive theory and it showed they were negative thoughts and depressive feelings. Many studies and scientific literature concluded that the Beck cognitive theory best therapy among all others. This cognitive therapy is for all kinds of mental disorders and emotional disorders. Maybe in the future other theories shuffle from top to down because of many reasons like environmental changes, but now cognitive therapy considers the best of them. The psychologist used it as a psychotherapy for emotional and psychological problems for example depression, anxiety and stress.

2.4 Depression, anxiety and stress scale (DASS-42)

For the current study, the researcher used a “Combined Depression, Anxiety, and Stress Scale (*DASS-42*; Lovibond)” closed-ended questionnaire for data collection. Which has a total of 42 items, with variables as; depression, anxiety and stress, and each variable has 14 items. Which the researcher used for data collection. The design of the depression, anxiety and stress scale (*DASS*) explains the results that are between mild, moderate and severe. Respondents who were between mild and moderate are considered normal, however, those who were near severe needed professional help and it is an alarming and worrying situation for them.

The Depression, Anxiety and Stress scale (*DASS*) scale was developed by Lovibond (1995) and in a recent research study used by Nasar Ahmad (Ahmad et al, 2021). Then scholars adopted the questionnaire (*DASS*) Depression, Anxiety and Stress scale. The statements of the questionnaire were rated on a 5-point Likert scale. The responses were coded as 1 to 5 from strongly disagree to disagree, neutral, agree and strongly agree. The questionnaire consists of 2 parts. The first part is descriptive statistics which includes information on age, gender, name of the school and educational outcomes. The second part of the questionnaire is related to questions about depression, anxiety and stress. With a total of 42 items to investigate the impacts of mental health on the educational outcomes of secondary school students of Dera Ghazi Khan.

A study was conducted on students for investigating their mental health. For this purpose, the researcher used the Depression, Anxiety and Stress Scale (*DASS*). The study was to investigate whether the levels of depression, anxiety and stress are higher in school exams or in board exams. The results of the study were; those students who were studying in the same school, with the same faculty and under the same environment had lower levels of depression,

anxiety and stress. Compared to those, students who were giving board exams had higher levels of depression, anxiety as well as stress (Bhasin,2010).

Depression is a common mental health problem in which students adopt depressive thoughts, lose interest in things, do not concentrate on studies, develop a loss of appetite, and become more introverted and antisocial studied by the World Health Organization. They also included that depression is considered the second big disorder in the year 2020 reported by the World Health Organization and the major leading reason for dysfunction in developing countries is also considered depression (Ozdemir&Rezaki, 2007). Because mental health disorders are increasing rapidly in developing countries and in future years they will increase in numbers.

Depression is associated with serious kinds of acts, for example in depression risk of suicidal behaviours rapidly increased among them, obsessive-compulsive disorders increased in them and addiction to tobacco and smoking among them increased in most of the above 18 years students. Moreover, it had been seen more than 90% of suicidal cases in India and Asia have been seen above the age of 18 years and below the age of 30 years and those who died were facing severe mental health problems for example depression and anxiety. Further, they reported that in higher education students had more problems related to mental health (MurrayLopez,1997). Students addicted to tobacco and other substance injurious for their health lead to depressive behaviour. Mental health disorders occurred because of using those harmful substances. So many cases had been seen in higher education institutions, students used these substances and the rate of suicide among them was higher than others. Because these harmful substances blocked their minds and their thinking ability and they took the wrong decisions.

Another study was conducted on university students to determine their mental health and their academic performance. The results were shocking, the problems of mental health-related to

high risks to the lives of the people and most of them who were affected couldn't get over it. Students at higher education levels and at university had seen higher levels of depression and anxiety among them unlike those at lower education levels (McLennan, 1992). The researcher concluded that the academic pressure and the pressure of studies given by teachers were partially responsible for the mental health illness (depression and anxiety), the burden of tasks on them made them stressed (Tanaka &Huba, 1987). Depression and anxiety among university students negatively impact their educational outcomes or their university performance. They could not perform better because of their mental disturbance. (Dyrbye et al., 2006) took participation in students learning problems especially those who studied at the university level, the fear of failure in their mind hurdles their active performance in studies.

Another study was conducted on students in well-off families, and their comparison with males. The conclusion was that the boys' students were less stressed and depressed as compared to the girls' students because the girls' students have more pressure at home and socialize less that became the reason the girls were more stressed and depressed as compared to the boys' students (Bhasin et al.,2010). Females were not emotionally strong enough to handle the pressure and became depressed, but males handled the parental pressure and were less depressed as compared to females.

Moreover, Bhasin studied anxiety, stress and depression among students. The research was conducted on the comparison of students between school exams and board exams. Those students were studying in the same school, with the same faculty and in the same environment. But the results were different, the students who were giving board exams were more depressed and under stress as compared to others who were giving the school exams.

A study was conducted on a comparison between medical and engineering students. The levels of depression were higher in the medical students and their suicide rate was also higher than the students who were studying engineering.

Studies were conducted on college students to assess their mental health problems and identify the level of anxiety, depressive behaviours and stress among them. They used DASS as a tool to identify their stress, anxiety and depression. They selected only females for this research because they identified that females were not performing well. The study concluded that the female students were facing severe mental health issues related to anxiety, depression and stress. Talib and Zia urReman conducted a study in 2012 on a comparison of stress levels among students who were enrolled in a professional degree such as medicine, engineering, planning & management and other sciences. They did a comparison between them and other social sciences students. The results were that the sciences and medical students were more stressed and depressed as compared to the social sciences and art students. Because social sciences and art students had more time for social activities, friends and for co-curricular activities. But science and medical students had less time for their studies and had to concentrate more so they could not enjoy their leisure time. So, they were more depressed and stressed.

Watson conducted a study on mental health issues and all of their aspects. For this purpose, the researcher uses the scale of Lovibond DASS, for measuring the anxiety, stress and depression level of the students. These were in the tool of DASS as a subscale which helped to identify the level of three subscales anxiety, stress and depression, which were from severe, to moderate to normal and at a mild level. A total of 42 items included 14 for anxiety, and 14 for stress, and the same as 14 for measuring the depression level.

Study to highlight mental health problems and their levels, depression, anxious thoughts and different kind of phobias. The researcher used DAAS for this purpose and presented it as a two-factor construct that was taken as a negative and psychological stimulus (Duffy et al, 2005).

Sacks (2007) conducted an experimental study on mental health disorders and how to eradicate them. Researchers, first of all, identified the students who were mentally ill, stressed and depressed, they selected them and started to give them different therapies, one of them was music therapy. According to Sacks, music listening can give the mind relief because it is connected with that part of the brain where the cerebral cortex, basal ganglia and cerebellum were located. After listening to music, they observed differences in their depression and anxiety, they were relaxed as before.

Larson & Lee (2000) and Brun& Shapiro (2013), studied the reasons for the investigation of the academic stress of students. According to them, academic stress is linked with environmental factors. Some students were praised and others felt an inferiority complex in themselves. Other reasons, for example, if some students are not financially stable like their other classmates, they will feel stressed. So, their personal and professional life needs to be separated.

It is considered that low stress is necessary for good work, better performance and to be motivated. Those students who work under pressure and in a stressful environment when are given tasks they do not work properly and with that motivation for that they were trained. So, a low level of stress is necessary for the students for better performance and to do work on time and with full concentration, institutes get quizzes and tests from students which motivated them for good work and be praised in front of others (Uchil et al,2017).

Stress increases for different reasons in individuals, some causes of stress are academic anxiety in students, marital status, parents-children relations effects on students and it also causes mental health diseases. These factors psychologically harm individuals' minds and effects personalities, those students seem low on confidence. If sciential seen its effects on the brain the part which is called the adrenocortical axis is located in the nervous system. Some psychological issues affect the body and cause a high rate of heartbeat, blood pressure issues, respiratory problems and sometimes an increased flow of blood towards the skeletal muscles. These issues result in a state where the body reacts against these psychological problems, and then the blood flows and the heartbeat is affected, this situation can be called a fight or flight situation (Bourne & Yaroush, 2003).

In this century, mental health-related problems are increasing, especially stress, issues not only in adults but also increasing in all age groups, even children at the school level are facing mental health-related problems. The pandemic situation also took part in increasing the levels of depression and anxiety in students and working people. Stress is considered the first cause of mental health problems that effects students' educational outcomes. Therefore, a low level of stress is good for students, also known as eustress, it motivates students to better their performance and work more effectively. These low levels of stress activate the mind and give courage for growth and development. That makes them able to compete with others and able to survive in this universe. Moreover, every individual feels stressed and becomes depressed at any stage of their lives, because of different causes, such as environmental factors, family problems and inferiority complexes. But it's important to get over it, if it remains for a long time period it can be more dangerous and become very difficult to be normal (Currie et al, 2016).

Another study was conducted on mental health problems and identifying the level of stress among students. Comparing the level of stress and their academic performance, they concluded that the low-level stressed students worked harder and performed better than others. But students who were highly stressed could not perform well. It is considered more important to differentiate between the students who were at low-stress and those who were more stressed and treat them as they deserve. Students with a higher level of stress should be treated nicely and provided with consultants and coaches who guide them and help them to overcome these kinds of mental health problems. Then their performance can be better like other normal mental health students. They advise them to develop their relations with other fellows and take part in games then they will be social which helps them to be stressed out (Gale, 2018).

2.5 Effects of depression and anxiety on students in Asia

Many studies have been done in the medical field (Alharbi, 2019) investigating the Arab region about depression and anxiety among high school students and the results found that females of age 17 to 19 face more mental health problems related to depression and anxiety in them increases as compared to male students of the same age. Most of the well-known neurological issues are misery and some phobias which affect the world's 5% to 7% of the population individually. Worrying thoughts and tensions affect mostly 3.8% more of the population and 1% face substance issues at the matured age of 60 years and some above sixty (who, 2017). Depression and anxiety occur changes in human behaviour and also cause diseases. Sometimes it causes a severe type of nervousness and it affects the daily activities of the life of the person who suffers from it, he/she loses interest in all activities, for checking its effects factors like socio-demographics by the test of Chi-square. Human beings face different kinds of problems in their lives, the most important and sensitive stage of human life is just

before adulthood which is called the pre-adulthood stage. In this stage, the children face different conditions of depression like stress and anxiety. The researchers could not clearly justify those changes which occur in adults, for example psychological, physical and mental changes. In this period, psychological problems are considered very important and their impacts on their educational outcomes have been seen clearly by different researchers. (who, mental health, 2017). Studies about mental health disorders in hospitals show that males have more mental health disorders than females, mental disorders are commonly used in the modern era and mostly adults are affected by them. (Celine, 2010)

To completely comprehend the emotional wellness issues of Pakistani college students' experience, it is vital to comprehend the climate they live in including their social, furthermore, social foundation, relational peculiarities, segment foundation and economic well-being. To start, emotional wellness is a basic, however often overlooked, field of clinical well-being science in Pakistan. It isn't viewed as energizing, nor does it have the status it ought to have in contrast with some other clinical trains, for example, nervous system science and cardiology. Recognizing and requesting help for the treatment of psychological well-being issues fundamentally remains stayed away. The purposes behind this are attached to customary convictions, cultural pressing factors, misguided judgments and negative pictures encompassing mental medical clinics, patients and related experts, for example, therapists and specialists. Emotional wellness experts are still seen by the vast majority in a negative effect (Irfan, 2016).

Weakness victims realize that there were not any temporary and convenient solutions to overcome a particularly unpredictable and multi-faceted condition. Even more interesting when a useful specialist joins their own weakness and real well-being venture with his expert encounters to offer a useful guide that tends to entire well-being, this is a fundamental reason for weariness

(ABOIM, 2017). Recovering your well-being is certifiably not a straight way with a couple of handy solutions, and what appreciate is that Dr Hirsch doesn't guarantee it to be. so, offers a bit-by-bit approach, and numerous common sense devices, to permit you to rediscover your body and get back on track to generally speaking well-being. A rousing read, nowadays human health is considered the most serious and important thing and has to be cured at a starting stage because it never leaves impacts on an individual's behaviour, health and personality but when it remains for a longer time it affects badly on the personality, moods and totally changes the person. Better to treat at the start and remove it and go to a psychiatrist and take sessions for this do not feel any kind of shame or hesitation. Like in other cases, it is also a disease.

Mostly the age above 14 is affected psychologically, at this age they are not emotionally stable (King & Vidourek, 2012). A psychological condition in which individuals feel a strain on their minds, or some kind of fear, badly impacts their confidence. They remain unhappy and feel aimless and have less power to deal with common problems (American Psychological Association, 2015).

A study was conducted in Iran for investigating the relationship between psychological state and performance in education, for this purpose the researcher has a questionnaire with the components of psychological state and chose two groups of equal numbers in hundreds. One group was active in co-curricular activities and the other was not active in different activities and games (Mehdi Bostani¹, Amir Nadri, 2014). Unexpected results were found that there were not any effects of performance on the psychological state and vice versa. Further, the researcher concluded that if students are strong at their level and in their psychological state then it will only affect their performance positively.

Titus Young examines the stress level in students outside the institute, this study was conducted at the United States University of Eastern Illinois. Through quantitative study to measure students' stress levels with the help of a questionnaire and the result of the first statistical hypothesis is the difference in registered student organizations, some studies found that undergraduate and graduate students who participated in community service and connected with different activities had lesser stress level then of those students who did not participate. A second statistical hypothesis is finding out if there is a significant difference in students' stress levels who work for six hours and who work less than six hours a week. Some researchers found that students who work for more than four days a week have lesser stress levels than those who work more than six days and are also engaged in different kinds of activities, the pressure of responsibilities, and trying to balance between studies and work (Young, 2017).

Farooqi, Ghanl and Spielberger (2012) identified in their own study the gender difference in anxiety and academic achievement. Results found that females have higher rates of anxiety than males in medicinal studies. It shows that anxiety affects a female's medical academic achievements more than a male's.

Additionally, a study by Rana and Mahmood (2010) investigated the relationship between educational outcomes and anxiety in students at the high school level. They concluded that the relationship between educational outcomes and their mental health issues was negative. Family stress and social stress increased in students at the school level they feel the burden and those who were not emotionally stable faced mental health issues for example depression and anxiety.

2.5.1 Effects of depression and anxiety on students in Europe

The definition of depression is sad feelings and no motivation for the future and a loss of interest in things they felt interested in and enjoyed before, feelings of sadness, loss of interest in activities, guilty feels increased, low self-esteem, low confidence, loss of appetite, usually feeling of tiredness, loss of interest in all activities and not liking to go out and a loss of concentration in things and education or studies (who, 2012). There are worldwide more than three million people facing psychological disorders and that number is increased by 4% in 2020. The first leading cause of total diseases is burden, it affects repeatedly and it never stops quickly. It has long-lasting effects on people's health and also affects their social circle, and ruins an individual's life and personality, reducing the ability to cope with daily routine problems. Schools are the best place to provide children with good mental health and counselling. Children spend their most precious time in school (Auerbach, 2018).

This book clearly shows that if an individual is facing depression they do not need to hide it from society or others, go to a therapist this is also a disease like other diseases. However, it has more serious and long-lasting impacts on individuals. So, individuals, who are suffering from anxiety and depression do not have to feel any kind of hesitation, to get treatment before it becomes more severe (Gottlieb, 2019). At the point when the writer was at last determined to have a frenzy issue that gives shape and legitimacy to her deep-rooted insight, she meets her finding with a thrilled alleviation and the writer feels unusually strong, similar to her is a substantial individual. They didn't understand my sentiments were categorized as indications. Frenzy issue, the air is milder, and far-reaching, like the world, has abruptly opened and is unfurling each chance frenzy had once precluded. Each and everything in my life currently bodes well: the associations that person is unable to connect

and unable to take decisions. The weird switches the common world and every one of its dusks is turned on and off. From this profoundly close-to-home experience arises the widespread affirmation that what doesn't slaughter. Harsh composes: writer told that his life has stressed a lot and dreaded countless things, and however a considerable lot of those things occurred, still alive, having endured what he figured, proved unable. And the writer didn't turn out how figured that would, didn't get hitched and didn't have children, and the not having didn't slaughter me all things considered. According to the writer, individuals are largely only minutes as expected, a squint in a trillion-year history, regardless of whether our reality once in a while feels perpetual (Stern, 2018).

Furthermore, research on science students describes that the researcher does not want to demotivate science students with depression anyhow results showed that science students are more than other disciplines in undergraduate and graduate students (American College Health Association,2018).

Depression is one of the mental disorders, and it affects an individual's routine (life activities) and academic performance. (Esther, 2013). Individuals who were suffering from mental health disorders and changes in their behaviour. It is also found that lower grades and poor academic performance in students are associated with depression and anxiety (Eisenberg, 2009). Because when individuals are not mentally fit they cannot perform effectively in academics as a result their performance becomes poor.

Another study finds out that stress, depressive thoughts, and tension have a relationship with academic outcomes. This study has been done on college students in Michigan (USA), the study also elaborates that low grades are also one of the reasons for students' emotional instability. Different kind of negative behaviour also generates psychological problems and

mentions that poor diet also affects the results of college students. The results of this study elaborate on the importance of emotional and psychological health, and its impacts on adult students and their academic grades are also affected by their psychological health (Daniel,2009).

A study was conducted on social wellbeing and depression, human health is considered the most serious and important thing and has to be cured at a starting stage because it never leaves impacts on an individual's behaviour, health and personality but when it remains for a longer time it affects badly on the personality, moods and totally changes the person. Better to treat at the start and remove it and go to a psychiatrist and take sessions for this do not feel any kind of shame or hesitation. Like in other cases, it is also a disease.(ABOIM,2017).

Mostly the age above 14 is affected psychologically, at this age they are not emotionally stable (King & Vidourek, 2012). A psychological condition in which individuals feel a strain on their minds, or some kind of fear, badly impacts their confidence. They remain unhappy and feel aimless and have less power to deal with common problems (American Psychological Association, 2015). A study was conducted in Iran for investigating the relationship between psychological state and performance in education, for this purpose the researcher has a questionnaire with the components of psychological state and chose two groups of equal numbers in hundreds. One group was active in co-curricular activities and the other was not active in different activities and games (Mehdi Bostani1, Amir Nadri, 2014 Unexpected results were found that there were not any effects of performance on the psychological state and vice versa. Further, the researcher concluded that if students are strong at their level and in their psychological state then it will only affect their performance positively.

Therefore, various studies had been found on students' behaviour and their grades, this study had been done in 2020 and targets the child's mental health, the researcher got data from

primary and secondary school students. Report of primary students assessed by their parents although other student researchers get their self-report. For assessing educational reports, the researcher coordinated with their teachers for getting educational reports. The purpose was to find out the progress between students' behaviour and their grades along with different developmental phases. The conclusion of this study was that behavioural problems at an early age became the reason for lower grades(Sara Agnafors, 2020).The researcher concluded that the developmental stage of a child is very important and if a child faces problems in their developmental stage, parents should solve those, otherwise, at a young age they will generate serious behavioural and mental problems.

Therefore, some educational programs have shown work related to academic stress. Through their courses that work on how to decrease stress and increase stress management, for school-based stress-related programs, to eradicate the mental health related problems. However, educational institutions need to work on the students' abilities and their skills, if some student is affected by stress previously then the educational institutions need to treat them towards positive academic outcomes and also help them to lesser the effects the stress on their health (Perry et al., 2017).

A study was conducted on Pakistan's college students on their social well-being and behavioural changes. Many students face mental health illness need a therapist but they hesitate to visit mental health professionals like psychiatrists. As a result, their stress levels increase and lead towards serious kinds of mental health diseases (Irfan,2016).

Implementation of stress management programs and improving skills for helping students to develop healthy activities to cope with stress. Pointing out the hurdles to the implementation

of stress-related programs in schools to help students with their development (Albers & Pattuwage,2017).

Additionally, a recent study finds out that mentoring also has effects on undergraduate students, poor mentoring has a negative impact on them. A study of 33 graduate students who are doing research, conducted data from 10 universities to identify their mentoring methods and the results were there are 7 out of 10 are negative mentoring their undergraduate research students. Which includes wrong use of power, absence, lack of motivation, lack of career support and psychological support as well (Gravet *al.*, 2012).

A book written by Gottlieb (2019),this book clearly shows that if an individual is facing depression they do not need to hide it from society or others, go to a therapist this is also a disease like other diseases. However, it has more serious and long-lasting impacts on individuals. So, individuals, who are suffering from anxiety and depression do not have to feel any kind of hesitation, to get treatment before it becomes more severe (Stern,2018).

Anxiety is very common in this competitive environment, it has a very important role in human life because many individuals are victims of anxiety by different problems in their lives. (Lenka& Kant, 2012). Spielberger &Vagg stated that anxiety is a situation that temporarily affects it not a long-lasting situation like depression. Sometimes problems increase and those emotions effect individuals emotionally. Anxiety is a constant personality character. According to Vagg individuals who have anxiety, are facing problems, for example, negative thoughts, worry, and psychological problems that arose in testing situations. This situation creates a more serious condition of anxiety in individuals and is considered an important emotional part of test anxiety. High levels of test anxiety of individuals who are suffering from anxiety they keep all worry memories in their minds and it affects test anxiety performance.

There are more probable chances of a positive relationship between test anxiety and trait. Busar (2012) identified the relationship between age, gender, depression and academic performance in adolescence. Find out the results that there is a negative relationship between academic performance and depression among adolescents.

There is a positive relationship between age and academic performance and also, and she evaluated that the academic performance of females is better than males. Owens et al. (2012) found a relationship between negative effects, worrying thoughts, memory and academic performance. They examined the higher level of anxiety and depression that is correlated with lower academic performance. They concluded that lower academic performance at a young age is because of a high level of anxiety. Further, they find out that today's student's face more mental health problems than they faced decades ago.

It is common mostly for college students they faced more stress in their life because they face changes in their family relations, changes in the environment, expositor new ideas and changes in their social life circle. These all-changings affect them and they face stress in their lives. Nadeem, et.al. (2011) investigated in their study, the effect of anxiety on students' academic achievements who have different mental abilities. They selected students from (Southern Punjab) the University of Bahawalpur Pakistan. The conclusion was when anxiety in university students increases academic achievement decreases furthermore the results show that ratio of anxiety to academic achievement of students both males and females decreases.

Facilitating youngsters give them different opportunities for improving their abilities and making them able to overcome stress-related problems i.e. depressive behaviour and daily life stress, these are a hurdle to their success (OECD, 2015). OECD focuses on the education system

which should be fruitful for students, where they can improve their abilities and their skills, through these abilities students, can become resilient.

Another qualitative study investigated academic stress because it is mostly reported that students face academic stress and multiple reasons have been seen to be stress. Students mostly affected by academic stress are secondary school students and some are tertiary school students suffering from academic stress, this stress affects them mentally and also physically, and it triggers academic problems. Stress management programs are beneficial for students, these programs give them potential and help them in their lives and also help them in their long-term behaviours. These stress management-related programs should be considered compulsory during adolescence and early adulthood (Sawyer et.al.,2012). A study evaluated the reasons for school dropout of students, which are commonly low-income and unemployed (Lamb & Huo,2017). Reported that early dropout of schools is mostly because of low income, unemployment, less academic results and poverty.

A study conducted in the United States by researcher Ball (2016) investigated that in the United States, more than 20% of students are facing mental health problems, and most are secondary school students. American health care academy work to mint the health care system and to maintain mental health problems “The American Academy of Paediatrics (AAP)” reported that one child in every 5 that they diagnose is suffering from some kind of mental disorder. All of them are not able to access the treatment, and only 21% can get treatment. AAP declared that mental health diseases are like other diseases and it is compulsory to get treatment.

This study reported that 20% of children in the United States of America have mental health and behavioural problems. A study reported that all children in their childhood faced stressful events in their lives, some are facing moderate stressful events and mostly experienced

extreme levels of stress in their lives such as violence and unjust treatment. Furthermore, the population of youth, adolescents, and pre-adults they have seen a greater risk of victimization. These problems in adults lead to serious mental health disorders, in school students face short-term mental health disorders and some have serious long-term problems, school administrators should provide mental health services in schools to help them (Martin et, al.2017).

A study determined in 2016 that mental health of school students spend 40% of their time without sleeping and this plays an important role in the nation's success. Estimated that could be 11 years of their lives spent to be awakened, so their mental health is considered very important (Dunn,2016).

Multiple studies on had done on the relationships between school students' academic achievements and their mental health disorders (Galanti, 2016). Pakistani medical student study of cross-cultural identifies the impacts of stress which effect on student's quality of sleep and education. Moreover, a study in the United States estimated that 9th to 12th-grade students have reported a 90% ratio facing sleep disorder, some adult has lots of sleep and which affects paying attention and lower grades, increasing stress difficulty to communicate with people. Some students start problematic strategies to cope with this such as smoking, and drinking (Waqas, Khan, Sharif, Khalid, & Ali,2015).

In a study to find out the impacts of mental health problems on students, in this study researcher evaluated that if students effects by mental health issues, for example, depression than firstly it will affect the student's daily routine (life activities) and academic performance. So, it concluded that the daily routine and academic performance of the student's effects by mental-related issues and needs concerns (Esther F. Akinsola,2013).

A study of students' social and behavioural health; and relationship of school staff with workers in school. Berzin (2012) reported that there was a very less professional experience among school staff and also, and they claimed that they did not get any experience in their previous service in providing mental health facilities and represented because they did not have any experience in their past. Moreover, teachers think of themselves as useless for these mental health services because they did not get any training for students' mental disorders, and behavioural and social interactions.

This study also reported that schools did not provide any kind of resources and equipment to help students with mental health disorders. Berzin (2012) reported that teachers feel unprepared to represent as mental health trainers as a result students mental, emotional and behavioural problems increased. This study highlighted these problems and also that teachers are interested to help the students. Teachers prefer experts and mental health professionals needed to help those students; they should be appointed on campuses to decrease those problems.

This study also gives information about an alarming situation, which was an increasing number of students with mental health abilities and social behaviour. Stress increases the causes of different kinds of serious diseases, increasing weight, high blood pressure, insulin sensitivity, and increase risk of heart diseases as a result of these diseases leading from a healthy lifestyle to unhealthy lifestyle habits (Pervanidou& Chrousos,2012).

A study of children's mental and social growth needs to be focused on by professionals in mental health. School administrations should work on children's cognitive development and also their behaviour with peers, teachers and parents (Atkins,2010).

They divided it into three categories environment of their labs, research mentors and failure of potential in students leads to depression. Many students claim that their relationship with their mentors and lab environment negatively affects their depression and mental health as well as could have positive effects on their experience. Stress is caused by the response of the body to the pressure and experiences of everyone. Stress can cause high blood pressure, lack of sleep, and headaches and impacts physical problems and mental well-being (Britz& Pappas, 2010), college students' sources of stress, are interpersonal, interpersonal and academic environments also have impacts on college student's mental health. A study by Britz and Pappas (2010) find out that more than 50 per cent of college students out of 124 participants always remain stressed because of time management, academics, plans and lack of sleep top reason of their stress.

Science disciplines are considered as boring, repetitive, difficult, math-oriented and competitive in their nature. These factors increase depression in them (Armbruster *et.al.* 2009; Ceci& Williams, 2010), also differentiates between science degree programs are more stressful than others.

Individuals who are suffering from mental health problems they did not find out what's happening to them, it changes their behaviour. It is also found that lower grades and poor academic performance in students are associated with depression and anxiety (Eisenberg,2009).

A study conducted on anxiety and kinds of anxiety elaborates its two types, first one is an anxious person can be emotionally stable and performs well, but that person does not respond anxiously. They know how to stay calm in those situations. That consider a stable and emotionally strong personality. In every situation, they stay calm and relaxed, even if they

were stressed or facing some kind of emotional trauma. Moreover, anxiety had severe effects on students' educational achievements because anxious students could not concentrate on their studies and difficult to remain relaxed. Students had different kinds of anxiety and phobias; the researcher highlighted some of them. Stage anxiety in giving a presentation in front of the whole class, some students had mathematics anxiety that they could not solve mathematics simple questions, some had communication anxiety and some had anxiety writing down tests (Onwuegbuzie&Bostick).

A study conducted on mental health problems such as anxiety, research conducted in the comparison of normal ordinary students with extra intelligent (gifted) students. The study elaborates those gifted students have to face more stress and pressure. Because others set high expectations for them to meet others' expectations gifted students remain under pressure and tension, and as a result, mental health problems are affected them. Time duration of studies also matters, more or fewer hours of studies affect students' academic achievements (Fletcher & Speirs,2012).

A study was conducted on the comparison of academic achievements and the periods which students spend with their family and parents. That period affects students' grades and is good for the mental health of students. However, a study was conducted in British to find out the negative behaviours of students and their effects on them. This study was analysed by Cognitive behavioural theory to identify the effects of negative thoughts, behaviours and negative feelings among students. Through Beck's, cognitive theory researchers provide them with therapy and reduced the effects of negative thoughts (Bruch,2015).

A study was conducted on students' cognitive, behavioural and psychological problems and the effects of stress on them. Further elaborate that anxious students can suffer from

other mental health disorders and depression. Recommended that the parent-teacher meetings and their relationship should be developed for students for helping them to decrease anxiety and stress in students (Huberty,2009).

Another study was conducted on the impacts of the anxiety on academic performance of the students at Bahawalpur University, Pakistan. A survey was conducted and reported that anxiety had a great impact on student's academic performance and with a high level of anxiety performance of the students became affected and their grades become lower for both male and female students as well (Nadeem &Zaidi et al,2012).

A study was conducted on the anxiety and learning capacity of distance learning students. They asked open-ended questions that why students did not choose to study at distance learning programs and some answers were related to anxious problems of the syllabus and not the availability of teachers and other resources like regular students. About a hundred students from Eastern University and asked them from those students questions related to distance learning anxiety. And who prefer these distance learning courses were antisocial and had social anxiety (Tuncay&Uzunboylu, 2010).

Study on students' phobias related to academic performance like test anxiety and stage anxiety. This study explores the relationship between depression, stress and anxiety-related problems. All these problems were correlated positively and negative effects on the academic performance of the students (Akinsola& Nwajei,2013).

2.5.2 Academic anxiety among students

Many studies conducted on the academic anxiety of students, the anxiety of poor performance and anxiety to become fail and this research was conducted on the comparison of male and female students for board examination anxiety. (Bhasin et al., 2010). Concluded that

female students had more anxiety about board examinations instead of male students. Females were not enough emotionally strong to handle the pressure and became depressed, but males handle the parental pressure and were less depressed as compared to females.

A study to investigate the relationships and impacts of academic anxiety on students' academic achievements. Researchers investigate the student's level of anxiety and made their groups accordingly. They made groups separately for males and females, and for levels of academic stress for getting accurate results of the study. The researcher concluded that the male and female students who were more academic stress they get low academic grades as compared to those who were less stressed academically (Shakir et al,2014).

A study was conducted in a UK university to identify the relationships between anxiety and the academic achievements of international students. They concluded that anxiety related to academic performance strongly. There were many factors related to international students' anxious behaviour because they were not habitual of that system and examination. Fear of academic results was more among them while other students who were natives of the United Kingdom were less level of anxiety related to academic performance (Agboola& Evans,2015).

Furthermore, research to analyse the impacts of mental health problems such as anxiety on students and their academic achievements and the effects of anxiety on the student's academic performance at the college level. The study concluded that different, responses revealed that there was not such a strong relationship between anxiety and academic performance (Shibli, 2015).

A study was conducted in 2016 to investigate the reasons for anxiety among university-level students. The researcher reviewed the related literature on academic anxiety to investigate the reasons or factors that cause stress among students. In this qualitative study, they analysed

some factors were caused stress among students. Some were institutional environment, family behaviours with that pupil, and social factors were also considering reasons for stress students. Students who suffer from stress can be resolved by non-clinical but some serious kind of issues needs clinical help. They must need professional help at right time, delays can cause severe results and take longer treatment to become normal. Each school should give awareness to students about mental health-related issues and provide them with counselling centres and solve these kinds of mental health problems at early stages (Rehman,2016).

Cooley (2007) conducted a study on social anxiety among students. This study highlighted the effects of society considered important for studying anxiety. For example, relationships with classmates, socialization among peer groups, relationships in hostels and roommates. These factors had great impacts because social anxiety impacts students' behaviours negatively. They elaborate on four stages of social anxiety, first one was the skill deficit model, second is social anxiety because of the lack of the skills in students to handle the situations quickly. Third is considered the classical condition model that negative stimuli are related to social experiences. The last is the model of personality traits and social anxiety traits. Situations that caused them to feel shy and less confident. To remain calm and relax they can manage anxious thoughts, if students practice it to remain calm in every difficult situation.

Susan &Margareth (2006) conducted a study on family factors of anxiety problems in primary and secondary school students who had high anxiety problems. Some of them are affected by this because of history, separation anxiety; if the child has to stay far from their parents because of some reasons, it can be divorced or other family problems, then it may suffer from separation anxiety. In school life, if those students face less appreciation from teachers, they feel inferior and it may increase their anxiety. Some students face anxiety to come

on stage and giving a presentation in front of the class and teachers that anxiety impacts negatively students and lack of socialization. Those students feel hesitation, sweats, in their hands, and sometimes shivering legs because of anxiety to perform in front of the class. It can be reduced by practising in the class presentation then they may feel less hesitation and less anxiety.

Depression is the main and serious mental health issue; cases of related depression being increased rapidly. Most of the school and college students were affected by it because they were not emotionally strong as university students. So those undergraduate students suffer a lot from depression (Centre for Collegiate Mental Health, 2017). Moreover, rates of depression increased rapidly, a study reported about twenty-five per cent in college-level students.

Berzin (2012) reported that in the investigation of mental health awareness in teaching staff, they found that there was a less professional experience of school teachers and they did not get any training or short courses for counselling the students. Furthermore, in their school were not any kind of facilities to provide students with sessions about awareness of mental health and emotional intelligence. During their exams, some of them become more stressed and panicky. As a result, they perform badly in their exams and their grades become lower. Because of academic stress and exam phobia among them. So, the teaching staff is not able to judge the behaviour of the students and their interactions with other fellows. Moreover, the researcher reported that teachers were unprepared and not having any kind of information or training related to mental health issues, so these problems were increasing day by day.

Past studies highlighted that the relationship between depression and academic achievements is negatively associated with the American college health association (2019). The studies reported that depression decreases students' grades in their academic performance.

A report from 2019 shows the effects of depression on students' grades and both academic performance and depression are negatively linked together. About twenty-five per cent of students reported that affected by depression and their performance was also poor. Multiple factors affect academic performance, but depression is considered major, it caused low grades, loss of concentration in studies and dropout numbers of students linked with depression (Hysenbegasi et al,2005)

Another study of the relationships of depression among natural sciences students. It concluded that they were more depressed and stressed because of the competitive nature of their study which require more concentration (Seymour & Hunter,2019).

Flaherty (2018), explored the experiences of research among undergraduate and graduate students, students those conducted scientific research were more depressed as compared to others. They faced mental health issues due to a lack of management in their life and work. Their relationships with their research supervisors also may increase their depression. The especially current study depends upon more than two thousand students with PhDs and at the master's level from different programs of research including sciences students, about forty per cent of students experienced moderate depression, and about twenty-one per cent who were agreed.

Another study on science and biology students who suffered from mental health problems because of environmental problems and unemployment. Different kinds of stress such as environmental stress, academic stress and family stress also affect them (Nagy et al,2019).

Furthermore, in a study conducted on the comparison of college-level students' and university students' research, the study concluded that most of them suffer from mental health problems like depression, due to different factors like mentors and college-level students affected the most mental health-related problems. Students in the United States suffer from severe levels

of depression. There was less availability of mental health care services and counselling centres for students (Wyatt & Oswelt,2013).

2.5.3 Academic stress among students

In this study, academic stress related to the environment of academic institutions and faculty of institutes is also responsible for the environment of academic stress. These situations impact individuals and their moods because their moods become changed when they feel stressed, uneasy and restless because of the school environment. Researchers agreed that academic stress is not always negative, some stresses are positive which can be called eustress. A normal level of stress is important for students and it maintains routine life activities (Kahan&Hakimi, 2008: Daghighi, &Bahrani, 2011).

Identifying stress and the strategies to overcome stress among the students of nursing, help the students in their situation of stress and also help them for learning in stressful environments. It will increase their learning capacity and care for their patients (Martos et al.,2012).

Many studies have been done to identify stress and strategies to overcome stress, there were very few studies to show that these stress-related strategies changed over time others proved that never. Future studies will measure it by doing longitudinal studies and mixed method studies can measure it. This study in future might give different results in future because of environmental changes (Khater et al.,2014).

Diseases determined psychologically that occur because of stress are slow development, different kinds of heart diseases, and reproduction-related diseases; there are mostly genetic diseases but also it has been seen that causes of stress among individuals (Hellhammer, 2008).

Another study by Wheeler (2007) defines stress and gave its definition that stress is physics word it shows that a force that pulls the object or body towards themselves; further explains it in real life that stress is problems and how problems of daily routine life forcedly pull human beings towards problems. Examples of conflicts with family and friends, daily routine issues, and financial problems, are like forces that pull the human body and mind towards stress and as a result of it these cause different kinds of diseases.

In 2005 study elaborate that what is stress and they explained that stress is an unconscious reaction, and it occurs because of internal and some kind of external factors effects on them. Moreover, this may be the positive or negative response to the society and environment in which we live and this affects our body and changes occurs in our body organs, during this situation of stress our body organs effects and our heartbeat remains fast, imbalance our blood pressure, and hormonal changes also effected the most (Pargman, 2006).

A study conducted on the student's stress levels elaborate that there were less in numbers of students affected by stress. On the other hand, stress is becoming a lifestyle for humans (Masih& Gulrez,2006). Stress affected students at every stage of their life and impacts their cognitive development. That may decree not easily because they suffer from their childhood and developing stages (Banerjee & Chatterjee,2016).

The study highlighted the factors of stress among students, this study concluded that the stress is not given by institutions, it is given by parents to their children for expecting from them high grades, and top positions in their academic results. That every student could not handle and each student can't get top positions because of different ways of understating. For those who could not score good marks, the pressure of their family and parents increased their level of stress and different mental health problems occurred in them (Saha,2017).

A study conducted on students who use social media and Facebook had a low level of depression in those individuals, because of social interactions among other same-age group students (Steers,2016&Steinfeld et al,2007).

Chapter 3

RESEARCH METHADODOLOGY

This chapter elaborates on the research methodology and it consists of the research design, population, and sample, sampling technique, the instrument of the study, data collection and data analysis. As for as the research design is concerned to present study, followed the quantitative research paradigm. The study comprises four variables, depression, anxiety, stress and educational outcomes of students. The current research study investigates the effects of mental health on the educational outcomes of secondary school students. The present study further seeks the gender-based difference in mental health among secondary school students of Dera Ghazi Khan Tehsil.

3.1 Research Approach

The quantitative research approach was used to generalize the results and help other researchers to conduct further research. Moreover, the researcher used Depression, Anxiety and Stress scale (DASS) scale which was developed by Lovibond (1995) and in a recent research study used by Ahmadet al (2021). The researcher used the adopted questionnaire (DASS) Depression, Anxiety and Stress scale. The statements of the questionnaire were rated on a 5-point Likert scale. The responses were coded as 1 to 5 from strongly disagree to strongly agree. For investigating the effects of mental health on educational outcomes of secondary school students.

3.2 Research Design

The research design is a structure that elaborates the procedures of research and how the research will be done. Therefore, the research design of the present study also included the methodology of the research, population selection, techniques of data analysis, objectives of the study, sources of data collection, and statistical analysis of the data and last one is ethical issues.

3.3 Research Ethics

The basic ethics of the research was confidentiality and secrecy. Thus, research ethics were also considered during data collection from respondents all over the research process. Permission letters for formal permission are provided to the school's principals given by the university. Furthermore, respondents' names were not asked from them. The basic purpose of the research and the topic of the study were also explained to them. Respondents' willingness was also considered. Proper references and citations were also given in this study.

3.4 Population of the study

All the girls and boys secondary school students of Dera Ghazi Khan Tehsil considered the population of the study. Moreover, a research questionnaire was distributed to the 10th students of Tehsil Dera Ghazi Khan. To carry out this research, the researcher selected 20% population from the total population of the secondary schools of Tehsil Dera Ghazi Khan. There was a total 54 number of secondary schools. Out of 54, there were 28 boys' and 26 girls' secondary schools at Dera Ghazi Khan. Girl's strength was 1800 and boy's strength was 2200. The list of 54 secondary schools of Tehsil Dera Ghazi Khan provided by the District Education Officer (DEO) is attached in the annexure (Appendix F).

Table no.3.1

Research population details of secondary school students at Dera Ghazi Khan.

Strength of students	Girls' strength	Boys' strength	Total
Number of schools	26	28	54
Number of students	1800	2200	4000

3.5 Sample size

Sample size selection has always been of great value in research work. According to Gay et al. (2012) sample is a group of items, events or individuals that represent large groups. Quantitative studies were helpful for a researcher for making interpretations about large group numbers. For that reason, careful selection of samples and the appropriate sample size is required. In the present research study sample size explained by Cohen, Manion and Morrison (2007,2018) recommended different websites for the calculation of sample size. By lottery method of simple random sampling technique, the researcher chose desired sample size and randomly selected the slips and collected data from those chosen schools. Eleven schools were selected as sample of the study, six girls and five boys' secondary schools of Dera Ghazi Khan.

Table no.3.2

Sample size of secondary school students of Dera Ghazi Khan

Sample size	Girls	Boys	Total
Number of schools	6	5	11
Number of students	203	211	414

The total research population was 4000 while the calculated sample size was 400. There were 11 schools along with 6 girls and 5 boys sampled size of the study. Gay and Mills (2012) explained that for quantitative research 10 to 20% of the sample is representative. Thus, the researcher selected a 10% sample size from the total population.

3.7 Sampling Technique

A simple random sampling technique was used as a sampling technique in the present research study. 'Simple random sampling is a kind of sampling technique in which the researcher randomly select the sample from a given population. Each member of the population has an equal chance of being selected. Gay and Mills (2012) explained that for quantitative research 10 to 20% of the sample is representative which was 11 schools in number. From those school's researcher collected data by using a simple random sampling technique.

3.8 Research Instrument

The study was conducted on students for investigating their mental health. This tool is used for investigating the level of depression, anxiety and stress in secondary school students. Moreover, the results of students' pre-board exams were taken at the same time.

The researcher used the “Combined Depression, Anxiety, and Stress Scale (*DASS-42*; Lovibond”)), this closed-ended questionnaire for the data collection. Which have 42 items as; depression, anxiety and stress, and each variable has 14 items. Which the researcher used for data collection. The design of the depression, anxiety and stress scale (DASS) explains the results that are between mild, moderate and severe. Respondents who were between mild and moderate are considered normal, however, those who were between severe needed professional help and it is an alarming and worrying situation for them.

The depression, Anxiety and Stress scale (DASS) scale is developed by Lovibond (1995) and in a recent research study used by Ahmad et al (2021). The researcher adopted a questionnaire (DASS) Depression, Anxiety and Stress scale. The statements of the questionnaire were rated on a 5-point Likert scale. The responses were coded as 1 to 5 from strongly disagree to disagree, neutral, agree and strongly agree. The questionnaire consists of 2 parts. The first part is descriptive statistics which includes information on age, gender, name of the school and educational outcomes. The second part of the questionnaire is related to questions about depression, anxiety and stress. With a total of 42 items to investigate the impacts of mental health on the educational outcomes of secondary school students of Dera Ghazi Khan.

Table no 3.4

Coding of research instrument, depression, anxiety and stress scale (DASS-42), (Depression=D, Anxiety=A, Stress=S)

Depression	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Coding (D)	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14
Anxiety	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Coding(A)	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14
Stress	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Coding(S)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14

3.9 Educational outcomes of secondary school students

The researcher used educational outcomes sheet as a research tool to record obtained marks of each respondent. For this purpose, the researcher used 10th class Pre-Board results from schools' records of session 2021 to assess the effects of mental health on their educational outcomes. The researcher converted marks into percentages and gave coding for data analysis in SPSS.

Table no 3.4

Educational outcomes criteria of 10th class secondary school students at Dera Ghazi Khan of year 2021.

No	Percentage of Marks	Remarks	Coding in SPSS
1.	30% and above but below40%	Satisfactory	1
2.	40% and above but below50%	Fair	2
3.	50% and above but below60%	Good	3
4.	60% and above but below70%	Very Good	4
5.	70% and above but below80%	Excellent	5
6.	80% and above	Distinction	6

Table 3.4 shows the educational outcomes criteria of 10th-grade students of secondary schools at Dera Ghazi Khan in the year 2021. Researchers obtained mark sheet of their pre-board exams and converted it into percentages then gave coding numbers for data analysis on SPSS. 1 represents 30% and above but below40%, 2 represent marks between 40% and above but below50%, 3 shows marks 50% and above but below60%, 4 represent 60% and above but below70%, 5 for the 70% and above but below80% marks and 6 represent marks 80% and above.

3.10 Validity of the instrument

The researcher took permission for this instrument “The Depression, Anxiety and Stress scale (DASS) from the developer of the instrument “Lovibond” provided in the annexure (Appendix C). To evaluate the validity, the researcher circulated the questionnaire to different experts in selected universities of Islamabad and Multan. Experts’ opinions thus marked the content as

rational and legitimate. The researcher requested the experts review the content of the questionnaire. So, the questionnaire Depression, anxiety and scale (DASS) were adopted after the experts' opinions and validations. Validation certificates are attached (Appendix D).

3.11 Reliability of the instrument

The researcher did pilot testing from the respondents of the research before collecting the data. Purpose of pilot testing was to assess the relevancy and appropriateness of the research instrument in Pakistan. Through pilot testing as Souders et al. (2016) said that pilot testing is important to collect earlier data as it helps in assessing the reliability and validity. The sample was 107 students (girls and boys) who were selected and given to them questionnaire and the responses were 100. Pilot testing is important before administrating the questionnaire to collect data and it is useful to bring refinement in the instrument and check the difficulty faced by respondents in answering the items. After pilot testing, these students were not taken in actual testing.

Table no 3.5

Alpha Reliability Coefficient of DASS Instrument (N=42)

No of items	Cronbach's value
42	.902

Table 3.5 indicates the Alpha Reliability Coefficient of DASS of secondary school students. It is evident from this table that Cronbach's Alpha Coefficient is .902. It means there is good internal consistency because the generally accepted rule is that a below .60 value is not acceptable, .70-.80 is good and more than .80 is excellent.

Table no 3.6

Alpha Reliability of Depression, Anxiety and Stress

Scale	No. of items	Cronbach's Alpha
Depression	14	.775
Anxiety	14	.730
Stress	14	.716

Table no: 3.6 shows Cronbach's Alpha reliability of Depression .775, Anxiety .730, and Stress .716 indicating that the scale is acceptable for social scientific research. Zhang and Yuan (2015) claimed that other than alpha, robust measures are available like omega.

Table no 3.7

Item correlation in pilot testing of secondary school data at Dera Ghazi Khan.

Items	Correlation	Items	Correction	Items	Correction
S1	1	A3	.355**	S10	.373**
A11	.311**	D8	.358**	A14	.348**
D9	.339**	D7	.302**	D6	.352**
A4	.363**	S5	.344**	S11	.540**
D14	.344**	A13	.346**	S14	.348**
S7	.332**	A8	.318**	D4	.414**
A2	.389**	D5	.339**	S6	.401**
S9	.367**	S13	.468**	A9	.330**
A12	.446**	A7	.329**	D1	.306**
D3	.344**	D11	.416**	D2	.355**
S2	.346	A5	.339**	S4	.382**
S12	.329**	D10	.332**	A10	.348**
D12	.373**	S3	.386**	A1	.340**
S8	.346**	A6	.363**	D13	.318**

Item correlation is the Pearson correlation coefficient calculated for the pairs of scores. The greater value of the coefficient shows a positive correlation. Values 0 to 30 indicate good discrimination. Field (2009) described that all question items should be correlated with a total score in reliable scales. The correlation between all items of the DASS questionnaire was found significant. The range of correlation was between (.302**) to (.540**).

Table No 3.9
Inter section correlation of Depression Anxiety stress scale

	Depression	Anxiety	Stress
Depression	1		
Anxiety	.820**	1	
Stress	.802*	.786**	1

** . Correlation is significant at the 0.01 level (2-tailed).

The highest correlation between depression and anxiety was found (.820**). The lowest correlation between anxiety and stress was (.802**).

3.12 Objectives, hypothesis and statistical tests

Table no 3.10

Brief in alignment of objectives, hypothesis and statistical tests.

Objectives	Hypothesis and Research questions	Statistical tests
<p>Objective 1: To assess the students' mental health (depression, anxiety, and stress) at the secondary school level.</p>	<p>1a. To assess the depression levels of secondary school students at Dera Ghazi Khan.</p> <p>1b. To assess the anxiety levels of secondary school students at Dera Ghazi Khan.</p> <p>1c. To assess the stress levels of secondary school students at Dera Ghazi Khan.</p>	Mean
<p>Objective 2: To identify the educational outcomes of students at the secondary school level</p>		Percentage

Objective 3	H₀₁: There is no significant	Independent t-test
To identify the gender base difference of students' mental health at the secondary school level	gender base difference among students' mental health (Depression, anxiety and stress) at the secondary school level.	
	H_{01a} There is no significant gender base difference in depression levels at these secondary school students' level.	
	H_{01b} There is no significant gender base difference in anxiety levels at the secondary school students.	
	H_{01c} There is no significant gender base difference in stress levels at the secondary school students.	

Objective 4

To analyse the effect of **H₀2**: There is no significant Linear Regression analysis mental health (depression, effect of students' mental anxiety, and stress) on the health on the educational educational outcomes of outcomes at the secondary students at the secondary school level. school level.

H₀2 (a): There is no significant effect of depression on the educational outcomes of students at the secondary school level.

H₀2 (b): There is no significant effect of anxiety on the educational outcomes of students at the secondary school level.

H₀2 (b): There is no significant effect of stress on the educational outcomes of students at the secondary school level.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

The purpose of the present study was to investigate the Effects of mental health on the educational outcomes of secondary school students at secondary school level D G KHAN, Pakistan. The chapter on data analysis contains information about appropriate statistical tests used for testing the hypothesis and for achieving the objectives of this study. For this purpose, descriptive and inferential statistical tests were applied including frequencies, percentages and maximum score, minimum score, mean, t-test and linear regression analysis. After applying appropriate statistical techniques using the SPSS 23rd version data was presented in tables which make it easy to understand. A sample of 400 students of secondary schools with different age groups and gender took part in the present study. This chapter is based on the hypothesis and objectives of the study. A quantitative research paradigm with a descriptive research design was selected keeping in view the nature of the research. The depression, anxiety and stress scale (DASS) was used as a tool for the study. This scale was developed by Lovibond (1995) and recently used by Ahmad et al (2021). This scale was adopted by studying relevant literature and model. It consists of three subscales, the first subscale was related to depression, the second subscale was based on anxiety and the third subscale was related to stress. The instrument of research was based on a 5-point Likert scale (5= Strongly Agree, 4= Agree, 3= Neutral, 2=Disagree,1= Strongly Disagree). However, 400 questionnaires were used for data analysis. The questionnaire consists of 42 items to evaluate the effects of mental health on the educational outcomes of secondary school students.

Section 1

4.1 Descriptive Statistics

Table 4.1

Gender-wise demographics (N=400) of secondary school students at Dera Ghazi Khan

Sr. No	Gender	Frequency	Percentage %
1	Male	201	50.3
2	Female	199	49.7
	Total	400	100

Table 4.1 displayed the gender-wise distribution of secondary school students. The table shows that 49.7% of respondents are males while 50.3% of respondents are females. So male respondents are more in number as compared to female respondents.

Labelled diagram of gender-based difference at secondary school level of Dera Ghazi Khan

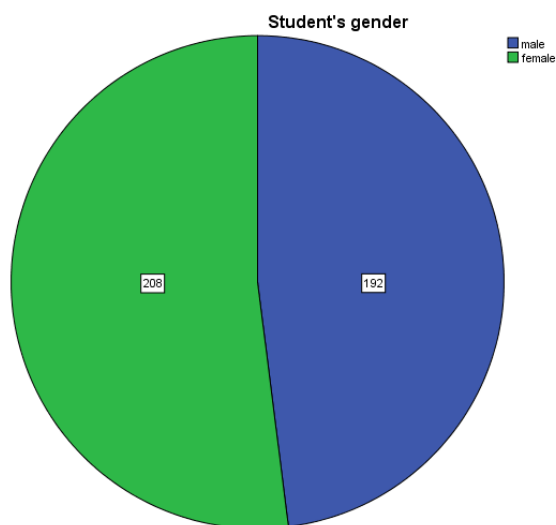


Figure no: 4.1

This diagram shows the difference between male and female respondents, the right side of the diagram in blue colour showed male respondents and the left side revealed the female's strength. Males (201) are to some degree higher than females (199).

Table No. 4.2

Frequency distribution age wise of secondary school students at Dera Ghazi Khan

Sr. No	Age range	Frequency	Percentage %
1	13-14	9	2.2
2	15-16	138	33.9
3	17-18	219	53.8
4	18+	34	8.4

Table 4.2 shows that there are only 2.2% of respondents are laying in the age group of 13-14. The table also reveals that 33.9% of respondents are in the age group of 15-16 and the maximum number of respondents (53.8%) were in the age group of 17-18. Moreover, 8.4% of respondents are between 18+ years of age.

Labelled diagram showed the Frequency distribution age wise of secondary school students at Dera Ghazi Khan

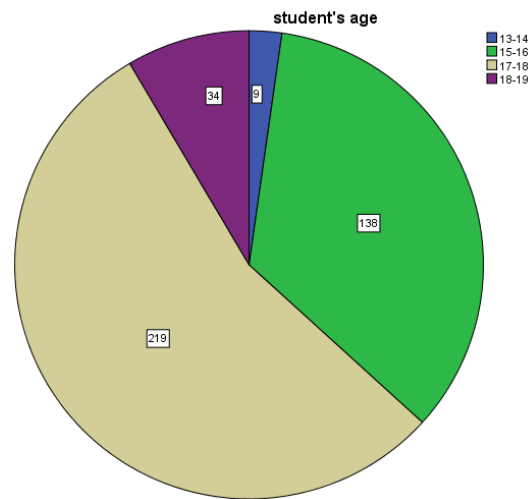


Figure no: 4.2

The maximum number of respondents was in the age group of 17-18 years which showed in the light brown colour of the diagram, and the green colour of the diagram showed 2nd maximum number of the age group which was between 15-16 years. There were only 9 respondents of age between 13-14 in purple and 34 of age 18+ respondents in blue colour.

Section 2

4.2 Inferential Statistics

- Objective No:1.** To assess the students' mental health, depression, anxiety and stress, at secondary school level, Dera Ghazi Khan.

Table No. 4.4 Students' mental health (depression, anxiety and stress) at secondary school level of Dera Ghazi Khan.

Sr. No	Variables	Mean	Remarks
1	Depression	3.44	Neutral
2	Anxiety	3.27	Neutral
3	Stress	3.69	Near to Agree

Table No: 4.4 described the mean values of depression, anxiety and stress. The mean value of depression was 3.44 indicating that responses were neutral. Whereas the mean value of anxiety was 3.27 which also showed neutral responses and stress was 3.69 indicating that mostly students agreed. The researcher used a 5-point Likert scale from strongly disagree to strongly agree ranging from 1 to 5 was used for data collection. Results indicated that depression and anxiety levels were lower than stress levels.

Objective no: 2 To identify the educational outcomes of students at secondary school level, Dera Ghazi Khan.

Table No: 4.5

Educational outcomes criteria of 10th class secondary school students at Dera Ghazi Khan.

No	Percentage of Marks	Frequency	Percentage
1.	30% and above but below 40%	11	2.7
2.	40% and above but below 50%	74	18.5
3.	50% and above but below 60%	158	39.4
4.	60% and above but below 70%	129	32.2
5.	70% and above but below 80%	21	5.2
6.	80% and above	7	2

Table no:4.5 shows the frequency and percentage of 10th-class secondary school students results. It highlighted that the maximum number of students' results were between 50% and above but below 60% with 39.4%. in chapter 3 table no:3.5 shows its good remarks. The second maximum number of students' results were between 60% and above but below 70%, and a frequency of 32.2 indicates good remarks. Fair remarks for the 18.5% which were between 40% and above but below 50%, and 5.2% were excellent in their remarks. Moreover 2.7% for satisfactory and 2% distinction remarks with 80% and above results in their pre-board exams.

Objective No: 3 To identify the gender-based differences of students' mental health (depression, anxiety and stress) at secondary school level, Dera Ghazi Khan.

H₀₁: There is no significant gender base difference among students' mental health (Depression, anxiety and stress) at secondary school level, Dera Ghazi Khan.

Table no: 4.6

Comparison of gender-base difference of student's mental health of secondary school level at

Variable	Groups	N	Mean	t	df	sig.
Mental Health	Male	192	144.70	.882	398	.000
	Female	208	146.67			

Dera Ghazi Khan.

Table no:4.6 showed the t value .882 about the gender wise difference gender base difference in students' mental health at the secondary school level, it found significant at a .000 it shows that there is no significant effect on mental health, df value is 398. The results of the present study concluded that there is a significant difference in student's mental health among male and female students at secondary school level.

Thus the null hypothesis's H₀₁ that there is no significant difference between overall educational outcomes of male and female students at secondary school level is reject.

H_{01a}: There is no significant gender base difference in the depression level of secondary school students at Dera Ghazi Khan.

Table no: 4.6.1 *Comparison of gender base difference in depression level of secondary school students at Dera Ghazi Khan.*

Variable	Students gender	n	Mean	T	df	sig.
Depression	Male	192	48.05	.309	398	.000
	Female	208	48.34			

The above table shows that t value .309 about the gender wise difference in depression are found , df value 398 and significant value a .000 it shows that there is significant effect on mental health. The results of the present study concluded that there is a significant difference in depression among male and female students at secondary school level. Thus the null hypothesis that there is no significant gender-based difference in depression level of secondary school students is rejected.

H01b: There is no significant gender base difference in the anxiety level of secondary school students at Dera Ghazi Khan.

Table no: 4.6.2 Comparison of gender base difference in anxiety level of secondary school students at Dera Ghazi Khan.

Variable	Students gender	N	Mean	t	df	Sig.
Anxiety	Male	192	44.53	3.727	398	.001
	Female	208	47.18			

The above table shows that t value 3.727 about the gender wise difference in anxiety are found, df value is 398 and significant at a .001 it shows that there is significant effect on mental health.

The results of the present study concluded that there is a significant difference in anxiety among male and female students at secondary school level. Thus the null hypothesis H01b that there is no gender base difference in anxiety level of secondary school students at Dera Ghazi Khan is rejected.

H_{01c}: There is no significant gender base difference in the stress level of secondary school students at Dera Ghazi Khan.

Table no: 4.6.3 *Comparison of gender base difference in stress level of secondary school students at Dera Ghazi Khan.*

Variable	Students gender	N	Mean	t	df	Sig.
Stress	Male	192	52.13	1.040	398	.066
	Female	208	51.24			

Descriptive statistics (Table no: 4.6.3) that value of t (1.040) is statistically significant at a .066 it shows that there is no significant effect on mental health. The results of the present study concluded that there is a significant difference in stress among male and female students at secondary school level. Thus the null hypothesis's H_{01c} that there is no gender base difference in stress level of secondary school students at Dera Ghazi Khan. So null hypothesis is accepted.

Objective No:4 To analyse the effects of mental health (depression, anxiety and stress) on the educational outcomes of students at secondary school level, Dera Ghazi Khan.

H₀₃: There is no significant effects of student's mental health on educational outcomes at secondary school level.

Table no 4.7 *To analyse the effect of mental health (depression, anxiety and stress) on educational outcomes of students at secondary school level of Dera Ghazi Khan.*

Independent variable	Dependent variable	R²	β	t value	sig.
Mental health	Educational outcome	.149	.006	3.008	.003

Table no: 4.7 showed the linear regression analysis of students' mental health and educational outcomes of secondary school students at Dera Ghazi Khan. The regression analysis indicated that mental health which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.003), $R^2 = (.149)$ indicated that 14.9 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Mental health).

So the null H₀ that there is no significant effect of student's mental health on educational outcomes at secondary school level is rejected.

Objective No:4 (a)To analyse the effect of depression on educational outcomes of students at secondary school level of Dera Ghazi Khan.

Table no 4.7.1

To analyse the effect of stress on educational outcomes of students at secondary school level of Dera Ghazi Khan.

Independent variable	Dependent variable	R²	β	t value	sig.
Depression	Educational outcome	.009	.095	1.909	.057

Table no: 4.7.1 showed the linear regression analysis of students' depression levels and educational outcomes of secondary school students at Dera Ghazi Khan. In this table regression analysis indicated that Depression which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.057), $R^2 = (.009)$ indicated that .9 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Depression).

So the null hypothesis H_0 that there is no significant effect of depression on educational outcomes of students at secondary school level is accepted.

Objective No:4 (b) To analyze the effect of anxiety on educational outcomes of students at secondary school level of Dera Ghazi Khan.

Table no 4.7.2

To analyze the effect of anxiety on educational outcomes of students at secondary school level of Dera Ghazi Khan

Independent variable	Dependent variable	R ²	β	t value	sig.
Anxiety	Educational outcome	.024	.156	3.140	.002

Table no: 4.7.2 showed the linear regression analysis of students' anxiety levels and educational outcomes of secondary school students at Dera Ghazi Khan. Linear regression analysis indicated that Anxiety which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.002), $R^2 = (.024)$ indicated that 2.4 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Anxiety).

So the null hypothesis H_0 that there is no significant effect of anxiety on educational outcomes of students at secondary school level is rejected.

Objective No:4 (c) To analyze the effect of stress on educational outcomes of students at secondary school level of Dera Ghazi Khan.

Table no 4.7.3

To analyze the effect of stress on educational outcomes of students at secondary school level of Dera Ghazi Khan.

Independent variable	Dependent variable	R²	β (Coefficients)	t value	sig.
Stress	Educational outcome	.024	.154	3.118	.002

Table no: 4.7.3 showed the linear regression analysis of students' stress levels and educational outcomes of secondary school students at Dera Ghazi Khan. Results of the linear regression test showed that Stress which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.002), $R^2 = (.024)$ indicated that 2.4 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Stress).

So the null hypothesis H_0 that there is no significant effect of stress on educational outcomes of students at secondary school level is rejected.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 SUMMARY

The current study was conducted on the effects of mental health on the educational outcomes of students at the secondary school level. This dissertation writing targets the students of Dera Ghazi Khan. The particular concern of this work was to assess the relationship between mental health and educational outcomes along with their feedback on the impact of mental health at the secondary school level. This research was also about checking differences between male and female students. Objectives of the study were: 1. to assess the students' mental health (depression, anxiety and stress) at the secondary school level, 2. To identify the educational outcomes of students at the secondary school level, 3. To compare the gender-based difference in students' mental health at the secondary school level, 4. To analyze the effect of mental health (depression, anxiety and stress) on the educational outcomes of students at the secondary school level. For this purpose, data were collected from 400 secondary school students which included males and females. Data were collected from 10 schools in Dera Ghazi Khan. This research also pays attention to urban and rural area schools.

Moreover, the present research used the quantitative research method to gain accurate and numeric results. Meanwhile, the descriptive method was used to analyse results numerically and clearly. To target, a specific group of the secondary school population, a sample of 10% population was selected by using a simple random sampling technique. However initial sample included 100 students. The DASS scale was developed by Lovibond (1995) and used by Ahmad

et al (2021). The first subscale was related to depression, the second subscale was based on anxiety and the third subscale was related to stress. During this research, the standardized instrument used contains 42 items. Furthermore, the research in the selected schools was conducted after getting permission from the school's principals. Afterwards, the students were asked to fill out the questionnaire. Thus, the primary data was collected after conducting this survey and data was statistically analysed and in-depth analysed on SPSS software. After statistical analysis, the t-test was run for the data to identify the significance level of the variables. The reduced significance values showed that the hypothesis was rejected. There was a statistically significant difference based on age, gender, and area of secondary school students.

5.2 Findings Related with Effects of Mental Health on Educational Outcomes of Students

The findings of this research conclude the following:

5.2.1 Part One Descriptive Analysis of Respondents

1. The finding showed that 400 secondary school students, participated in the research. Table 4.1 revealed that 199 (49.7%) were male and 208 (51.1%) were female participants of the current research study from public schools of Dera Ghazi Khan.
2. Table 4.2 indicated Table 4.2 shows that there are only 2.2% of respondents are laying in the age group of 13-14. The table also reveals that 33.9% of respondents are in the age group of 15-16 and a large number of respondents (53.8%) were in the age group of 17-18. Moreover 8.4% of respondents are between 18+ years of age from public schools of Dera Ghazi Khan
3. Table No. 4.3 represents the frequency distribution of urban and rural areas of D.G. KHAN schools. It shows that 58% of respondents are from an urban area and 42% of

respondents are from a rural area for the study. Results indicate that the percentage of Urban areas is higher than the rural area of respondents at the secondary school level in Dera Ghazi Khan.

4. Table no: 4.4 shows the frequency and percentage of 10th-class secondary school students' results. It highlighted that the maximum number of students' results were between 50% and above but below 60% with 39.4%. in chapter 3 table no:3.5 shows its good remarks. The second maximum number of students' results were between 60% and above but below 70%, and a frequency of 32.2 indicates good remarks. Fair remarks for the 18.5% which were between 40% and above but below 50%, and 5.2% were excellent with their remarks. Moreover 2.7% for satisfactory and 2% distinction remarks with 80% and above results in their pre-board exams.

5.2.2 Part two findings of Inferential Statistics

Objective no: 1

To assess the students' mental health overall depression, anxiety and stress at the secondary school level of Dera Ghazi Khan. Table No:4.5 described the mean values of depression, anxiety and stress. The mean value of depression was 3.44 indicating that responses were neutral or near to agree. Whereas the mean value of anxiety was 3.27 which showed neutral responses and stress was 3.69 indicating that most students agreed. The researcher used a 5-point Likert scale from strongly disagree to strongly agree ranging from 1 to 5 was used for data collection. Results depression and stress agreed, neutral for anxiety.

Objective no:2

To identify the educational outcomes of students at the secondary school level of Dera Ghazi Khan. Table no:4.5 shows the frequency and percentage of 10th-class secondary school students results. It highlighted that the maximum number of students' results were between 50% and above but below 60% with 39.4%. in chapter 3 table no:3.5 shows its good remarks. The second maximum number of students' results were between 60% and above but below 70%, and a frequency of 32.2 It indicates very good remarks. Fair remarks for the 18.5% which were between 40% and above but below 50%, and 5.2% were excellent in their remarks. Moreover 2.7% for satisfactory and 2% distinction remarks with 80% and above results in their pre-board exams.

The results show that 158 secondary school students were between 50% and above but below 60% which is the maximum number and its remarks are 'Good' and the second maximum number of marks between 60% and above but below 70% indicates very good remarks. So their educational outcomes are between good and very good remarks.

Objective No: 3

To compare the gender-based difference in students' mental health at the secondary school level of Dera Ghazi Khan.

Table no:4.6 shows that there was gender base significant difference in students' mental health at the secondary school level.that t value .882 about the gender vise difference in student's mental health are found significant at a .000it shows that there is no significant effect on mental health, df value is 398. The results of the present study concluded that there is a significant difference in student's mental health among male and female students at secondary school level.

Thus the null hypothesis's H01 that there is no significant difference between overall educational outcomes of male and female students at secondary school level is rejected.

Objective 3a ,From depression the value of t was recorded .309 about the gender wise difference in depression are found significant at .000 it shows that there is significant effect on mental health. Thus the null hypothesis that there is no significant gender-based difference in depression level of secondary school students at Dera Ghazi Khan is rejected.

Objective 3b ,From anxiety the value of t was recorded 3.727 about the gender wise difference in anxiety are found significant at .001 significant level. Thus the null hypothesis's H01b that there is no gender base difference in anxiety level of secondary school students at Dera Ghazi Khan is rejected.

Objective 3c, From stress the value of t 1.040 about the gender wise difference in stress are found significant at a .066 significant level. Thus the null hypothesis's H01c that there is no gender base difference in stress level of secondary school students at Dera Ghazi Khan is accepted.

Objective No:4 To analyse the effect of mental health (depression, anxiety and stress) on the educational outcomes of students at the secondary school level of Dera Ghazi Khan.

Table no: 4.7 showed the linear regression analysis of students' mental health and educational outcomes of secondary school students at Dera Ghazi Khan. The regression analysis indicated that mental health which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.003), $R^2 = (.149)$ indicated that 14.9 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Mental health).

So the null H_0 that there is no significant effect of student's mental health on educational outcomes at secondary school level is rejected.

Table no: 4.7.1 showed the linear regression analysis of students' depression levels and educational outcomes of secondary school students at Dera Ghazi Khan. In this table regression analysis indicated that Depression which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.057), R^2 =(.009) indicated that .9 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Depression).

So the null hypothesis H_0 2a that there is no significant effect of depression on educational outcomes of students at secondary school level is accepted.

Table no: 4.7.2 showed the linear regression analysis of students' anxiety levels and educational outcomes of secondary school students at Dera Ghazi Khan. .Linear regression analysis indicated that Anxiety which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.002), R^2 =(.024) indicated that 2.4 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Anxiety).

So the null hypothesis H_0 2b that there is no significant effect of anxiety on educational outcomes of students at secondary school level is rejected.

Table no: 4.7.3 showed the linear regression analysis of students' stress levels and educational outcomes of secondary school students at Dera Ghazi Khan. Results of the linear regression test showed that Stress which is independent variable has significant effect on Educational outcomes

of secondary school students which is dependent variable. (Sig=.002), $R^2 = (.024)$ indicated that 2.4 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Stress).

So the null hypothesis H_0 that there is no significant effect of stress on educational outcomes of students at secondary school level is rejected.

5.3 Discussions

The researcher conducted to investigate the effects of mental health on the educational outcomes of secondary school students. This was a quantitative study and descriptive. The public sector of secondary schools at D.G. KHAN was taken as population. Questionnaire was given to 414 students and rate of return was 96% students participated in this research (girls and boys) from urban and rural areas of secondary schools in Tehsil D.G. KHAN. Research objectives and hypothesis demanded statistical operations of the mean score, percentage, t-test and linear regression. regression analysis indicated that Depression which is independent variable has significant effect on Educational outcomes of secondary school students which is dependent variable. (Sig=.057), $R^2 = (.009)$ indicated that .9 percent variation in dependent variable (Educational outcomes of secondary school students) described by dependent variable (Depression).

Findings of descriptive research represented that secondary school students have a higher level of stress. Through closed ended questionnaire researcher find out that students were effected by stress. However, the level of depression was near to agree and stress was neutral. Hence, the mental health effects student's educational outcomes as researchers study was conducted at

university-level students and results found that significant gender-based differences were present between girls and boys (Uzma, 2017). Boys have more positive mental health as compared to females. Students face many difficulties due to stress, anxiety and depression and those affect their educational outcomes.

Another research was conducted in Norway on university students, purpose of the research was to investigate the mental health issues and performance in academics of university students. The researcher concluded that there were 30% of students face high levels of mental problems (KirstiGrotan 1, 2019).

Findings of objective 2 showed that 50 to 60 per cent of students were in good and very good remarks in their 10th class pre-board exams of secondary school students at a public level. Academic achievement is the one of important outcomes of the formal education system and it measures the level of students' abilities and where they fall. Policymakers may investigate the educational outcomes and other social factors that were affecting students and disturbing their outcomes. A study was conducted that includes climate effects, depression, stress, self-efficacy, less academic problems and supportive learning environments that were positively related to the academic achievements of students. However, factors continued regardless of depression and a higher level of stress (Henry et al (2019).

A survey was conducted related to mental health issues (stress & anxiety) and factors that were affecting students' mental health. Researchers concluded that academic stress was the one reason for students' mental health issues. It effects on academic performance of the students; with mental health issues, they could not perform well in their academics (Albers et al, 2017).

Findings of objective 3 showed that gender base differences in mental health, male and female secondary school students' overall effects of mental that shows the level of depression, anxiety

and level of stress were higher in female than male secondary school students. The gender-based difference in mental health revealed that women have significantly higher frequency levels of depression and anxiety as compared to male students (Droogenbrock, 2018).

Objective 4 was about the effect of mental health (depression, anxiety and stress) on the educational outcomes of secondary school students. It may increase if their mental health problems will solve. It could be many other reasons but one of the major problems that researchers highlighted that their mental health. Mainly stress was higher among them and their performance was average which was between 50% to 60%. That could be increased if the effects of mental health on them were decreased. Mecan et al, found students with good mental health have good marks in academics. Better mental health develops the self-efficiency of the students, which results in upgrading students' academic performance. Less stress increases the level of satisfaction towards their life and performance in school.

5.4 Conclusion

Conclusions have been drawn based on the findings.

It is concluded that there was a higher score in stress as compared to depression and anxiety among secondary-level students. The academic performance of school-level students was affected by mental health problems. Respondents those were a high score of depression, anxiety and stress and scored lower in pre-board examinations. The difference in mental health on basis of gender among school-level students was compared and it was found that there was a significant difference between male and female respondents related to the stress level. It was revealed that female was more affected by stress than male and male was good with mental health problems.

5.5 Recommendations

Students may participate in such activities that may help to improve their mental health and give them awareness about mental health, classroom activities and extra co-curricular activities, games may decrease their mental health issues. Because the level of stress was higher in them and those students got lower scores as well in pre-board exams.

It is recommended that schools may provide setup and sufficient training to teachers to give them environment that influence their mental health and decrease the risks of mental health problems protect student safety and maintain a healthy school environment.

Educational institutions may involve students in creative activities, and provide facilities for extracurricular activities same as in boys' schools. These are good for physical and mental health. Moreover, most families not allowed girls to go out, which also increased their stress and anxiety. If schools provide them with the ground to prove their abilities it will decrease their level of stress.

Institutions may involve parents in school events to develop parent-teacher, student-teacher and parent-child interactions that may encourage students to get good marks and make them emotionally intelligent.

Educational institutions may work on school students' cognitive development and their social behaviour. It would help mental health professionals to identify the basic problems and help them to eradicate them.

It is recommended that female students may be provided in schools with extra-curricular activities; games, debates, excursion trips etc.

5.6 Recommendations for future researchers

There is always room for improvement. The research may be carried out to:

1. Present study was to assess the effects of mental health on the educational outcomes of secondary school students. Future research studies may explore these effects on a different population.
2. The secondary school students of Dera Ghazi Khan participated in the present research. Future research may be asses at college or university-level students.
3. Future research should also asses on comparison of academic pressure and mental health at the university level.
4. Researchers should conduct future studies to investigate environmental factors affecting students' mental health at the college level.
5. Future researchers will contribute to this research and will do more work-related variables and other factors in this field to provide a further broader perspective on this study. Moreover, this study's effects of mental health on the educational outcomes of students add to the interest of students to investigate more about mental health effects at different levels of education.

5.5 Limitations of the study

This study was limited by reduced time and sample size. Due to the reduced time limit of the degree, the researcher had to conduct and formulate research within a minimum period. For the present study researcher used a questionnaire for data collection from respondents while other research instruments like interviews etc. were neglected. Moreover, only Dera Ghazi

Khan's tehsil was assessed, and selected the sample was to meet the criteria of generalized results. It was included girls' and boys' secondary schools. The sample was 400 students and the researcher conducted responses from 10 secondary schools in Dera Ghazi Khan including girls and boys. Therefore, the researcher was not able to assess more samples and could not extend her study because of financial constraints and the limitation of time.

Findings, conclusion and recommendations:

Objectives	Findings	Conclusion	Recommendations
1. To assess the students' mental health (depression, anxiety and stress) at secondary school level of Dera Ghazi Khan.	The mean value of depression was 3.44 indicated that responses were neutral or near to agree. Whereas mean value of anxiety was 3.27 which showed neutral responses and stress was 3.69 indicated that mostly students were agreed.	It means there were significant effects of stress on 10 th class secondary school students and there were neutral effects of depression and anxiety on secondary school students of Dera Ghazi Khan.	If schools provide them ground to proof their abilities it will definitely decrease their level of stress.
1a. To assess the depression level of secondary school students at Dera Ghazi Khan.			
1b. To assess the anxiety level of secondary school			

<p>students at Dera Ghazi Khan.</p> <p>1c. To assess the stress level of secondary school students at Dera Ghazi Khan.</p>			
<p>2. To identify the educational outcomes of students at secondary school level of Dera Ghazi Khan.</p>	<p>It highlighted that the maximum number of students' results were between 50% and above but below 60% with the 39.4%. in chapter 3 table no:3.5 shows its good remarks. Second maximum number student's results were between 60% and above but below 70%, and frequency 32.2 It indicates very good remarks.</p>	<p>Second objective shows that the results percentage of the 10th class students and those were between 50% to 60% with the remarks of Good and Very Good.</p>	

<p>3. To compare the gender-based difference of student's mental health at secondary school level of Dera Ghazi Khan.</p>	<p>Findings of the study was the male students at secondary school level obtained mean score 144.70 for male and mean score of female students was 146.67.</p>	<p>. It concluded that there was difference between male and female students. So, the null hypothesis of there was no gender-based difference was rejected.</p>	<p>Educational institutions may work on school student's cognitive development, their social behavior. It would help mental health professionals to identify the basic problems and help them to eradicate it.</p>
<p>4.To analyze the effect of mental health i.e. depression, anxiety and stress on educational outcomes of students at secondary school level of Dera Ghazi Khan.</p>	<p>According to model summary of linear regression analysis of student's mental health and educational outcomes of secondary school students at Dera Ghazi Khan. The results were the correlation R is .146 and R-Square is .021.</p>	<p>The results of linear regression analysis show that there was positive relationship between mental health and educational outcomes of secondary school students.</p>	<p>It is recommended that female students may be provided in schools extra-curricular activities; games, debates, excursion trips etc.</p>

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Appendix A



**NATIONAL UNIVERSITY OF MODERN LANGUAGES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF EDUCATION**

M.L.1-3/Edu/2021

Dated: 02-07-2021

To: Rehana Rahim,
1793/MPhil/Edu/F-19

Subject: **APPROVAL OF M.PHIL THESIS TOPIC, AND SUPERVISOR**

1. Reference to Letter No, M.L.1-3/Edu/2021/, dated 16-02-2021, the Higher Authority has approved the topic and supervisor on the recommendation of Faculty Board of Studies vide its meeting held on 11 February 2021 & Board of Advanced Studies and Research dated 02-06-2021

a. **Supervisor's Name & Designation**

Dr. Farkhanda Tabassum,
Assistant Professor,
Department of Education NUML, Islamabad.

b. **Topic of Thesis**

Effect of Mental Health on Educational Outcomes of Students at Secondary School Level

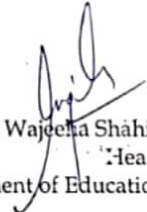
2. You may carry out research on the given topic under the guidance of your Supervisor and Submitted the thesis for further evaluation within the stipulated time. It is to inform you that your thesis should be submitted within described period by **31st July 2022** positively for further necessary action please.

3. As per policy of NUML, all MPhil/PhD Thesis is to be run on turnitin by QEC of NUML before being sent for evaluation. The university shall not take any responsibility for high similarity resulting due to thesis run from own sources.

4. Thesis is to be prepared strictly on NUML's format that can be taken from Coordinator, Department of Education

Telephone No: 051-9265100-110 Ext: 2090

E-mail: hod-edu@numl.edu.pk


Dr. Wajeeha Shahid
Head,
Department of Education

CC:

Dr. Farkhanda Tabassum

Ms. Rehana Rahim

Appendix B

Research Instrument

Serial no: _____

DASS (Depression, Anxiety, Stress) developed by Lovibond and recent research study used by Nasar Ahmad (Ahmad et al,2021).

Dear Respondent,

I'm MPhil scholar (Education) working on my research “effects of educational outcomes at secondary school level “. You are requested to fill the attached questionnaire. The first part of questionnaire consists of demographics information. The remaining part of the questionnaire deals with the depression, anxiety and stress scale at secondary school level.

It is assured that your response will be kept confidential and will not be disclosed to any person or authority. The questionnaire is developed to collect the data for my research work only.

Rehana Rahim

MPhil Scholar (Education)
Department of Education,
National University of Modern Languages,
Islamabad, Pakistan

Demographics:

a.	Gender	Male 1		Female 2	
b.	Age (years)	13-14 1	15-16 2	17-18 3	18-19 4
c.	Area	Urban 1		Rural 2	
d.	Name of the school				

Instructions:

You are requested to give your responses against the options ranging from 1 to 5 indicating to your preferences of responses, 1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree.

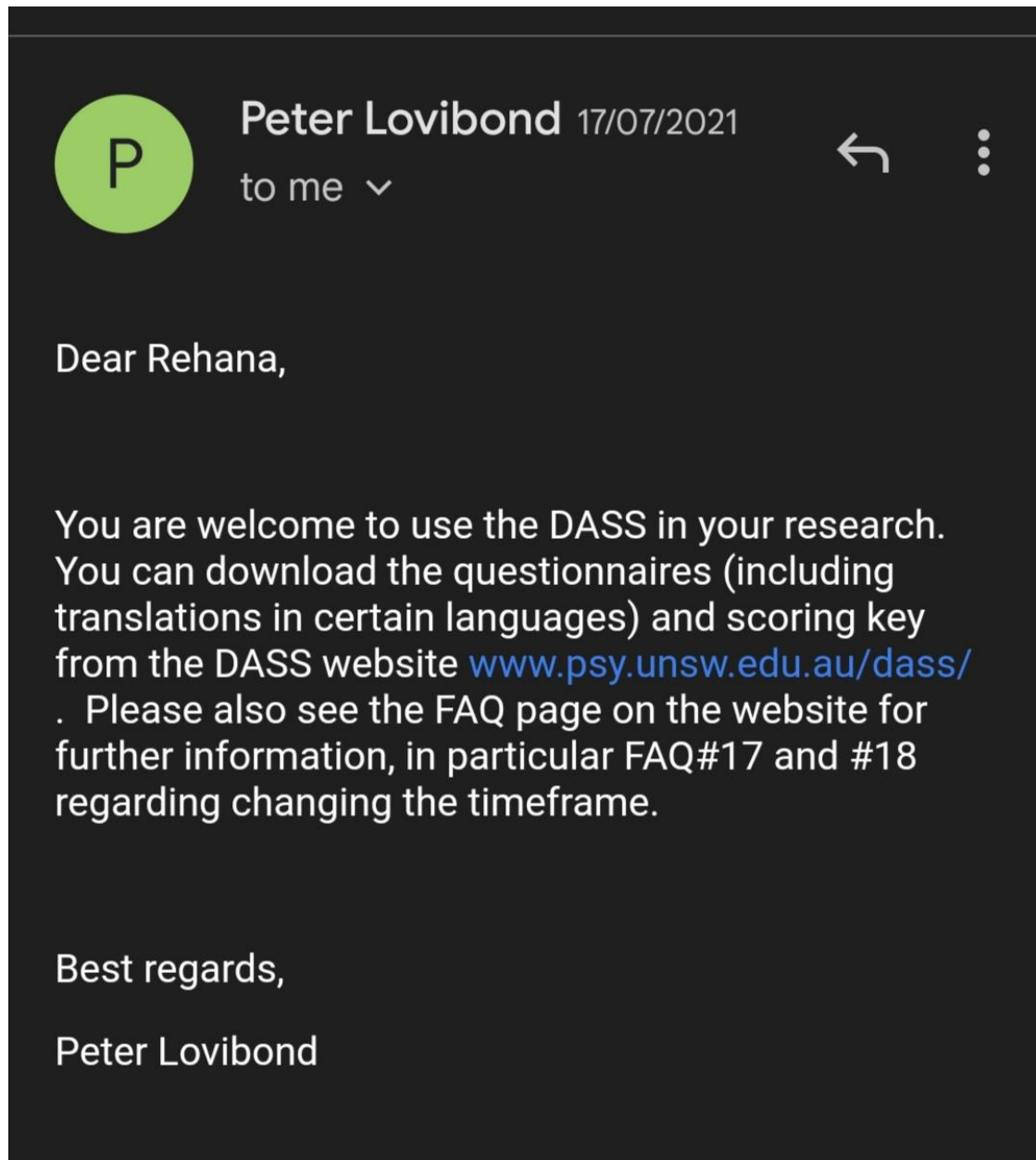
DASS (Depression, Anxiety, Stress scale)

S/No	Code No	Statement	SD	D	N	A	SA
			1	2	3	4	5
1	S1	I found myself getting upset by quite trivial things	1	2	3	4	5
2	A11	I was aware of dryness of my mouth	1	2	3	4	5
3	D9	I couldn't seem to experience any positive feeling at all	1	2	3	4	5
4	A4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	1	2	3	4	5
5	D14	I just couldn't seem to get going	1	2	3	4	5
6	S7	I tended to over-react to situations	1	2	3	4	5
7	A2	I had a feeling of shakiness (eg, legs going to give way)	1	2	3	4	5
8	S9	I found it difficult to relax	1	2	3	4	5
9	A12	I found myself in situations that made me so anxious I was most	1	2	3	4	5
10	D3	I felt that I had nothing to look forward to	1	2	3	4	5
11	S2	I found myself getting upset rather easily	1	2	3	4	5
12	S12	I felt that I was using a lot of nervous energy	1	2	3	4	5
13	D12	I felt sad and depressed	1	2	3	4	5
14	S8	I found myself getting impatient when I was delayed in any way (e.g., lifts, traffic lights, being kept waiting)	1	2	3	4	5
15	A3	I had a feeling of faintness	1	2	3	4	5
16	D8	I felt that I had nothing to look forward to	1	2	3	4	5
17	D7	I felt I wasn't worth much as a person	1	2	3	4	5
18	S5	I felt that I was rather touchy	1	2	3	4	5
19	A13	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	1	2	3	4	5
20	A8	I felt scared without any good reason	1	2	3	4	5
21	D5	I felt that life wasn't worthwhile	1	2	3	4	5
22	S13	I found it hard to wind down	1	2	3	4	5
23	A7	I had difficulty in swallowing	1	2	3	4	5
24	D11	I couldn't seem to get any enjoyment out	1	2	3	4	5

		of the things I did					
25	A5	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	1	2	3	4	5
26	D10	I felt down-hearted and blue	1	2	3	4	5
27	S3	I found that I was very irritable	1	2	3	4	5
28	A6	I felt I was close to panic	1	2	3	4	5
29	S10	I found it hard to calm down after something upset me	1	2	3	4	5
30	A14	I feared that I would be "thrown" by some trivial but unfamiliar task	1	2	3	4	5
31	D6	I was unable to become enthusiastic about anything	1	2	3	4	5
32	S11	I found it difficult to tolerate interruptions to what I was doing	1	2	3	4	5
33	S14	I was in a state of nervous tension	1	2	3	4	5
34	D4	I felt I was pretty worthless	1	2	3	4	5
35	S6	I was intolerant of anything that kept me from getting on with what I was doing	1	2	3	4	5
36	A9	I felt terrified	1	2	3	4	5
37	D1	I could see nothing in the future to be hopeful about	1	2	3	4	5
38	D2	I felt that life was meaningless	1	2	3	4	5
39	S4	I found myself getting agitated	1	2	3	4	5
40	A10	I was worried about situations in which I might panic and make a fool of myself	1	2	3	4	5
41	A1	I experienced trembling (eg, in the hands)	1	2	3	4	5
42	D13	I found it difficult to work up the initiative to do things	1	2	3	4	5

Thank you for participation

Appendix C



Appendix D

Validation Certificate of Research Questionnaire



Effect of Mental Health on Educational Outcomes of Students at Secondary School Level

By

Ms. Rehana Rahim MPhil scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan.

This is to certify that questionnaire adopted by scholar for her thesis work "Effects of Mental Health on Educational Outcomes of Secondary School Students" is assessed by me. The questionnaire has 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adopted by the researcher is according to the objectives and hypotheses of the research. It assures adequate construct and content validity according to the purpose of the research and may use by the researcher for data collection with fair amount of confidence.

Validated by: *Mariam Din*

Signature: *Dr. Mariam Din*

Designation: *Assistant Professor*

Institution: *National University of Modern Languages*

Date of validation: *01/10/2021 Islamabad*

Validation certificate of Research Questionnaire



Effect of Mental Health On Educational Outcomes of Students at Secondary School Level

By Ms. Rehana Rahim

M.Phil. scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan

This is to certify that questionnaire adapted by scholar towards her thesis has been assessed by me. I found it to have been designed adequately to assess mental health of secondary school students i.e. depression, anxiety and stress. The questionnaire has 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adopted by the researcher is according to the objectives and hypothesis of the research. It is assuring adequate construct and content validity according to the purpose of the research and can be used by the researcher for data collection for the fair amount of confident.

Name: ..DR. SHAZIA ZAMIR

Designation:

Signature:

Institute:

Date of validation: ..15-07-21

Validation Certificate of Research Questionnaire



Effect of Mental Health on Educational Outcomes of Students at Secondary School Level

By Ms. Rehana Rahim MPhil scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan. This is to certify that questionnaire adopted by scholar for thesis work and it is designed to assess "Effects of Mental Health on Educational Outcomes of Secondary School Students." The questionnaire having 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adopted by the researcher is according to the objectives and hypothesis of the research. As well as it is assuring adequate construct and content validity according to the purpose of the research and can be used by the researcher for data collection, for the fair amount of confident.

Validated by: D. SAMRAT ULLAH

Designation: Assistant Professor

Signature: Samrat

Institution: B.Z.U (Department of Education)

Date of validation: 22/10/2021

Validation Certificate of Research Questionnaire



Effect of Mental Health on Educational Outcomes of Students at Secondary School Level

By Ms. Rehana Rahim MPhil scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan. This is to certify that questionnaire adopted by scholar for thesis work and it is designed to assess "Effects of Mental Health on Educational Outcomes of Secondary School Students." The questionnaire having 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adopted by the researcher is according to the objectives and hypothesis of the research. As well as it is assuring adequate construct and content validity according to the purpose of the research and can be used by the researcher for data collection, for the fair amount of confident.

Validated by: FATIMA AZIZ-SIAL
 Designation: ASST. PROF.
 Signature: [Handwritten Signature]
 Institution: B.K.U. Multan
 Date of validation: 22-10-2021

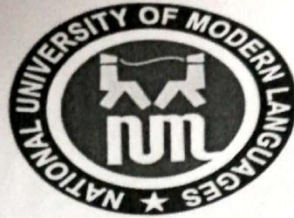
Validation Certificate of Research Questionnaire

**Effect of Mental Health on Educational Outcomes of Students at Secondary School Level**

By Ms. Rehana Rahim MPhil scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan. This is to certify that questionnaire adapted by scholar towards her thesis. It is designed to assess "Effects of Mental Health on Educational Outcomes of Secondary School Students." The questionnaire having 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adapted by the researcher is according to the objectives and hypothesis of the research. As well as it is assuring adequate construct and content validity according to the purpose of the research and can be used by the researcher for data collection, for the fair amount of confident.

Validated by: *Dr. Jameela*Designation: *lecturer*Signature: *[Handwritten Signature]*Institution: *NUML, 2nd*Date of validation: *01-09-2021*

Validation certificate of Research Questionnaire



Effect of Mental Health On Educational Outcomes of Students at Secondary School Level

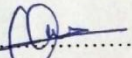
By Ms. Rehana Rahim

M.Phil. scholar, Faculty of Social Sciences, National University of Modern Languages Islamabad, Pakistan

This is to certify that questionnaire adapted by scholar towards her thesis has been assessed by me. I found it to have been designed adequately to assess mental health of secondary school students i.e. depression, anxiety and stress. The questionnaire has 3 constructs (depression, anxiety and stress). It is considered that the research instrument, adopted by the researcher is according to the objectives and hypothesis of the research. It is assuring adequate construct and content validity according to the purpose of the research and can be used by the researcher for data collection for the fair amount of confident.

Name: Dr. Duratul-Ain-Hina

Designation: Assistant Professor

Signature: 

Institute: NUML

Date of validation: 16/07/21

Appendix E

List of public (girls and boys) secondary schools in D.G. Khan district.

S#	Name of school
1	GBHSSKOT MOBARAK
2	GBHSS CITY D.G.KHAN
3	GBHSS SHADDAN LUND
4	GBHSS SAEWAR WALI
5	GBHSS NO.1 D.G.KHAN
6	GBHSS KHAKHI
7	GBHSS PAIGAH
8	GBHSS SAMINA
9	GBHSS WALAY WALA
10	GBHSS YAROO
11	GBHSS SH.SADAR DIN
12	GBHSS BANDOWANI
13	GBHSS MAKORY WALA
14	GBHSS AHMADANI
15	GBHSS KALA
16	GBHSS PACCA SHAH NAWAZ
17	GHS SHAHUD-E-APS D.G.KHAN
18	GBHSS GADAI
19	GBHSS PIR ADIL JADEED
20	GBHSS GAJUJI
21	GBHSS WADOOR
22	GBHSS CHABRI WALA
23	GBHSS TAMACHI WALA
24	GBHSS GUJJAR WALA
25	GBHSS SHEIKHANI
26	GBHSS LOHAR WALA

27	GBHSS CHURHATA PACHAD
28	GBHSS EXCELLENT LAB.D.G.KHAN
29	GHS CHORHY WALA
30	GHS BARBOCHI WALA
31	GHS KOT HAI BAT
32	GHS ISMAIL WALA
33	GHS BILHAR
34	GHS MARHATA
35	GHS PAIGAH JADEED
36	GGHS NO.1, D.G.KHAN
37	GGHS MULLA QAID SHAH (QADEEM)
38	GGHS CITY D.G.KHAN
39	GGHS MULLA QAID SHAH (QADEEM)
40	GGHS EXCELLENT LAB.D.G.KHAN
41	GGHS SHAH SADDAR DIN
42	GGHS GADAI
43	GGHS PIR ADIL
44	GGHS KHAYABAN E SARWER
45	GGHS SHADAN LUND
46	GGHS MODEL TOWN D.G.KHAN
47	GGHS KALA
48	GGHS SARWAR WALI
49	GGHS KAURA BANCHRI
50	GGHS KOT MOBARAK
51	GGHS ALYANI
52	GGHS MAMORI
53	GGHS JINNAH COLONY
54	GGHS MAKORY WALA

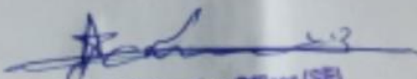
Appendix F

List of 11 Gov't (girls and boys) secondary schools in D.G. Khan district.

Sr	Name of school
1	GBHSS CITY D.G.KHAN
2	GHS SHAHJUD-E-APS D.G.KHAN
3	GBHSS NO.1 D.G.KHAN
4	GBHSS SAMINA
5	GBHSS EXCELLENT LAB D.G.KHAN
6	GBHSS CHURHATA PACHAD
7	GGHS NO.1, D.G.KHAN
8	GGHS MULLA QAID SHAH (QADEEM)
9	GGHS CITY D.G.KHAN
10	GGHS MULLA QAID SHAH (JADEED)
11	GGHS EXCELLENT LAB D.G.KHAN

Total strength = 4000

Girls = 1800 , Boys = 2200


 District Education Officer (SE)
 Dera Ghazi Khan.