ISBN: 978-93-91768-98-0

A PSYCHOEDUCATIONAL APPROACH TO IMPROVING THE MENTAL HEALTH OF COLLEGE STUDENTS

DR. SINDU PADMANABHAN

Bhumi Publishing

First Edition: 2022

A PSYCHOEDUCATIONAL APPROACH TO IMPROVING THE MENTAL HEALTH OF COLLEGE STUDENTS

(ISBN: 978-93-91768-98-0)

Author

Dr. Sindu Padmanabhan

Research and Development Centre

Bharathiar University

Coimbatore – 641046 Tamil Nadu, India

Bhumi Publishing

2022

First Edition: December, 2022

ISBN: 978-93-91768-98-0

Published by:

Bhumi Publishing,

Nigave Khalasa, Kolhapur 416207, Maharashtra, India

Website: www.bhumipublishing.com

E-mail: bhumipublishing@gmail.com

Book Available online at:

https://www.bhumipublishing.com/books/

PREFACE

The core psycho-educational principle is education has a role in emotional and behavioral change. With an improved understanding of the causes and effects of the problem, psycho-education broadens the person's perception and interpretation of the problem, and this refined view positively influences the individual's emotions and behavior. Consequently, improved awareness of causes and effects leads to improved self-efficacy (the person believing that he can manage the situation), and improved self-efficacy leads to better self-control. In other words, the person feels less helpless about the situation and more in control of himself or herself. Educating people about their mental issues can be an effective way for them to get the facts and learn effective coping strategies so that they take the steps necessary in helping themselves. Psycho-education is not a treatment; in clinical settings, psycho-education is the first step of the overall treatment plan.

ACKNOWLEDGEMENT

This Book is dedicated to my loving and caring daughter, Divya. The completion of this book has been a long journey and could not accomplish without the generous help and support of many people. My sincere thanks to the people who helped me in assorted ways to conduct the research and make this book a reality. It is my great pleasure to express my gratitude through this humble acknowledgment.

I express my sincere gratitude and indebtedness to my supervising guide Dr. S. Azmal Basha, Head Dept. of Psychology, Sri Venkateswara Arts College, Tirupati for his unwavering support and constant encouragement in bringing this work to its culmination.

I express my profound thanks to Prof. Dr. A. Velayudhan, Head of the Psychology Department, at Bharathiar University for guiding me to carry out this research work and for his valuable suggestions.

I express my sincere gratitude to Dr. K. V. Krishna, Assistant Professor of Psychology, at Bharathiar University for his help and guidance which facilitated in completing my book successfully. I would also like to thank all staff from the Department of Psychology, Bharathiar University for all the support they provided.

I am grateful and place on record my indebtedness to the Management of an undergraduate college of Mahatma Gandhi University, Kerala, to the Directors and staff, for giving me the necessary direction and opportunity to conduct my study and share information for the study. I am very much obliged and grateful to all participants for sparing their invaluable time and willingness to take the test and training program. Without their generous cooperation and readiness to help and respond, this work could not have been completed

My sincere gratitude to all my colleagues and friends who have helped me in their ways for the preparation and successful completion of this work. Once again, my thanks to everyone who has contributed in one way or the other way and helped me in the completion of my work.

- Dr. Sindu Padmanabhan

CONTENT

ABSTRACT

Depression is seen to be the most common illness around the world. The transition for students from school to university education is more difficult and stressful than general perception which requires early understanding and interventions. With the help of psychoeducational intervention, an element in behavior therapy that help to identify and change unhealthy behaviors like depression, stress, and anxiety among students and they are enabled to understand their potential, cope with the environment along with the world around, and adjust more efficiently with the fellow mates. The current study examines the effect of a three-month Psychoeducational training session on undergraduate college students' psychological depression, anxiety, and stress. One hundred students are selected for the study, out of which sixty are chosen for the psychoeducational training program. Thirty are assigned to the experimental group (n = 30) wherein they received a three-monthtraining program while the remaining are in the control group (n =30). The Depression AnxietyStress Scale (DASS 21) questionnaire is used to assess the student's psychological state before and after the training program for both groups. Importantly, a more significant reduction in psychological depression, anxiety, and stress is seen in the experimental group when compared with that of the control group.

KEYWORDS

Depression, Anxiety, Stress, Psychoeducation, Behaviour Therapy

INTRODUCTION

The introduction is presented by highlighting the aspects related to the significance of communicating or expressing depression, anxiety, and stress among students, the strategies for achieving the same for enhancing mental well-being, and the conceptual framework of the study.

Background of the study

Students form the bubbling energetic youth of society who are an asset for the future. Hence, their psychological state and quality of life are crucial aspects of their own, and that of the societal future. Graduate students across the world reported higher rates of depression and anxiety than those in the general public. From the responses recorded from 2,279 students in 26 countries, it was reported that more than 40% of the students had moderate to severe range of anxiety and depression scores.

Teresa Evans, a neuroscientist at the University of Texas Health Science Centre at San Antonio, says that the high rates reported from this study are alarming and the findingsof the study underscore the severity of the issue and the need for a response (Nature.com, 2018). Nearly 49,250 students committed suicide between the years 2011 and 2016 in India, according to the statistical report from the National Crime Records Bureau (NCRB). The report unveiled that almost 6, 654 students had committed suicide in the year 2012: 8, 423 in 2013; 8, 068 in 2014 and 8, 934 in the year 2015. The NCRB data shared by the ministry of home affairs says that this number escalated to 9, 474 in the year 2016 ("Wake up to the enormity of student suicides in India", 2018). A study shows that some of the maincauses for these suicidal deaths are enormous expectations from parents, college ragging, and inability to cope with the new atmosphere. Sometimes students ignore and nurture the mental health issues such as anxiety, depression, and stress, which in turn trigger thoughts of suicide.

Early in 2018, the president of India Shri. Ram Nath Kovind said at NIMHANS (National Institute of Mental Health and Neurosciences), it was alarming that mental health issues were also affecting the young, which were at the prime stage of their life, and that India was looking at a mental health epidemic. According to the president, "The number of Indians affected by mental health problems is larger than the population of Japan ("Wake up to the enormity of student suicides in India", 2018).

According to the data presented by the Ministry of Home Affairs in Parliament, more than 26, 000 students at School and University levels committed suicide in India between 2014 -2016. About 7, 500 students committed suicide due to failure in exams, and the rest of them due to other academic or non-academic issues (Sumi Sukanya D, 2018). More than26, 000 students at School and University levels committed suicide in India between 2014 -

2016. About 7, 500 students committed suicide due to failure in exams, and the rest of them due to other academic or non-academic issues (Sumi Sukanya D, 2018).

Almost 26 student suicides are reported every 24 hours in India. The greatest number of suicides recorded are in Maharashtra and West Bengal while no suicide records are reported in Lakshadweep (Kumar, 2018). The time spent at college can be one of the most thrilling and fruitful times in a person's life, thus opening the opportunity to acquire new knowledge, prepare for the future profession, and innovatively expose life. It can be a very challenging time for graduates, especially those who may be at higher risk of developing a psychological condition or have already been diagnosed with one.

The commencement of depression tends to peak between the ages of 15 and 24 dueto academic pressures and students are adapting emotionally to their complex life changes.The challenges faced in college, such as leaving their home for the first time, leading an independent life, formation of new relationships, irregular sleep, and being distressed with greater access to alcohol and drugs can turn out to be overwhelming for many students. A society that has most of its members below the age of 25 is indeed a youthful one. The period is considered crucial for a jump start into building a career / professional life. Stress,anxiety, and depression are seen to increase over the years among them.

Nevertheless, when anxiety becomes tremendous and interferes with an individual's daily life and ability to cope, then it is not healthy and requires intervention from a mental health expert. Generally, most people do not realize that adverse events do not always trigger stress. Anything that needs change causes stress, which may be a promotion in carrier, graduation, or marriage, or even failing an academic course, the death of a belovedone, or a confrontation with a higher authority, like a professor. For most of us, stresses are a fact of life. We may experience it excessively on some days when compared to other days, but it is with us almost every time. While stress is inevitable, we quite often overlook or reduce its effect on us, especially during the graduation years when most of them believe that no harm can befall.

Nearly 65% of Indian youngsters show early signs of depression. The rate of childhood depression among children in India ranges from 0.3% to 1.2%, according to the NMHS report (2015- 2016). A rate of 0.8% is seen to be depression among thirteen to seventeen-year-old children ("Wake up to the enormity of student suicides in India", 2018). Some of the reasons for depression in childhood include traumatic past, frequent migration, adverse life events, early relationship problems, educational setbacks, family history of mental illness or depression, and so on (World Health Organization, 2017).

The varsity also launched a helpline number in the year 2015 to offer free counseling. They also provide email-based counseling, where students can put down in black and white

their emotional issues. Feedback is delivered within 48 hours (Ghosh, 2017). A recent study conducted by the department of psychiatry, the GovernmentMedical College, Kochi, showed that one in three students experienced some form of distress during the month before conducting the survey. Nearly 10% of the students experienced extreme distress. The age group mainly includes 18-25, out of which 64.5% were women. The findings also show that the number of students brought by parents and their peer groups for psychological and psychiatric support increased (Nambudiri, 2017).

Some of the student death cases in a few colleges in Kerala (like those of Jishnu Pranoy and Mishel Shaji, have put forth a troubling idea i.e., the student does not know howto reach out for help when they are unable to handle stress. The death of these youngsters became a political issue with the social problem unaddressed. "Why don't we have an environment where a young girl or boy can tell somebody - I am going through a crisis andI need help, instead of taking the suicide path or substance abuse or falling into depression," asked psychiatrist Dr. C J John. Psychologists say that parents are usually the last to know about any issues faced by their children. Under stress, early teenagers and young adults in their early 20s attempt suicide, get addicted to drugs and show symptoms of ADHD.

The mental health issue has become one of the critical problems on college campuses. The number of students seeking support has increased sharply from 647 in the academic year 2014-2015 to 906 in 2016. The number of students who need medical transport for psychiatric evaluation has also increased from 120 to 134 in 2016.

The same survey also found that 21.9% of students were affected in their academic performance due to anxiety, leading to lower grades (Brown, 2016). One of the disturbing trends in a college student's life is the increase in stress levels faced by them (Mahmoud *et al.,* 2012). Students experience high levels of stress in predictable situations at the end of each semester, which could be stressing for exams, grade competitions, and a large volumeof data to be grasped in a small amount of time. Most of the students experience physical and psychological impairment when stress is perceived negatively. Therefore, mental wellness issues such as stress, depression, and anxiety represent a significant and emerging public health concern for which epidemiological data are required.

The Associate Professor and Director of Psychological Services and the PsychologyClinic, University of New South Wales (Vijaya Manicavasagar, 2012) stated in her article that even though there have been remarkable advances in the management of psychological health issues such as Depression, Anxiety, Stress and Mood disorders over the last decade. The increasing prevalence of depression proceeds to challenge psychologists and researchers. It was predicted by the World Health Organization (WHO) that by 2030 depression will be marked as the highest level of disability or mental disorder across the world (WHO, 2004). The various

studies conducted on the current mental health issues of students clearly show the dire need to make more resources available to fix these crises not only among the Indian student population but also across the globe.

Depression, Stress and Anxiety

This section gives details about depression, anxiety, and stress along with the types, symptoms, causes, and awareness of the same.

Depression

It is a psychological state that affects the way a person thinks, function sleeps, eats, and feels about themselves. The United Kingdom Depression (Alliance, 2009) defined depression as: 'Depression is a feeling of continuous sadness, involving feelings of helplessness and hopelessness.

It includes not only mood but also feelings of being physically ill and of not being able to think clearly. The condition of Depression is hard to define as the negative emotions associated could be different for every individual. It cannot be said that depression is "just a bad day" or feeling low or upset for a short period over some infelicitous incident. Well, none can be completely happy all the time.

Every individual goes through ups and downs in life. However, when the negative emotions and feelings of hopelessness to do anything positive with overpowering sadness affect the day-to-day life adversely, for an extended period, it is a state of depression. The period during which such emotions are high may vary from a few weeks to months and engulf a person's life activities, affecting their domestic, professional, sociable, and own lives.

The illness of depression takes control of an individual's thoughts, emotions, sensibilities, and moods leading to a direct impact on their performance, health, and functionality to lead a healthy and happy life. Considering depression to be a weakness is a misleading term as it is an acute medical condition. Correct treatment, care, and supervision are essential remedial measures to be taken, to help the individual come out of depression, as it is outside the control of the sufferer. Generally, people don't understand and realize how depressed they are.

Realization doesn't come even though they feel sad for a longer period or have been trying to come to terms by coping with their depression through diversions of keeping busy or showing more depressive signs that are more physical than emotional (Depression Alliance, 2007). Hence, it is important to understand the subtle triggers that could lead to depression eventually, causes and symptoms, etc., to completely understand and be able to recognize the condition in oneself and that in others.

Types of depression

A generic term used to define a wide series of depression conditions is clinical depression. The classification of depression is done on basis of the kind of triggers involved, symptoms exhibited, acuteness/severity of the condition along with duration. Importantly, it is necessary to note that experiences of depression are very different from one person to another. Triggers of depression may be due to many factors, incidents, and circumstances which cannot be placed into a specific category of depression. Only a proper medical diagnosis can aid in identifying and appropriating a treatment with further plans for the management of the client.

Definitions of the common five types of depression are (Depression Alliance.2007):

i. Reactive depression

This type of depression may occur immediately or may follow after a traumatic event, or difficult or highly stressful incident that the individual has gonethrough which makes them feel low in spirit, anxious, and display irritability or anger. Reactive depression may occur even after the stress is long gone. It is indeed essential to identify the stressful situations specifically that have in actuality ultimately led to depression.

This type of depression also affects mental and physical health adverselyjust like all other types of depression show their effects on health. Serious depressive emotions could result if the stress reactions and depressive reactionsand responses continue for a persistent period.

ii. Endogenous depression

The onset of the endogenous type of depression may not always be triggered by something upsetting or stressful. This is a common form of depression and those affected experience and exhibits physical symptoms like change in weight, tiredness, issues in sleeping, low spirit and self -esteem and poor concentration in activities, etc. It is difficult and sometimes not possible to identify the exact cause or the trigger of the depression, hence it is important tobe able to understand and recognize the symptoms repetitively for this type of depression.

Serious health issues may occur if this form of depression continues for a prolonged period and is left untreated. The illness could become severe in case of untoward upsetting incidents that add to the stress, which would further contribute to the deterioration of health.

iii. Manic depression (Bipolar depression)

Manic depression among people shows them experience mood swings. They may experience high and excessive energy with elation or may be low in spirit or utter despair with increasing lethargy. They may experience delusions or sometimes hallucinations. This type of depression makes its onset among teenagers especially those in their late teens or

those in early adulthood i.e. in their early twenties. This type of depression may sometimes be difficult to recognize and diagnose.

People go through all kinds of ups and downs in life, which some may not be able to handle, which in turn affects their moods that go to an extreme, causing severe harm to the environment. Treatments prescribed by specialists are to be mostly taken by sufferers of manic depression.

iv. Seasonal Affective Disorder (SAD)

Coincidentally, the approach of winter brings about the onset of this type of depression. The lack of healthy sunlight and the reduction in daylight time are often associated with it. General symptoms displayed are excessive sleep, craving for sweets, or good tasty food. Special bright light therapy boxes (called light boxes) help in the treatment of this kind of depression. This is common among people living in regions prone to cold climates. If the negative emotions, feelings of despair, and moods continue for a prolonged period, the illness may take shape of another form of depression.

v. Post-natal depression.

This is the most common form of depression among many new mothers affecting about 10% - 20% of them. Also called postpartum depression, the mother may experience baby blues, mood swings, irritability, crying for no apparent reason, loneliness, insomnia, anxiety, etc., for the first three to four days after giving birth. It hence becomes difficult to diagnose.

The resulting display of symptoms in the case of prolonged postnatal depression includes insomnia, anxiety, panic attacks, overwhelming fears about death, the feeling that they are inadequate and the inability to manage themselves or cope with the situation. Sometimes the occurrence may be after two-three weeks of delivery and may go unnoticed by the mother herself or by her family. It is indeed essential to identify the symptoms of postnatal depression to accurately diagnose the condition. Medical assistance should be sought if negative emotions prevail in the first few weeks of childbirth. As the experience for the mother & family is emotional it is an added necessity for the family to help the mother out of depression.

Medical professionals give classification and definition(s) of depression based on severity levels of depression. The website (Depression.com, 2009) highlights the differences between a major, and a milder type of depression called dysthymia. Major Depression is a form of depression in which the sufferer constantly and continuously feels negative emotions up to a point whereit adversely affects every part of the individual's life.

Symptomatically, depression exhibits physical and mental variations. Dysthymia is a form of mood disorder where the individual may feel predominantly, mildly depressed over

a prolonged period of a minimum of two years. The symptoms exhibited are similar to that of major depression, however, with severity levels that are much lesser. Despite low severity levels, there could be long-lasting and significant effects on the individual's routine life due to dysthymia.

Based on the different causes and factors of depression, are classified into three broad groups identified by the National Health Service (NHS, 2009) as follows:

Psychological - This is the type where a stressful or disturbing incident/instance in life causes a continuous dispirited characteristic with sadness, low self-confidence, and feelings of sickness and hopelessness about what the future may hold.

Physical or chemical – Any changes in levels of chemicals in the brain affect the thought process and sometimes causes depression. As an example, anybody's mood may change when hormone levels fluctuate. This is often a scenario among women as the association is direct with the menstrual cycle, fertility/pregnancy, miscarriages, labor, delivery, and menopausal.

Social – Performing fewer activities or having very few hobbies or interests can bring about depression or sometimes being socially inactive could be due todepression.

Causes and symptoms of depression

The emotional aspects and feelings involved in depression affect differentlyin people as each has various ways of dealing with scenarios and emotions. The chemical imbalance that gets generated in the body due to depression if left untreated could build up to result in a range of symptoms and could harmfully affectthe body.

Triggering of depression could be due to a wide range of events or incidentsthat occur in the immediate environment, circumstances, situations, and factors causing could be different for different people. While in reactive depression, negative emotions may arise and get triggered by the occurrence of something in life that is upsetting or stressful, like acute illness of someone near and dear, divorce andseparation, job-related issues or lack of a good job, monetary issues, etc., other types of depression may not display apparent causes. Therefore, it is essential to try and recognize the possible causal factors that are triggers of an individual's depression along with the other aspects that add to the severity levels of depression. This will hugely aid in the diagnosis and treatment of the illness in the individual.

The general character traits of people scoring high on the Depression Scale as part of the test on depression, anxiety, and stress, include feelings that are (see figure 1). Feelings of people scoring high on the Depression Scale. To be more specific, mental, and physical symptoms along with emotional and behavioral symptoms are clear results of depression.

FEELINGS	MENTAL SYMPTOMS	PHYSICAL SYMPTOMS	BEHAVIORAL SYMPTOMS	EMOTIONAL SYMPTOMS
Self-disparaging	Low self- esteem and self confidence	Slowed movement or speech	Not performing well at work	Crying
Dispirited, gloomy, blue	Lack of motivation and little interest in things	Tiredness	Taking part in fewer social activities and avoiding contact with friends	Feelings of guilt
Convicted that life has no meaning or value	Difficulty making decisions	Loss of energy	Reduced hobbies and interests	Feeling irritable and intolerant of others
Pessimistic about the future	Difficulty concentrating	Change in appetite or weight	Difficulties in home and family life	Continuous low mood or sadness
Unable to experience enjoyment or satisfaction	Lack of enjoyment	Constipation		Feelings of hopelessness and helplessness
Unable to become interested or involved	Suicidal thoughts or thoughts of harming someone else	Diarrhoea		Anger and frustration
Slow, lacking in initiative	Feeling anxious or worried	Unexplained aches and pains		
	Reduced sex drive	Lack of energy or lack of interest in sex		
	Thinking life is unfair	Changes to the menstrual cycle		
	Believing you always make mistakes			

Figure 1: Symptoms of Depression

Consequences of depression

Persistent negative feelings related to depression can have a significant effect on mental health, physical health, and behavior. This can in turn affect a person's work performance, personal life, and social life and ultimately their relationships and self-worth, and motivation.

In the short term, depression can lessen a person's enjoyment of life and makes them aloof from their family and friends. Depression leads to a loss of focus on priorities and goals in life and drains the motivation to achieve and do the things that we love. This, in turn, diminishes our self-worth and self-esteem leaving us witha feeling of impossibility and despair.

In the long term, continued depression can have even more severe impacts on one's health, leading to the development of more severe conditions and illnesses.

Awareness of depression

Depression should not be something to be frightful about. The majority of people inthe populace could be treated for depression. (Depression Alliance, 2007). Importantly, diagnosis and treatment by a medical professional must be made mandatory to ensure the essential care and procedure to follow.

There are however some things that individuals can do as part of assistance in managing their depression and negative emotions consistently. Effective management of depressed feelings and negative emotions is vital for understanding the reasons, changes in moods, and trigger switches that lead to being upset and depressed. As depression affects each person differently due to various factors, the most crucial step to be taken is to manage and cope with the situation which is to self-realize that their emotions are bringing the problems. Depression is said to have taken control of the person’s life when persistent negative emotions andfeelings are inhibiting their capacity to lead a good healthy life.

One must recognize the associated physical symptoms, mental triggers, and emotional and behavioral symptoms that are causing depression, to identify the resulting problem of depression. In case the person has recognized that they are suffering from negative emotions that are affecting them harmfully, it is subsequently essential to try and identify the causal factors and triggering factors ofdepression.

Understanding the details helps and allows the person to look into the matterand identify ways to manage the negativity in near future. That could be possible by either avoiding such triggers or by trying to reduce the impact of such events on theirmental health. It becomes crucial for the person to understand and identify the causesand triggers that are underlying in the mind and raising negative emotions as not allforms of depression could be caused by one incident/ instance. Sometimes, there could be nothing at all and the person may be depressed.

Commencement of understanding how the body responds to various events and instances may be done when the person recognizes the causal factors of negative emotions in them. The individual can try and understand their reaction to a particular ‘triggering event’.

Questioning themselves as to why they react the way they do is equally important. Determining the reasons why the perception of particular events in their life is upsetting and stressful could be the kick-start to identifying waysto avoid or reduce the adverse reactions of the mind toward the events.

Professional medical aid is always required for people even though they can manage, reduce or avoid such depression-triggering events. Once the person has recognized the causes and resulting symptoms of triggering events, professional assistance would always equip them to deal with their depression by use of knowledge along with the treatment to manage it.

Stress

The (Stress Management Society, 2009) defines stress as, 'a circumstance where demands on a person exceed the person's resources or ability to manage. The United Kingdom National Health Service (NHS, 2009) defined stress as 'the way that you feel when pressure is placed on you.

The (ISMA, 2009), defines stress as 'an adverse response to what an individual perceives as too much pressure. Stress is an unhealthy state of the body or mind or both.

There are varied definitions given to stress based on the degree and levels of severity of stress-related feelings and negative emotions. While sometimes stress and pressure could assist in motivation, productivity, and presentation of the individual, however, too much pressure, and that for a prolonged period could lead to levels of stress that are unhealthy for the body and mind. This type of stress is named chronic stress. Feelings and emotions of stress are due to the discharge of certain chemicals in the body like cortisol, adrenaline, and noradrenaline (NHS, 2009) when an individual is faced with stressful situations. These chemicals raise the feelings which may be that the individual must fight the situation or take flight from the situation. These kinds of feelings help in choosing to deal with stress.

These 'fight or flight reactions to stress are just one of those to a probable challenge or pressure that is perceived and consequently assist us in identifying threats to take necessary action to avoid situations that could potentially harm the individual or the environs (ISMA, 2009). Also, continually being in a state of fight or flight means that the chemicals are being produced continuously and could result in negatively affecting health. When the released chemicals from stressful situations get accumulated (either because they are unused or because they are produced continuously), adverse effects on the body and mind are possible.

The (NHS, 2009), described that the build-up of adrenaline and noradrenaline increases blood pressure levels, heart rate, and the amount of sweat released. In the same way, cortisol is said to prevent the immune system from properly functioning and releasing fat or sugar into the bloodstream. These types of responses change the effective functioning of the body and can impact the health of the personin the long term.

Hence, understanding and recognizing the stress levels that one is experiencing is pivotal to knowing if the feelings are harmful or helpful in the daily routine of life. The prevailing negative emotions can only then be understood to respond and react appropriately for managing the feelings.

Stress evidence

While a low level of stress can assist in productivity, presentation, and inspiration, persistent stress is harmful to your body and mind (NHS, 2009).

Categories of stress

According to (The Health Centre, 2006), there are four main types of stress that adults experience:

i. Eustress.

Short-term stress that gives strength immediately is Eustress. It is a stress generated during increased physical activity, enthusiasm, and creativity. It arises when the individual needs motivation and inspiration. For example, a gymnast experiences Eustress before a contest.

This stress is positive only if it occurs in limited or required amounts for a short period rather than a continuous period. Other forms of stress may be generated in case these feelings are experienced over a prolonged period.

ii. Distress.

This is a negative stress that is brought about by continuous readjustments or alterations to a particularly comfortable procedure. It generated discomfort and unawareness of the surroundings.

The two dual of distress are:

a. Acute stress is stress of higher intensity that comes and disappears swiftly.

b. Chronic stress is that which gets prolonged for weeks that may lead to months and years of distress. People who continuously change jobs or are relocating may experience such distress.

There could be adverse effects on one's physical, mental and emotional health due to both acute and chronic stress. It is significant to recognize this kind of stress as the one that causes harm potentially and look at ways to reduce and manage such emotions. There could be adverse effects on one's physical, mental and emotional health due to both acute and chronic stress. It is important to recognize this kind of stress as the one that causes harm potentially and looks atways to reduce and manage such emotions.

iii. Hyper stress.

It is seen to occur when individuals when being pushed beyond what he or they can handle. It's an outcome of being overladen with work and subsequently overworked. When a person is hyper-stressed, minute and trivial things could trigger emotionally strong reactions. A

trader in the stock market arena is likely to be hyper-stressed. There could be both short-range and long-range effects of hyper-stress showing significant repercussions on one's health.

This type of stress affects all facets of a life of a person including their work, home, and social lives. Relationships with people also get affected leading to greater depression.

iv. Hypo stress.

It is the reverse of hyper-stress that occurs in an individual when they are bored or unchallenged. Restlessness is a common experience among the suffererwho is uninspired such as a person working on repetitive tasks in a factory experiencing hypo stress.

Short-term effects are not harmful under this type of stress, but long-term negative impacts are seen to be significant and affect the performance levels,health, and motivation of the individual.

Symptoms of stress

The reactions and responses to stressful situations are different among individuals based on their feelings which result in the release of chemicals by the body leading to a variety of harmful effects. The common traits are shown by thosescoring high on the Stress Scale as part of the Test for depression, anxiety, and stresswhich includes feeling (see figure 2). Feelings of people scoring high on the stressscale.

Causes of stress

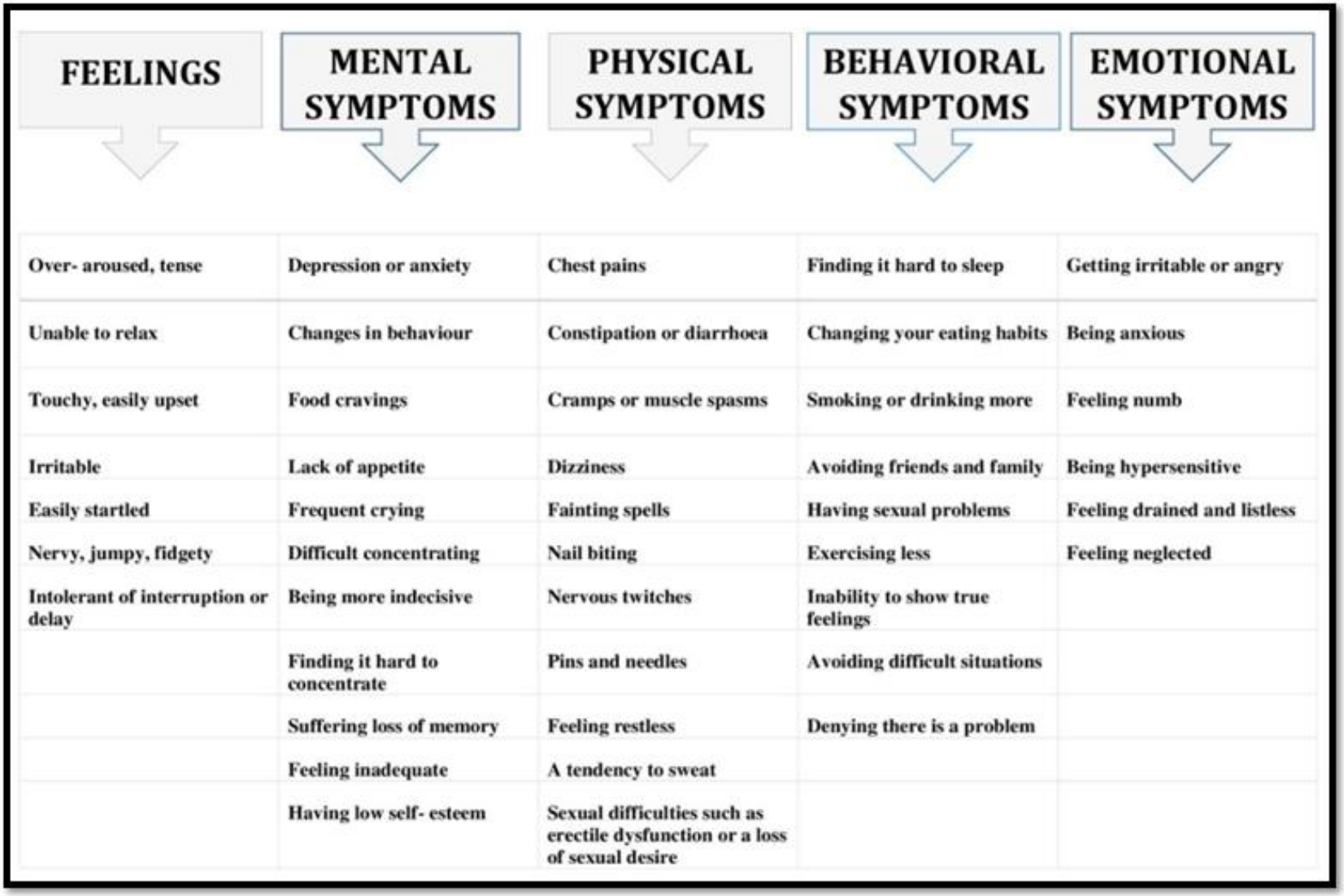
The causes of stress widely range with variations and since responses between individuals are different hence the triggers causing the reactions are also different among individuals. It is hence crucial to be able to identify the triggers andmajor contributing factors which induce negative emotions.

Signs of stress are mental, physical, emotional, and behavioral. Accordingly,some of the commonly found stress responses that sufferers exhibit are as below: More specifically, stress can result in symptoms mental, physical, emotional, and behavioral. Below are some of the typical stress responses that are displayed by stress sufferers.

The significant factors that cause stress according to (the Stress Management Society, 2009)

- If we think the situations around us are worthy of stress and anxiety; and,
- Reactions of the body to thought processes i.e. the response of stress tounexpected and untoward incidents of fight or flight.

In case a person experiences something challenging or untoward circumstances emerge, the resulting thought processes could be related to how stressful the person may perceive the situation to be. In case the situation shows extremity, the reactions would be more substantial. The understanding of the swinging thought processes and associated reactions to stressful situations play a significant role in managing or treating such sufferers.



FEELINGS	MENTAL SYMPTOMS	PHYSICAL SYMPTOMS	BEHAVIORAL SYMPTOMS	EMOTIONAL SYMPTOMS
Over- aroused, tense	Depression or anxiety	Chest pains	Finding it hard to sleep	Getting irritable or angry
Unable to relax	Changes in behaviour	Constipation or diarrhoea	Changing your eating habits	Being anxious
Touchy, easily upset	Food cravings	Cramps or muscle spasms	Smoking or drinking more	Feeling numb
Irritable	Lack of appetite	Dizziness	Avoiding friends and family	Being hypersensitive
Easily startled	Frequent crying	Fainting spells	Having sexual problems	Feeling drained and listless
Nervy, jumpy, fidgety	Difficult concentrating	Nail biting	Exercising less	Feeling neglected
Intolerant of interruption or delay	Being more indecisive	Nervous twitches	Inability to show true feelings	
	Finding it hard to concentrate	Pins and needles	Avoiding difficult situations	
	Suffering loss of memory	Feeling restless	Denying there is a problem	
	Feeling inadequate	A tendency to sweat		
	Having low self- esteem	Sexual difficulties such as erectile dysfunction or a loss of sexual desire		

Figure 2: Symptoms of Stress

Consequences of stress

Expanded negative strain can have critical short-span and long haul go on our emotional wellness, physical well-being, and conduct models. Thus, this can influence a man's work introduction; home, and sociable life which ultimately influences their connections and self-esteem with the absence of consolation.

Studies (Stress Management Society, 2009) say that our responses to stressful scenarios & circumstances directly affect our bodies and health. Consequentially, people become more irritable, jumpy, anxious, and excitablesometimes. Short-term effects show a reduction in their ability to work effectively/ do something productive for themselves, making it difficult to do precision work and perform skills that are controlled.

When the person focuses more on the stressful event or situation, it is more likely that the person would take decisions for sake of themselves than the team/group. Long-term effects of stress show a direct impact on health if proper careis not taken for managing the stress. When there is continuous stimulation of stress-based chemicals in the body, the immune system and mental health of the person weaken, making them more prone to many severe conditions.

Awareness of stress

Effective management of stress is possible only if the stress feeling and the negative emotions are clearly understood by the individual or by the ones who are near, or dear to the affected person. As the factors and effects of stress are differentfor different people, being aware of the stress-triggering events and realization of the existence of the issue and its effect on the individual, is a significant aspect of managing stress.

There are different points of stress that turn into problematic issues for each. When negative emotions inhibit the ability of a person to live a healthy enjoyable life that could otherwise be happy, it generates more stress and affects life activities directly. Stress has a significant (Mental Health Foundation, 2009) adverse effect on life. Accordingly, when stress symptoms affect physical and mental health, emotional aspects, and behavior patterns, stress has overtaken life. Physical symptoms of stress that could send a warning signal are a display of tension in muscles or gestures, overtiredness, migraines, etc.

Stress can be considered now problematic when routine life is profoundlydisturbed. The very recognition that stress is on harmful level to the individual being, identifying the factors and trigger switches is necessary at the fundamental level. This is because when the initial triggering aspects are identified, people may try to manage and cope with these factors that are impacting their lives negatively. Also, there could be more associated triggering situations/instances that affect individuals, adding to more stress. Therefore, necessarily, the factors identified should be able to fundamentally help reduce negatives in the stress-based lifestyle.

As a consequence of those mentioned above, the bodily changes due to the effects of stress increase. Hence, it is also essential to incorporate coping mechanisms by understanding the logical reasoning behind the reactions of a person to stressful situations. The identification helps to reasonably approach various situations and reduce the adverse effects on the body and mind. Balancing thoughts and perceptions, reactions to stressful situations, and overcoming the barriers of inhibition and fears are all part of coping mechanisms.

There could be times when such coping mechanisms may not help the individual with immediate effect, or, the person is getting more stressed while trying to cope with the same. During such situations professional and medical assistance isto be taken without fail so that the health of the person is retained. This is common in individuals when the stress becomes too much to handle as their fundamental personality traits would come in conflict with various circumstances and relations. In case the person is neither able to identify or understand their reactions and behaviorto environs nor are they able to understand the physical impact of stress in their life, regular professional aid helps in the matter.

Anxiety

It is a widespread term used to explain various disorders of anxiety, from thesubtlest to extreme panic situations. Each disorder exhibits specific primary characteristics and traits. These traits ultimately result in fearfulness, doubt, nervousness, wheezing (or shortage of breath), lack of sleep (insomnia), shivering, sleep apnoea, nausea, vertigo, etc.

Types of disorders in anxiety

i. Generalized Anxiety Disorder (GAD)

Individuals with this disorder show fear and worry about their daily activities like work, school, health, family, money, etc., and how to deal with each aspect. Micro and micromanagement issues stay persistent. Even though the causes are common, it would be difficult for the individual to identify the reason for anger. However, identification of the triggers would not stop the realistic effects of their fear and worry.

ii. Panic disorder

This disorder occurs for brief moments with sudden feelings of terror and dread, especially with high intensity. The period may vary between a few minutes to a few hours in extreme situations. Additionally, apart from these attacks that occur initially, the resulting scenario is that the sufferer shows an acute awareness of everything that is happening to the self, and in turn ends up overreacting (For example, they may believe that everybody's ailment could be a life-threatening illness). Also, due to such occurrences, there could be a frequent change in their behavior because of their extreme fears about the time at which such attacks may happen in the future or where they could happen which could create isolation and affectthe quality of life.

iii. Phobias

This is another type of anxiety disorder that is driven by particular situations or objects. The typical fears could be fear of individual animals, or reptiles, fear of small spaces, fear of flying in planes, fear of open spaces, etc. The disorder is much different from a generalized anxiety disorder in that the person suffering may be able to identify the exact reason for the fear generated, resulting in severe anxiety. Those suffering may often be aware of the irrationality of their fear. However, the response cannot be controlled by them nor can they change the reaction. Typically,the sufferers tend to change their behavior to avoid the phobia (For example, takingalternative transportation to avoid flights).

iv. Obsessive-Compulsive Disorder (OCD)

Typically the characteristics of this ailment involve persistent actions that are repetitive and uncontrollable. Unwarranted feelings that are intrusive and distressing tend to accompany the actions. The individual sufferers engage themselves in repetitive actions or compulsions, or rituals, as a way of coping to tryand alleviate their anxiety, despite being aware of the fact that the compulsions are neither rational nor reasonable. Common compulsions could be to check the door ifit is locked, to check the stoves if they are switched on or off, or consistently cleanthe surroundings owing to fear of germs, etc.

v. Post-Traumatic Stress Disorder (PTSD)

The triggers of this disorder involve severe physical and/or emotional traumaand are very typically associated with combat soldiers who are on their way back home. Other causes are natural disasters, life-threatening accidents or illnesses, situations where people are held hostage, rape, and a break-in at home, etc. The disorder could show effects that last anywhere between a few months to a few years.

Causes and symptoms of anxiety

There could be a wide range of factors that cause anxiety. They could be those right from environmental and external factors, to medical factors or substanceabuse, or the chemistry between their genes and brain. This could be a reason why sometimes the diagnosis of the cause of anxiety could become tricky and confusing, especially when the patients suffering is not aware of the cause them.

External and environmental factors are more frequent causes of anxiety. Common causes of anxiety are events that are life-changing or traumatic (for example, abuse, death of someone very dear to the patient), issues and stresses in a personal relationship, workplace or school-based stress, worries due to personal finances, and natural disasters Factors from the medical scenario could involve stress due to a serious medical condition, side effects of medication or effects of the medicalcondition itself could be some of the symptoms that lead to anxiety. Very specifically, anxiety can result in mental, physical, emotional, and behavioral

symptoms Mentioned below are some of the typical responses of anxiety as displayed by sufferers.

Anxiety could also be caused frequently by substance abuse, consumption ofalcohol, and drug abuse. It could be due to continual use or withdrawal from the saidsubstances. Studies done by researchers have also suggested that anxiety could be acondition that is caused by genes and that a family history of anxiety sufficiently increases the probability that a person could suffer from an anxiety disorder. Ultimately, theperson's brain chemistry could cause anxiety. There could be neurotransmitters at abnormal levels which could cause generalized anxiety disorder. When the brain cannot react appropriately to some situations it could lead to anxiety. As there are a wide diversity of types of anxiety, namely Generalized Anxiety Disorder (GAD), Panic Disorder, Phobias, Obsessive-Compulsive Disorder (OCD), and PostTraumatic Stress Disorder, there are symptoms that are specific to ailments apart from the fact that many of these disorders share symptoms.

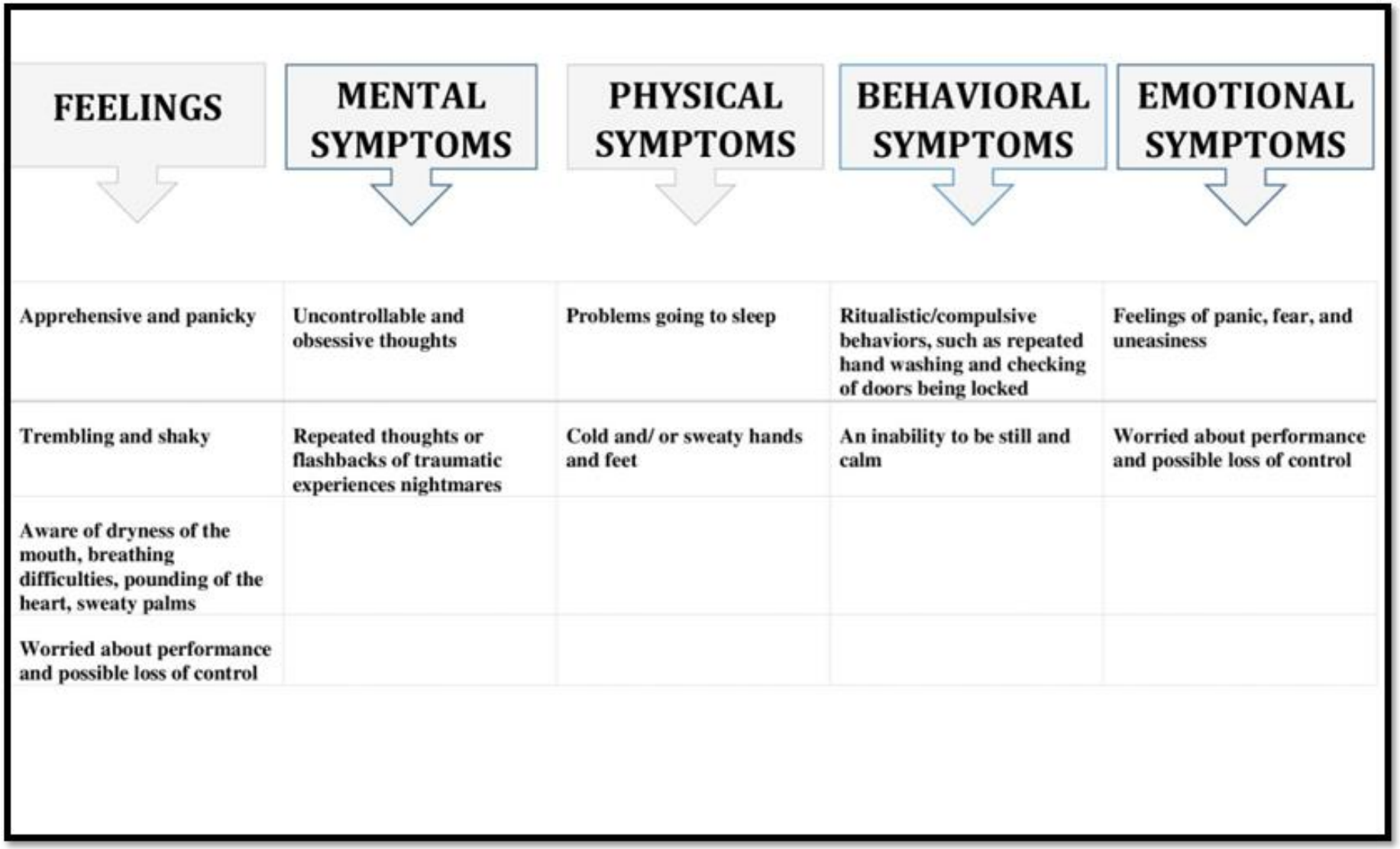
The feelings of those scoring high on the anxiety scale and the symptoms of anxiety are shown in figure 3.

Consequences of anxiety

There could be many effects of anxiety on the suffering person, many of them being obvious ones like fast heart/ pulse rate, concentration problems, etc. In other cases, prolonged periods of suffering from anxiety could easily lead to long-term effects on the body like higher chances of getting a stroke or heart attack. It is as such advisable as an essential step to seek medical aid which would be more appropriate for the condition.

Anxiety based long-term effects

- ***Increased risk of stroke:*** Consistent and frequent release of "flight or fight hormones" increases the risk of the individual's heart. Also, research indicates that sufferers in middle age especially men show symptoms of mental distress which is more likely to cause a fatal stroke. The instances are three timesmore likely to happen.
- ***Early memory decline:*** The hippocampus cells that are associated with memory and learning could be affected in the long term, due to anxiety, which in turn affects memory. This could result in a decline of memory very fast in the individual, more commonly among elderly patients who suffer from anxiety and/or depression.
- ***Insomnia:*** Anxiety of any kind could cause insomnia in a similar way that insomnia can cause anxiety. That is a reason insomnia and anxiety are said to go hand in hand. The very first sign of anxiety is incidentally, insomnia.
- The detrimental impact of emotional distraction, and anxiety can lead to a lack of concentration, low performance at school or work, and incompetence to maintain relationships with family and friends.



FEELINGS	MENTAL SYMPTOMS	PHYSICAL SYMPTOMS	BEHAVIORAL SYMPTOMS	EMOTIONAL SYMPTOMS
Apprehensive and panicky	Uncontrollable and obsessive thoughts	Problems going to sleep	Ritualistic/compulsive behaviors, such as repeated hand washing and checking of doors being locked	Feelings of panic, fear, and uneasiness
Trembling and shaky	Repeated thoughts or flashbacks of traumatic experiences nightmares	Cold and/ or sweaty hands and feet	An inability to be still and calm	Worried about performance and possible loss of control
Aware of dryness of the mouth, breathing difficulties, pounding of the heart, sweaty palms				
Worried about performance and possible loss of control				

Figure 3: Symptoms of Anxiety

Awareness of anxiety

Anxiety-based suffering occurs at some point in life in every individual's life. It is necessary to know that it is the body's way of letting us know that action isrequired to be taken to confront a threatening or dangerous situation that could be forthcoming. Anxiety could be considered useful as it helps us take appropriate action at a required time. For example, when we ensure that we are prepared as much as possible for ajob interview or that the individual is not doing something that one may think is dangerous.

There is a likelihood that, just like stress, there could be a tipping point in suffering from frequent anxiety which could have detrimental effects on the life of an individual. It becomes unhealthy when anxiety is constant and it could probably worsen by reacting badly to anxiety itself (For example, not attending the job interview at all instead of confronting the situation) When the feeling of anxiety becomes so frequent and intense to the level of distress, many individuals try to eliminate the feelings which is not the appropriate way to deal with anxiety. Ignorance or avoidance to eliminate anxiety would probably make the individual more handicapped to deal with unavoidably challenging, stressful, and very demanding situations.

Behavior therapy and Psycho-Education intervention

This section introduces the concept of behavior therapy and its underlying principles; and psycho-education intervention.

Behavior therapy

The direct focus of practitioners in behavior therapy is on observable obvious behavior, present behavioral determinants, experiences of learning in the individual that brings about change and promotes it, strategic treatments that are tailored for individuals along with rigorous assessment and similar evaluation.

Various client populations were treated using the approach of behavior therapy for a broad range of psychological disorders like depression, substance abuse, anxiety disorders, eating and weight disorders, post-traumatic stress disorder, pain management, sexual issues, hypertension, etc. successfully (Wilson, 2011).

Procedures of a specific kind for interventions in behavior are also used in different fields for overcoming developmental disabilities, education, special education, and mental illness. They are also used in community psychology, clinical psychology, as part of rehabilitation procedures, sports psychology, health-related behaviors, business, self-management, medicine, and in the process of aging individuals – gerontology (Miltenberger, 2012; Wilson, 2011).

Key concepts of behavior therapy

The focus is on apparent conduct, accuracy in mentioning the treatment goals, Progress in the growth of individual treatment plans, and objective evaluation of therapy results. The

focus of attention is given to the present conduct. Therapy established is grounded on the principles of learning theory. Normal behavior is learned with the help of bolstering and imitation and abnormal occurs as an outcome of defective learning (Corey, 2009).

The principles and methods in behavior therapy are applied to facilitate people in changing their maladaptive behaviors. The behavior of an individual is not restricted to the obvious actions observed in the person. The behavior can also be internal processes including emotions, cognitive behavior, beliefs, and many more. Behavior therapy deals with the factors which influence the current problems faced by an individual. Understanding the issues faced in the past can sometimes provide useful information to relate to the present behavior. This therapy identifies the importance of the client, their environment, and their interaction with peoplearound them (Corey, 2009).

Individuals who undergo behavior therapy are expected to assume an active role by involving themselves in various actions which aid them in dealing with their current problems. More than just talking about their issues, individuals are expected to be active in the sessions to bring behavioral changes. The behavioral changes during and outside the behavior therapy sessions are monitored.

Behavioral therapy is an educational approach that helps individuals to replace maladaptive behaviors with new adaptive behaviors. It focuses on understanding oneself, their problems, and methods to change them (Corey, 2009).

Goals of behavioral therapy

Goals live in the importance of behavior therapy. Some of the general goals in behavior therapy include increasing personal choice and creating innovative conditions for behavioral learning. With the help of the therapist, specific treatment targets are set in the therapeutic process.

The three main goals of behavioral therapy are (Corey, 2009): Eliminating maladaptive demeanors and more effective learning behaviors, Identifying the factors that have an impact on behavior, and determining what has to be done about problematical conduct and Encouraging clients to take an active and cooperative role in setting the treatment goal clearly and also to evaluate how thesegoals are going to be met.

Continuous assessments are administered throughout the sessions to determine the extent to which the behavioral therapy goals have been achieved, as it is important to keep track of the progress achieved to determine further sessions. Behavioral therapists facilitate the client in formulating clear and concrete behavioral goals, which are agreed upon mutually by the client and therapist. The therapistdiscusses with the client the behavior related to the target goals, their nature, and the circumstances which are necessary to achieve them. The behavioral therapist and clientcan alter the behavioral goals if needed (Corey, 2009).

Techniques in behavioral therapy

Reinforcement, shaping, modeling, systematic desensitization, relaxation methods, flooding, eye movement and desensitization reprocessing, cognitive restructuring, assertion and social skills training, self-management programs, mindfulness and acceptance methods, behavioral rehearsal, coaching, and various other multimodal therapy techniques. Diagnosis or evaluation is performed at the initiation stage to decide on a treatment plan. The questions focus on “what”, “when” and “how” (and not “why”). Homework assignments and contracts are also used (Corey, 2009).

The techniques used in behavioral therapy are evidence-based practice and are highly valued. Practitioners of behavioral therapists can incorporate diverse techniques irrespective of their origin, into their treatment sessions to achieve behavioral changes effectively. The sessions planned are specific for a client. Someof the commonly used techniques are relaxation training, applied behavioral analysis, training social skills, systematic- desensitization, and accepted-based approaches.

Psychoeducation

The goal of psychoeducation is a behavioral change that includes cognitive, behavioral, and supportive elements. Education is a gradual process, and the intended outcomes of psychoeducation fall on a continuum and build on one another (Psychiatric Times, 2012). Psychoeducation: An idea whose Time Has Come. A process of psychological assessment and the subsequent design of remedial programs. The psycho-part of psychoeducation offers a broad range of psychological theories that anchor the approaches, issues, program missions, assessment, content, and practices (Wood, 1999).

The model of psychoeducation has a humanistic approach. The behavior of an inappropriate person is viewed as a maladaptive attempt of that person in coping with environmental or situational demands. Development of appropriate behavior can be possible by assisting the individual in identifying the necessity for change and helping the person to present themselves with better alternatives of behavior.

The approach, as understood by the name itself, is a combination of Psychology and Education. Due consideration to life experiences and feelings is given, however, the "psyched" practices delve deep into an individual's remote past which goes beyond "Psychotherapy". Interventions of psychoeducation concentrate primarily on the present and future, while parallel recognizing the events of influence from the past. So, the primary emphasis is not just the observational changes in behavior unlike that in the behavioral model (McIntyre, 2006).

Additionally, educators of Psychoeducation show concern for the mind of the individual, their perceptions about reality, and their feelings. The influence and outcome on the emotional and psychological level, are mainly considered in the practices and procedures of

psychoeducation. The professionals involved in the process of bringing about a behavioral change in the student or client must take dueconsideration of the psychological state they are in and their emotional issues while actively involving the person in the development of better behavior (McIntyre, 2006).

Psycho educators say that the change in behavior in an individual comes from the growth of a better perception of oneself and others (psychologically) and not justby the influence of different variables from/in the environment as is the case with the model of behavioral analysis. Practicing new ways to react, by educating the individual through understanding is also a crucial factor in the development of a change. New ways to respond are taught to the student by gradually teaching them self-control to avoid and refrain from unsuitable actions and the like, of the past (McIntyre, 2006).

Conceptualization of psychoeducation

Psychoeducation is a process of assessing the psychological makeup of an individual and designing relevant ensuing corrective programs. The programs are generally based on the educators/ researcher's assumptions, ideas, and notions regarding the nature and etiology of an individual's uniqueness ("Encyclopedia ofSpecial Education", 1986, pp.1265- 1266).

The psychoeducational theory was suggested as a treatment process through education for various emotional, behavioral, ecological, psychodynamic, developmental, depression, sociological, cognitive-effective, and many more, by understanding the history of the approach and the need to put it into practice by comparing and integrating few of these perspectives. (Wood, 1999).

The very word "psychoeducation" implies the incorporation of a wide range ofconcepts and theories through which the methodologies, program goals, andpractices are established through different programs. It also signifies animprovement in learning concepts that form the principal substance of the approach apart from practicing programs in psychoeducation (Wood, 1999). It is believed that if a person has more awareness and understanding about his/her condition/ state of mind, the better the person can manage themselves with awareness and acceptance.

Psychoeducational programs have their foundation based on a broad range of concepts of psychology and theories. The concrete approaches used in the programs are catered to the relevant associative psychological theory that the issues come into. Psychodynamic psychoeducation is grounded upon the fundamental theories of psycho-analytic/ psychodynamic psychology. The programs highlight inner ambitions, energies and initiatives, emotions, and eventual determination of their clashes of mind.

The principles used here authorize the programs to affix applicable solutions for the difficulties faced in a dynamic setup individually or within a set/cluster. Cognitive-affective

psychoeducational programs prioritize and are designed on fundamental self-management skills that benefit children and youths to understand their experiences.

The programs founded upon the philosophies of cognitive psychology are built based on research about the connections between activities of the brain, emotions, and behavior with the presentation, and fixate on training the self and copingwith skills for regulation of emotions and conduct. Also, illogical ideas or misunderstandings and cognitive misinterpretations are directly tackled and confronted. Further, psychoeducation awareness is given on adaptive problem-solving skills, self-control/management skills, and stress-management for the self and group skills (Wood *et al.,* 1999).

Psychoeducation for Behaviour is based upon the behavioral and learning theories of psychology which emphasize apparent overt behavior and learning characteristics. Many behavioral psychoeducational programs utilize the principles of reinforcement to remodel behavior among distressed and troubled individuals. In the integration process, these programs are concerned with the interplay between cognition, its effect, and actions, which are used to make better skills in social life and those in self-directorate which leads to modifying erudite behaviors (Wood *et al.,* 1999).

Ecological psychoeducation: - depends on re-education philosophy or the possibility that aptitudes that are not as much as an ideal can be re-educated and re-learned. These psychoeducational programs consolidate psychological well-being treatment, instruction, and human service approaches keeping in mind the end goal to address the complex social frameworks and relational elements that associate with the lives of difficult kids also, young people. The use of various methodologies is intended to re-figure the aptitudes, conducts, and social associations of worried youth (Wood *et al.,* 1999).

Sociological psychoeducation is based on the foundations of social psychology and takes the help of the peer group which is the main factor that affects andmodifies a distressed, troubled mind, and their behavior, socially. The process involves bringing a positive change in the behavior with peer relationships, family systems, culture, and shared concerns of the social group. A supportive and therapeutic environment is paramount in sociological psychoeducation which is expected to bring positive changes in adults and peers.

Psychoeducational programs introduce educated mental health therapy, social service approaches to address the social systems along with interpersonal the cause which plays a pivotal role in disturbed children and adults (Wood *et al.,* 1999). Developmental psychoeducation comes out from basic theories of personality development and developmental psychology. Foundations are based on individual characteristics like human behavioral aspects, cognition, emotions, attitudes, motivations, etc. that arise in probable orderly stages.

Developmental psychoeducation programs promote a framework of identity and build self-esteem, bringing about a healthy developmental change (Wood *et al.,* 1999).

Revelations in research show that psychoeducation methods are equally effective in the treatment of mental disease issues and concerns as the traditional therapeutic approaches. (Schechtman *et al.,* 1997), studied the curative factors ascribed to the groups of psychoeducation and traditional counseling. The participants were non-clinical eighth-grade students who attended either a weekly psychoeducational group or a counseling group. They were required to enlist remedial/therapeutic factors which could be ascribed to their group. It was found that the number of remedial factors designated by participants was not statistically variant through the groups of psychoeducation or counseling. Resulting factors show that psychoeducation and counseling are effective in therapy, equally.

Psychoeducational techniques were found to be effective in enhancing the consciousness in interpersonal communication and perceptions; signs of psychopathology and similarly other adverse situations and circumstances. Investigation of the impact of psychoeducation (Brand *et al.,* 1995) on perceived social support. Fifty-one participants were taken for the inquiry who were in the age group of 19-69yrs. The participants completed a 13-week intervention that highlighted the social skills training, cognitive setting concerning the individual and social conceptions, or, those who take part in a waitlist control group. The results of the study clearly showed the members who completed the intervention demonstrated significant advancements in their perceptions concerning the social support given by their families to them when compared to the members in the control group.

Articles stated (Hess *et al.,* 2004) that adolescents who lack realization of mental health signs and their outcomes are more likely to experience depressive cognitions. Nevertheless, psychoeducation was found to be effective in improving the awareness of symptoms of mental health issues.

A study performed by (Chowdhury *et al.,* 2003), found that the kids with Obsessive Compulsive Disorder (OCD) in the age group of 11 - 16yrs who took part in a six-week psychoeducational program (that focused on awareness and understanding of signs which help to enhance and establishing social support), showed significant improvements in recognizing the signs and awareness. It was reported that this awareness increased confidence in coping with OCD. This study included a very small sample size of 7 youngsters with the usage of qualitative measures. Furthermore, no progress in OCD signs was testified.

Youths who are depressed frequently have negative insights into their lives and interpersonal interactions. It was found that psychoeducational techniques aid in enhancing the perceptions of teenagers who experience depression. (Sanford et al.., 2006) lead a study to examine the effect of a family psychoeducational program on families that had adolescents

suffering from major depression. The study included a sample of thirty-one participants from the age group 13 to 18yrs, who fulfilled the criteria for Major Depressive Disorder. The members were categorized into two groups- the Treatment group and Control group. Both groups were subjected to treatment. The "treatment group" took part in the psychoeducation program in addition to the treatment when compared to the control group.

The outcomes of the study showed that the participants who underwent psychoeducation showed improved perceptions regarding family social support, a social activity that improved the relationship with parents. Follow-up was conducted after three months. It was noted that this study did not measure progress in symptoms of depression. Nevertheless, the author of the study hypothesized that improved perceptions of social backing and family kinships lead to progression in signs of depression.

Even though the inquiry in this field is limited, the psychoeducational intervention has been found to help in the improvement of perceptions in children regarding their parents' behaviors. Fristad (2003) conducted a study to examine theeffect of family psychoeducation on kids with mood disorders such as anxiety and depression.

The participants of the study included 35 relations with children in the age group of 8 – 11yrs, who belong to a wide range of clinical histories. Children and respective families were assigned either to a treatment group, wherein they underwent six sessions of psychoeducation along with family therapy, or were assigned to the control group, in which the participants received only family therapy.The results of the study showed that children who received family psychoeducationsessions displayed visible improvement in mood disorder signs, perception of parental support, and family interactions when equated with the control group who received only family therapy.

The conceptual framework

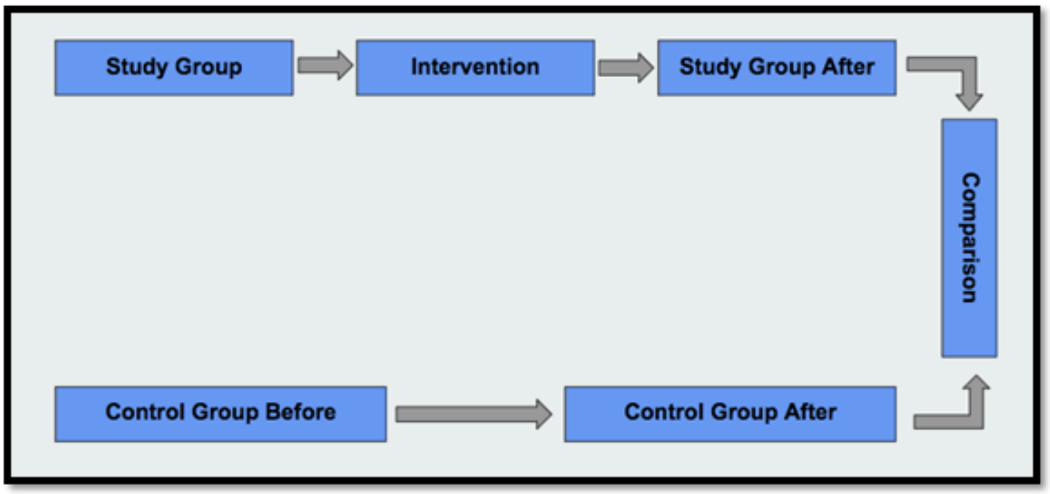


Figure 4: Conceptual framework representing the quasi-experimental design of the study

There was no systematic identification, categorization, and mitigation plans for depression, anxiety, stress, and its negative impacts, especially on students. Students will beable to deal with the adverse effects of stress, anxiety, and depression by desensitizing the factors arousing these mental issues.

The chart representation of the theoretical framework of the study is shown in figure 4. The conceptual framework shows that only one group (i.e. experimental group) receives the mediation and the effect on the dependent variable is measured both before and after the intervention to determine the effect of the intervention on the dependent variable.

Need for the study

According to the WHO (World Health Organization, 2018), depression is a major illness around the world, with an excess of 300 million individuals influenced from all age groups which also may be the leading cause of disability. Their overview indicates women suffer more than men. Also, suicides have their root cause in depression. There has been no research conducted choosing undergraduate students as a sample for the management of psychological issues with the aid of psycho-educational programs in India. It can thoroughly contribute to the research on the management of depression, anxiety, and stress among students. Emotional disturbances in the form of depression, anxiety, and stress exist at a high rate among undergraduate students.

This inquiry explored the utilization of psychoeducational training programs to decrease indications of stress, dejection, and anxiety. It is the solid need for time to influence college understudies to comprehend and realize awareness of the negative outcomes of high amounts of strain, nervousness, and dejection. With the developing seriousness of psychological wellness issues on college grounds and constrained assets accessible for emotional well-being treatment, elective interventions are believed to be pivotal.

Depression, anxiety, and stress have a serious impact on the person and society, which can lead to - negative outcomes including dropping out, increased suicidal tendencies, kinship issues academic issuances like projects, assignments, seminars, new lifestyle, friends, roommates, exposure to new cultures, not sufficient exercise or physical recreational activity, lack of sleep, financial worries, parents expectations, facing interview board for the first time, campus selection, pressure to get a good job after college, failed relationships, and alternate way of thinking along with current problems of health care provision. Considering all of the above, there was a need for greater attentiveness to the emotional wellness of undergraduate students to convalesce their quality of life.

Statement of the problem

The problem for the present study is stated as, “Management of Depression using Behavior Therapy”.

Definition of Keywords

Depression

Depression is a state of mental and physical health that significantly affectsone's daily life activities and may also lead to conditions like insomnia, excessive weight gain or loss, lack of concentration and energy, self-worthlessness, guilt, suicidal thoughts, and many more (Depression: American Psychological Association, 2018).

Anxiety

Anxiety is a mental health condition accompanied by intrusive thoughts, nervousness, and tension and may also lead to physical symptoms such as rapid heartbeat, trembling, sweating, or dizziness. It commonly occurs in completely new or unfamiliar situations for a person (Anxiety: American Psychological Association,2018).

Stress

Stress is a mental state of being overwhelmed, worried, tensed, or run-down which affects both physical and psychological well-being. Stress can sometimes be a boon to an individual by providing the drive and energy to handle situations including examinations or work deadlines. Stress can also be a curse with an adverse effect on overall health (Stress: American Psychological Association, 2018).

Psycho-Education

Psychoeducation intervention encompasses various activities educating and providing information to those seeking mental health services to better understand their mental well-being. It is known that people who have a clear understanding of thechallenges they face, their coping ability, and their strengths can facilitate in handling difficult situations and work on their mental well-being (Psychoeducation:Good Therapy, 2016).

Behavior therapy

Behavior therapy is a type of psychological treatment which encompass a wide variety of approaches and interventions which aids in mental health treatment. One of the significant features of Behavioral therapy is that it focuses on the issues andbehavior of an individual in the current situation and attempts to remove the behavior which is troublesome for the person (Science Direct- Behavior Therapy, 2018).

Objectives of the study

The objectives of the current study are:

1. To evaluate the effectiveness of the psycho-educational program on stress, anxiety, and depression
2. To study the level of depression, anxiety, and stress among undergraduate college students at Mahatma Gandhi University, Kerala.
3. To study the association between various socio- demographic factors leading to depression, anxiety, and stress in students.

4. To evaluate stress, anxiety, and depression level among undergraduate college students by using DASS-21.
5. To compare the stress, anxiety, and depression level among undergraduate college students.

Research hypothesis

Grounded on the review of the literature, the following research hypotheses were made which will be subjected to statistical analysis.

H0 There will be no significant difference between levels of stress, anxiety, and depression among students before and after the intervention.

H1 There will be a significant difference between levels of stress, anxiety, and depression among students before and after the intervention.

H2 The mean level of depression, anxiety and stress were the same for those who attended the psycho-education intervention than those who did not attend.

H3 The mean level of depression, anxiety and stress were less for those who attended the psycho-education intervention than those who did not attend.

H4 There will be no association between socio-demographic characteristics and the level of stress, anxiety, and depression in students.

H5 There will be an association between socio-demographic characteristics and the level of stress, anxiety, and depression in students.

Method in brief

i. Sample:

The sample of the study was selected using the purposive sampling method and comprised 100 Undergraduate students from a college under MG University, Kerala, who were grouped into either an experimental group or a control group.

ii. Tools:

The tools used in this study were DASS- 21 (Lovibond and Lovibond, 1995), a Socio-demographic Questionnaire, and an Informed Consent sheet.

iii. Statistical Methods:

The statistical methods used in the analysis of data collected were Mean, Standard Deviation, Inferential statistics, Probability, Paired t-test, Independent t-test, Pearson's correlation coefficient, Effect Size, and Chi-square.

iv. Organization of the report:

The report has been organized into 5 chapters- Introduction, Review of Literature, Method, Data Analysis, Results and Discussion, Summary, Findings, and Conclusion.

REVIEW OF LITERATURE

Relevance of the review component

A careful and thorough literature review is essential for the research of any level. Getting familiar with the research field is essential for every research scholar. It is essential to grasp the knowledge from past studies and research done on the chosen research topic. A review of related literature will serve two main purposes. First, a thorough and clear description of the research done. Second, the evaluation of the work.

This chapter presents the analyses of previous research carried out on the variables chosen for this study namely, - levels of depression and hopelessness, nervousness i.e. anxiety, and variations in stress, which are the elements responsible for the same. Nevertheless, integrating the factors and findings makes the concept worthy of further investigation after the factual reports from various national and international organizations.

Related studies on the management of depression

This research analyzed the adequacy of CBT and training for relaxation in treating depression in teenagers. Thirty depressed in moderation among young people were allocated at random to either CBT, relaxation training, or a waitlist control state. Subjects under treatment met in small sets for about ten 50-min sessions spanned over more than 5 weeks in a secondary school setting. Result estimates included self-report generation and clinical sessions for depression and also measures of confidence and nervousness. The CBT and relaxation-trained sets were better than the waitlist control especially seen in the decrease of depressive side effects during post-test and 5-week follow-up evaluations. There was no considerable distinction between existing treatments in their adequacy for decreasing depression among teenagers.

Brown RA *et al.* (1984) analyzed the adequacy of a psycho-educational / psycho-instructive methodology in treating unipolar depression. Sixty-three people who fulfilled the Research Diagnostic Criteria (RDC) for unipolar depression were allocated to any of four conditions at random: class, individual mentoring, negligible contact, or deferred treatment control. Members in the direct instantaneous treatment conditions were evaluated pre-determination and post-treatment at one-and-a-half-year follow-up sessions. The deferred treatment set of individuals was assessed before an eight-week holding-up period and following the period. Results demonstrated clinical change by the majority of the existing treatment conditions contrasted with the postponed treatment condition. Disparities between treatment conditions were little, and a few contrasts among high and low repliers to treatment were found. A discussion of the results is presented regarding their ramifications for future clinical utilization of this methodology.

Subjects in the CBT and relaxation-trained conditions moved from moderate depression at pre-experimental to almost non-depressed levels in the post-test. Also, they kept up these

levels in follow-up. The existing treatments also showed improved states of uneasiness and scholastic self-idea. The discoveries exhibit that these transient sets of controlled treatments are compelling fundamentally (Reynolds, 1986).

As indicated by the test by Kevin restraint was instructed as a feature of treatment alongside conduct issues in treatment for children between the age of 9yrs to 12yrs. The children were distinguished in light of the seriousness of misery, i.e. from direct to extreme discouragement utilizing the Children's Depression Inventory. Perceptions noticed were that of huge change subsequent multi-week follow-up that concentrated on self-administration abilities, self-checking of lovely occasions, and gathering critical thinking, keeping in mindthe end goal to enhance social conduct. Nonetheless, there was insignificant change seen among youngsters in the holding-up list. (Kevin D, 1987).

A study conducted on suicide prevention programs, (Garland, 1989) reported thatalmost 95% of programs stick to the theory: "youth suicide is most commonly a response to extreme stress or pressure and could happen to anyone". Nevertheless, studies report that aminimum of 90% of teenagers who suicide is found to have mental illness on psychological autopsy (Brent, 1993).

A study conducted an organized qualitative analysis of psycho-educational interventions (Barsevick *et al.*, 2002) for depression in cancer patients. The study supports the conclusion is that psycho-educational interventions reduce the symptoms of depression incancer patients and also behavior therapy or counseling alone or a combination of both with cancer education is beneficial. Depression and anxiety are some of the mental health issuesfaced by adolescents and children. Various treatments such as psychotherapy, cognitive behavioral therapy, SSRIs, and tricycle drugs are most commonly offered.

Understanding depression through Cognitive therapy (CT) has been observed to beviable in the treatment of sorrow. In contrast with different psychotherapies, CT has appeared to be around equivalent to comportment treatments or therapies in mannerisms, however in some cases better than 'different treatments.' The last correlation is challenginggiven that 'other treatments' contain genuine medications and also medicines without remedial justification for depression.

The meta-study was directed at contemplates who contrasted CT with other treatments. The advantages of CT were observed to be around equivalent to the advantagesof genuine non-CT and social medications, yet better than non-real medicines. The consequences of this study neglect to help the predominance of CT for discouragement. These outcomes bolster the end that all real therapies in mental health for depression are similarly reliable (Wampold BE, 2002).

An open Internet-based CBT (Christensen H, 2002) mediation (Mood GYM, http://moodgym.anu.edu.au) intended to treat and forestall misery in youngsters, accessibleto all

online users, and focused on the individuals who probably have no official contact with proficient help administrations. To report website use, guest characteristics, and variations in depression and uneasiness side effects in those using Mood GYM, a webpage conveying a CB-based preventive mediation to the overall population. All guests who visited Mood GYM webpage over six-month period, which included 2909 registrants out of whom 1503 finished somewhere around one online appraisal. Results for 71 college students enlisted in an Abnormal Psychology course who visited the site for educational training were incorporated and analyzed independently. The fundamental result measures were measures including the number of sessions; hits and time on the server, the number of site hits;Guest characteristics like age, gender, and introductory gold-berg self-report anxiety and depression scores; and Side effect change estimates in light of gold-berg uneasiness and depression scores were noted up to 5 isolated events.

Over the six-month time of a task, the server noted 817284 hits & 17646 separate stints. Roughly 20% of sessions persisted over 16 minutes. Registered users who finished something like one appraisal revealed introductory side effects of dejection and nervousness that surpassed those found in populace-based overviews and those describing an example of college students. For the Web-based populace, both uneasiness and sadness scores diminished altogether as people advanced through the modules. Decisions Web locales are pragmatic and promising methods for conveying psychological conduct mediations for forestalling dejection and tension to the overall population. Be that as it may, randomized controlled preliminaries are required to set up the adequacy of these mediations.

The multivariate study uncovered no critical contrasts between treatment and waitlist conditions. Since the control was jumbled with the Christmas occasion, the authors looked at the CT and IP sets specifically. The two treatments prompted noteworthy decreases in depression and depressive thought processes and increased confidence during mid of treatment, after the treatment, and follow-up assessments but did not vary from one anotheranytime. There existed no proof of differential viability or mechanisms of therapeutic difference as an element of the kind of treatment.

The Adolescent Transitions Program (ATP) (Connell, 2008) engages the family in a multilevel program for prevention intended for giving inside public schools to target child-rearing components identified with the improvement of conduct issues in early youthfulness. The present investigation looks at the impacts of the Programme on the advancement of youth depressive side effects crosswise over early immaturity in an exampleof 106 young people falling into the high-risk category. Young people were enlisted in sixthgrade and chosen as a high risk given the instructor and reports from the parent regarding their conduct or emotional issues.

Depression indications depended on youth and reports from their respective mothers of students in seventh, eighth, and ninth grades. Reception of the family-focused mediation restrained development in depressive indications in high-chance young people over the three yearly appraisals contrasted and side effects in high-hazard adolescents in the control gathering. Results bolster the idea that parental commitment in a program intended to enhance parent administration hones and parent-immature connections can result in security advantages to the adolescents' depressive side effects at a necessary change time of social and passionate advancement.

Rates of teenage depression in the United States of America have progressed to startlingly high rates, which in turn reemphasize the requirement for all-encompassing interventions for affected youth. The study analyzed the effect of wild treatment on youth with depression utilizing blended schemes looks into a plan. Information was gathered using pre-and post-tests utilizing the Reynolds Adolescent Depression Scale-2 and the Measures of Psychosocial Improvement. Subjective information was additionally gathered using multi-month (three), post-course telephonic interviews.

Rates and occurrence of depression diminished after the wilderness treatment mediation, and therapy for the same additionally expanded the occurrence of psychosocial well-being among members, incorporating gains in school progress, diminished substance misuse, and enhanced family connections. Discoveries held up indeed, even after the 3- months post-course. The current study's research assessment investigates segment evaluated the significance of different components of the wilderness therapeutic mediation. Information investigation uncovered the significance of a better group experience on psychosocial well-being, and positive correspondence with relatives diminished depression. Members detailed that being in nature, risk, experience, and evaluation were imperative parts of the change procedure (Christine Norton, 2009).

The investigation analyzed the viability of CBT with college students experiencing moderate to woeful depressive side effects in Jordan. About 84 college students were selected and allotted to the control and intervention sets. The mediation effect was analyzed on proportions of depressive indications, apparent stress, and adapting methodologies at three timelines-gauge levels, post-intervention followed by a three-month post-intervention.

The prototype of intervention utilized was Modified Teaching Kids to Cope (MTKC), while the control set got no treatment. By and large, employing CBT exhibited a critical change in the result measures. At post-intervention, students' scores dropped downto apparent pressure, bringing down depressive side effects, less utilization of shirking adapting techniques, and more utilization of methodology adapting procedures. The discoveries are examined as far as

treatment ramifications and proposals for use in scholarly and health services settings (Hamdan-Mansour, 2009).

The findings of a study on the impact of group music therapy on depression (Wang, 2011) showed that after therapy, for the experimental group, the scores for depression were reduced significantly and there was an improvement in mental health scores. Also, there was no significant difference in the depression and mental health scores for the control group. This clearly showed that group music therapy could alleviate depression and improve mental health effects.

An inspection was done on the impacts of a psychological social self-improvement program (Refresh) (Mickey *et al.,* 2011) to enhance sleep, on quality of sleep, and manifestations of depression amongst college students studying in their first year. Students were made to stay in a single dormitory (n = 48) who took an interest in Refresh and some students in another dormitory (n = 53) partook in a program of equivalence (Breathe) intended to enhance the state of mind and increment of strength to push their limits in stress handling. PDF records for eight weeks were sent by e-mail. Among the members of the Refresh program, 19 of them and, 15 members of Breathe program announced poor rest quality at the base reference point (scores = 5 on the Pittsburgh Sleep Quality Index [PSQI].

Members finished the PSQI and the scale under the Centre for Epidemiological Studies-Depression (CES-D) at the standard reference point and also for the post-intervention. Among the students studying in college, those with poor rest (PSQI > 5) at standard, and those in Refresh were related to more prominent enhancements in rest quality and a more prominent decrease in depressive side effects than cooperation in Breathe group. Among the students with the best rest quality at a pattern, there was no distinction in the standard to post-mediation changes in rest (PSQI) or depressive manifestation seriousness (CES-D).

The National Institute of Mental Health prescribes that medications be intended to keep at the beginning of clinical depression in risk categories. Students are incorporated into those sets that are distinguished as risk groups. This article investigates 16 U.S. clinical preliminaries, directed with samples of young adult students somewhere in the range of 1987 and 2011, to distinguish viable depression anticipation systems and prevention procedures. Proposals from the audit of these studies include extra research to decide deterrence policies for the student populace and the utilization of proof-based counteractive action methodologies in nursing practice to enhance the lives of the risk category populace (Buchanan J. L, 2012). A research study (Ruble *et al.,* 2013) implemented an adolescent depression awareness program (ADAP). A substantial positive change in ADKQ (Adolescent Depression Knowledge Questionnaire) score was found among the students who underwent the intervention.

Another positive change noticed in the intervention group was their readiness to "tell someone" when concerned about depression, which was not seen in the control group. It was remarked (Patrick, 2014) that depression affects youth as regularly as it does the aged, and it recurs throughout a person's life. The severe predicament is that we do not have widely accessible and more effective treatments for depression.

Recent evidence suggests that cognitive behavioral therapy works much better than antidepressants, but they are moderately active and are relatively difficult to access. The therapy must rely on properly trained personnel who can dedicate time to the process. A Study conducted aiming to determine the efficiency of Rational-Emotive Behaviour Therapy (REBT) on adolescent girls' depression (Narges et.al. 2014), was conducted on a control group considering Pre-test/Post-test design. The students were subjected to screening wherein 30 female school students were selected randomly as sample subjects based on the score they obtained in the Child Depression Inventory (CDI) Questionnaire. These selected samples were randomly split into two groups-the experimental groups and the control group. The study group receives 10 sessions and 50 minutes of intervention using REBT. Pre-test and post-test analyses were conducted after the program to check the effectiveness of REBT among the study group. There was a clear indication of a reduction in depression.

Depression is a widely recognized and major hampering issue around the world that is related to enormous societal and individual tolls. Viable mediations exist; however, openness is rare. Guided Internet-Based Cognitive Behavioral Therapy guided iCBT is an encouraging way to deal with contact for individuals needing assistance. In the present pilotinspection, results of a guided iCBT program for improving calmness and downheartednessare scattered from Sweden to Norway.

The guided iCBT intervention was actualized inside a college-based outpatient center by six student administrators, under supervision. Twenty-two members with depression in mild and moderate levels were incorporated into the study. Substantial treatment impacts were discovered for depressive manifestations though little to medium impacts were watched for symptoms of anxiety. The more significant part (55%) of the members were delegated and recouped post-treatment, and more than a third (41%), was in development. None of the members displayed deterioration from the treatment beforehandand after.

However, two revealed a noteworthy disintegration from the present treatment on half-year development. By benchmarking these outcomes against those detailed in the four unique Swedish studies, it was seen that the medication impact in the Norwegian investigation was marginally more at post-treatment and a little lesser in six months follow-up as weighed with the result in the Swedish investigations. The outcomes ought tobe deciphered with an alert, as our example was little and did not have a control group. (Jakobsen H, 2017)

Related Studies on the management of anxiety

Evaluation in a study (Barrios B. A. *et al.*, 1979) on adapting abilities while preparing for the management of tension/nervousness. The training plans investigated incorporate nervousness handling training, relaxation training, sign-controlled relaxation, poise desensitization, and self-articulation alteration. While vast numbers of the investigations on these procedures were with errors, the treatments were accounted to be fruitful in diminishing circumstance-specific nervousness responses. Blended outcomes were acquired for reactions other than those individually treated (summed up impacts).

A research-based study (Stephens RL, 1992) analyzed the adequacy of audiotaped imaging/symbolism in diminishing tension and enhancing test execution amongfirst-year students studying nursing. Volunteer subjects were allocated to three clusters randomly by categorical grouping which was - only symbolism through imagery, relaxing through image symbolism, and a control set for no treatment. Post the test, the state of nervousness grades in these sets were altogether lower ($p = .001$) than those in the no- treatment control set. Test execution did not vary essentially ($p = .067$). Subjects utilizing the audiotaped symbolism of images detailed an expanded feeling of prosperity, enhanced capacity to rest and sleep, more prominent vitality, and enhanced self-esteem.

To assess the plausibility and adequacy of a group psychological social treatment byCBT which is for tackling the uneasiness issue with teenagers who were African- American school-based. Twelve young students (average age = 15.6 yrs.) with uneasiness issues were allocated to Cognitive Behavioral Therapy ($n = 6$) in random or an attention support groupunder a control state (AS-Control; $n = 6$).

The two cluster groups met for ten sessions in a similar secondary school. Entry treatment fixings in CBT included an introduction, relaxation, social aptitudes, and psychological rebuilding. Enter fixings in AS-Control including advisor and companion bolster. During the pre and post-treatment, demonstrative meetings were conducted, and members finished self-report proportions of tension. During post-treatment sessions amongthe individuals who went to extra sessions rather than just the one-treatment session, three-fourths of the adolescents in CBT never again met analytic criteria for their essential nervousness issue, as compared to the one-fifth in AS-Control.

The ratings from clinicians and self-report points of tension and nervousness were altogether reduced post-treatment in CBT, in contrast with the AS Control. Adolescents in the two sets detailed reduced levels of social nervousness between the pre and post-treatment. Discoveries bolster the attainability of actualizing a manual-based CBT in an urban school setting. Rates of response among the youth who were African-American werealmost like those found in investigations with white (Ginsburg G.S, 2002).

The essential targets of this study were: (a) to assess the limit of a very much approved anxiety anticipation and passionate flexibility program (FRIENDS) to decrease mental misery in youthful socially assorted transients of non-English talking foundation (NESB), and (b) to decide if any change in mental indications and enthusiastic versatility would be kept up after some time. About 324 students separated by socio-cultural origins (previous Yugoslavian, Chinese, & blended ethnic) and academic levels (primary and secondary school), were selected from various Australian states and assigned to either an intervention or hold-up list condition.

All of the students finished the standard measures of confidence, symptoms that were internalizing, and also the future viewpoint both before and after a 10-week FRIENDSmediation or hold-up duration. About 139 members from Queensland were likewise inquiryfor a half year following the culmination of the Programme FRIENDS to decide its long-haul impacts. Reliable with past preliminaries including socially differing populaces, NESBmembers who experienced FRIENDS preparing showed altogether more prominent confidence, less disguising side effects, and a less cynical future viewpoint than hold-up listmembers at both, post-mediation and the half-year follow-up appraisal intervals. This investigation gives experimental proof of the usefulness of the FRIENDS program as an asset for specialists and institutions working with the youthful socially differing transient populace. (Paula *et al.,* 2003).

A study on Arts-based interventions to reduce anxiety levels among college students (Aaron *et al.,* 2011) examined the therapeutic utility of creative ventures for the reduction of anxiety among undergraduate college students enrolled at a public university in the United States of America. The students were randomly assigned to take part in one out of three conditions-an individual art project (n ¼ 30); a group art project (n ¼ 30) or a non-artcontrol project (n ¼ 30). An overall observation within subjects was made an effect of anxiety was noted wherein participants reported reduced anxiety levels following the intervention. A statistical interaction showed that anxiety was reduced by implementing both individual and group arts interventions, and not by the control condition in which participants completed puzzles. The extent of anxiety reduction did not differ between the individual and group conditions. To conclude, even though presently underutilized, art interventions may be a feasible form of anxiety reduction among college students.

Studies conducted proved the coping strategy was observed in physical education and engineering students. It was concluded that physical education students showed better managing approaches (Kumar *et al.,* 2012). They further studied that engineering students have lesser self-management ability as there was more load of academics to be covered in a short duration leading to anxiety and many other difficulties in their daily life.

A study (Firth *et al.,* 2017), focused on the extent of evidence that highlights theimpacts of social media to improve mental health. The influence of an 8-week social media intervention

on the perspective of anxiety in college students was evaluated experimentally and studied for energetic (active) against static (passive) content on physical activity behaviors.

Related studies on the management of stress

Research (Lumley *et al.,* 2003) was conducted to understand whether writing about stressful events improves the GPA (Grade point average) and whether the decrease in writing leads to a negative mood. The study included a sample of 74 students. Those students reporting increased bodily symptoms were randomized to write for 4 days about their stressful situations (disclosure group) and rest on time management (control group). The students rated their mood level before and after writing daily while the academic transcripts provided GPA for the base standard and subsequent semesters. The results of the study showed that those who wrote about general stress situations of their life (disclosure students) led to improved academic results and became less distressed after writing.

Undergraduates who have high levels of stress tend to confront an increased threat of scholastic troubles, substance misuse, and emotional issues. To upgrade student stress handling and well-being advancement practices, an online stress administration mediation called MyStudentBody- Stress (MyStudentBody- Stress) was created and tried. Undergraduates at six U.S. universities were placed under one of three conditions: MyStudentBody-Stress, control well-being data site, or no mediation. The differences between the categorized sets, stress control, and conduct measures were thought about at benchmark, and at one-month, 3-month, and at half-year periods. Even though there were no comparisons on vital result factors, optional studies demonstrated that MyStudentBody- Stress members will probably build physical action week after week, utilize particular stress administration plans, and display diminished nervousness and family issues. These discoveries show some possibly valuable impacts of the online stress administration program for undergraduates (Chiauzzi E, 2009).

The study assessed the impacts on stress, reflection, compassion, and an expectation of two eight-week, 90-minute / week programs for undergraduates in reflection-based stress administration tools. Techniques: After a pre-experimental, investigators distributed the students in training for a mindfulness-based decrease of stress (MBSR; n = 15) and Eswaran's Eight-Point Program (EPP; n = 14) or control (n =15) Of a waitlist. The creators assembled pre-experimental, post-test, and 8-week follow-up information on self-report result measures. The creators observed no post-treatment contrasts among MBSR and EPP or post-test and eight-week development ($p > .10$).

In comparison with controls, treated members (n = 29) exhibited huge advantages concerning stress ($p < .05$, Cohen's, $d = - .45$) and absolution ($p < .05$, $d = .34$) and minimal advantages for rumination ($p < .10$, $d = - .34$). Evidence proposes that contemplation-based stress handling and improves forgiveness among school students. Such projects justify and

additionally think about as potential well-being advancement apparatuses for school populaces (Tim Flinders BA, 2010).

The investigators inspected the impact of a six-week mind Body mediation on undergraduate students' mental trouble, uneasiness, and awareness of stress. About 128 students were arbitrarily allocated to an experimental set (n = 63) or a control set that was n= 65).

The study set got six sessions of 90 minutes of guidance and subjective social aptitudes under CB skills. The checklist of symptoms of the 90-Revised, State-Trait Anxiety Inventory of Spiel Berger, and the Perceived Stress Scales were utilized to assess the students' mental state pre and post-mediation. Ninety students (70% of the primary sample) finished the post-assessment measurement. Inherently more noteworthy drops in mental misery, state of uneasiness, and apparent stress were observed in the trial set. This concise training of mind-body might be helpful as a precautionary intervention for students, as per the authors, who requested additional research to decide if the observations from the treatment with impact can be managed over a more drawn-out timeframe (Gloria R et.al. 2010).

A study was conducted aiming to determine the efficiency of cognitive behavioral management of stress on the levels of Students' homesickness (Shahmohammadi, 2011). By making use of behavioral tactics of stress management including relaxation and muscular relaxation, stress and nervousness can be alleviated.

The subjects in the experimental group had undergone 10 sessions of cognitive behavioral stress management training and those in the control group received no treatment.The prevalence of homesickness among the students and its demonstrated relationship withemotions such as sadness, withdrawal, depression, etc. are experienced by homesick individuals and cannot be relieved immediately. The outcome of the study showed that the guidance can be useful in reducing homesickness and also the problems the students experience joining a new university environment. The study examined the impact of multiple stress management interventions (MSMI) on coping responses and symptoms of stress among Iranian students (Chinaveh, 2013).

Sixty students with higher scores for avoidance responses, and stress and lower scores for approach responses were assigned randomly to one out of two groups-experimental or control group. Sixteen 2-hour session interventions were conducted 8- a week for the experimental group. Responses to questionnaires for both groups were recordedbefore and after the intervention. The outcome of the study showed that the effects of MSMI were stable over time.

A study was conducted (Hintz *et al.,* 2015) to measure the effectiveness and feasibility of theory-based online intervention which is designed to enhance stress management in

undergraduates. Two pilot studies were conducted to ensure that the intervention would be sufficient.

The population of the study was chosen randomly which included 292 psychology students who were pre-screened to have lower scores on the present control subscale of the Perceived Control over Stressful Events Scale to one of three conditions: the present control intervention, the present control intervention plus feedback, and stress-information only. 223 students started with the intervention, out of which 195 students completed the post-test and three-week follow-up. The present control intervention and present control intervention plus feedback groups had lower levels of depression, stress, and anxiety; and perceived stress when compared with the stress- information the only group. Moreover, mediation analyses showed that variations in present control mediated the impacts. The intervention represents a potentially valuable tool for college mental health services.

Some of the significant stressors reported by pre-university college students that led to academic stress were the shortage of time, lack of confidence, diversions, a challenge to meet academic standards of self and others, and conflict with peers (Manjula, 2016). The most commonly used coping methods include distractions, acceptance, denial, and problem-solving. The universal brief intervention seems to affect coping and also the time management of students. The findings of the study indicate the efficacy of a universal group stress management program in alleviating academic stress. It is expected that the interventions with many sessions throughout college might turn out more beneficial.

Graduate students and working adults are in particular susceptible to stress and other mental health issues. Therefore, prevention stratagems are needed to promote their mental well-being. In recent years, mindfulness-based training is effective in the treatment of physical and psychological health conditions. Mak (2017), examined the efficacy of an Internet-based Mindfulness Training program (I MIND) in comparison with an Internet-based cognitive-behavioral training program (I CBT) to promote mental well-being among graduate students. The participants for the study were chosen online and offline using mass emails, newspaper ads, magazines, pamphlets, and announcements on socialnetworking websites. The participants were categorized into two groups- I MIND (N= 604) and I CBT (N= 551). Participants underwent eight web-based sessions consisting of information and exercises related to mindfulness or cognitive behavioral principles. The trained first-tier supporters provided telephone or email support and were supervised by the research team of the study.

The main results of the study included mental and physical health-related measures, which were self-assessed online at pre-program, post-program, and three-month follow-up. Out of the 1255 participants, 213 and 127 students completed the post and three-month follow-up assessment respectively. The missing data was handled by making use of restricted maximum

likelihood estimation. In the study, both I MIND (n= 604) and I CBT (n= 651) have effectively shown improvement in their mental health, psychological distress, energy level, life satisfaction, and sleep disturbance.

Students are always exposed to undermanaged stress and its effects, and even though evidence-based stress reduction techniques (SRT) can be used as a remedy, many do not. (Bistricky, 2018) examined to what extent a framework integrating cognitive, social, behavioral, and experiential factors related to influential health behavior models could affect increased intention to use SRTs, and willingness to recommend SRTs. The Health Belief Model components, the theory of planned behavior descriptive norms, and prior SRT use predicted significant variation in intention and experienced effectiveness of particular SRTs also predicted intention, and Health Education messages increased both results.

Related studies on the management of stress and anxiety

The research was conducted (Peterson, 1992) to conclude the helpfulness of group stress reduction programs based on mindfulness meditation for patients with anxiety disorders. The results of the study showed that the number of subjects facing panic symptoms and anxietywas reduced.

Investigations (Misra, 2000) of the interrelationship among educational stress, anxiety, time management, and leisure satisfaction with participants including 249 undergraduates. The outcome of the study indicated that students experienced more stress due to pressure and self-imposed stress. Females experienced higher stress and physiological reactions to stressors than males, which indicates that they sweat, stutter, and experience headaches dueto stress more than males. Males scored lower than females on trait and state anxiety. They experience higher satisfaction from leisure activities. Females manage their time more efficiently when compared to males. This clearly shows that female students had better control of their time, set and prioritized goals, planned, and had an organized approach to activities.

Related studies on the management of depression and anxiety

An investigation (Larun *et al.*, 2006) was conducted to analyze the effect of exercise interventions in declining the level of depression or anxiety in children and adolescents up to the age of 20. The author conducted the study by selecting 1191 participants between the age groups 11 and 19. Eleven trials were conducted with vigorous exercise versus no intervention in the participants. Out of this, 6 studies reporting anxiety scores showed a non-significant trend in favor of the exercise group and 5 reporting depression scores showed a statistically significant difference in favor of the exercise group. Even though there appearsto be a decline in depression and anxiety scores due to exercise, there is a limit in concluding due to the clinical diversity of participants, interventions, and methods of measurement. There is a difference in results when there is a change in the intensity of exercise.

Anxiety and depression are normal mental issues for adolescents and children alike. The most common treatments offered are psychological (as in psychotherapy), psycho-social (e.g. subjective social treatment), and organic (as in SSRIs or tricyclic drugs). The vast assortment of restorative interventions raises inquiries of clinical viability and symptoms. Physical exercise is economical with scarcely any, adverse reactions. Sixteen investigations with an aggregate of 1191 members somewhere in the range of 11 and 19 yrs. old was incorporated. Two authors independently chose preliminaries for consideration, evaluated the methodological quality, and extricated information. The preliminaries were joinedutilizing meta-investigation procedures. A synbook of narration was performed when the announced information did not permit measurable pooling. The authors inferred a little impact for practice in decreasing depression scores and anxiety scores in the overall public of youngsters and teenagers.

The modest number of studies included, and the clinical assorted variety of members, mediations, and approaches for estimation restrict the capacity to make inferences. It has little effect on whether the activity is of either higher or lower force. The impact of activity for children in treatment for tension and depression is obscure as the proof base is rare. (Heian F *et al.,* 2006). In an experiment (Neda Hatami et al, 2011) in an alternate socialsetting, we utilized a trial, randomized-controlled configuration to look at the effect of potential gathering-based MBCT to decrease uneasiness and melancholy, normally revealedby students previously, amid, and after college exams. The plan enabled us to test the believability and practicality of this restorative strategy in a Non-clinical example.

The discoveries of this fundamental study demonstrated that the function of MBCT brought about a precise decrease in scores obtained by BDI, BAI, ATQ, and DAS in over five evaluation focusing points, in particular, pre-test, session 4, and session 8, multi-month and a half year follow up. The outcomes back the supposition that MBCT procedures and practices aid students in not encountering large amounts of tension, despondency, and negative programmed contemplations, broken states of mind amid the period of exams.

The ongoing examination has uncovered concerning rates of uneasiness and depression among college students. All things considered, just a little level of these students get treatment from college well-being administrations. Colleges are in this way tested by initiating preventive programs that locate stress and decrease resultant nervousness and misery. A deliberate audit of the writing and meta-investigation was directed to look at the adequacy of interventions that went to diminishing worry in college understudies. Studies were qualified for incorporation if the task of study members to test or control sets was by random assignment or parallel group outline. Retrieved examinations spoke of an assortment of mediation approaches for students in an expansive scope of programs. Twenty-four examinations, including 1431 students were incorporated into the meta-investigation. Cognitive, social, and mindfulness mediations were

related to diminished manifestations of tension. Optional results included lesser levels of despair and cortisol. This analysis gives proof that intellectual, behavioral, and mindfulness mediations are successful in decreasing worry in college students. Colleges are urged to incorporate such programs generally accessible to students. Furthermore, in any case, future work should center on creating pressure-decrease programs that draw in male students and look into their requirements (C. Regehr D. *et al.,* 2013).

Nowadays, undergraduates face more complex issues when compared to a decade earlier- such as difficulties in relationships, suicidal thoughts, and many more. Velayudhan *et al.* (2010) conducted a study to decide to what extent medical students were able to cope with anxiety and depression via counseling. Beck Anxiety Inventory and Beck Depression Inventory were used for this study. Around 120 medical students were taken as asample, which was randomly selected from a private medical college, which includes 30 males and 30 females in each of the two groups (experimental group and control group). The results of the study showed that the level of anxiety and depression among the students was found to be reduced after counseling. Students in the experimental group showed decreased levels of anxiety and depression; whereas the control group, which did not get thebenefit of counseling, continued to have the same levels of anxiety and depression.

Colleges are urged to incorporate such programs generally accessible to students. Furthermore, in any case, future work should center on creating pressure-decrease programsthat draw in male students and look into their requirements (Regehr C, 2013). The research investigated whether the psycho-education model was effective in the improvement of the quality of life of females with comorbid anxiety and depression (Mwangi, 2017).

The various tools used for conducting this study are Beck's Anxiety Inventory (BAI)for anxiety, the Beck's Depression Inventory (BDI) for depression, and also the EUROHIS 8-item-QoL index. Beck's Inventories are clinical tools and the DASS-21, used in our study is a non-clinical tool. Almost 26.7 % and 79.4% of women were experiencing depression and anxiety respectively. The study also showed that if this was not treated, it could degenerate severe symptoms. A regression analysis is conducted at the end of the study, which clearly showed that the treatment of psychoeducation helped significantly in the improvement of co-morbid signs of anxiety and depression, which further lead to significant improvement in QoL (Quality of Life) scores.

Related studies on the management of depression, anxiety, and stress

Donkeret stated that a global meta-analysis of the literature on the interventions of psychoeducation showed that it helped in reducing the symptoms of depression and distress including anxiety. Dolbeault (2008) demonstrated the feasibility and effectiveness of a psycho-

educational intervention that has reduced the negative effects which are present at the end of treatment.

Through the meta-analysis, it was proved that passive psycho-educational methods of interventions are effective examples to be offered to recipients (Donkeret *et al.*, 2009). When compared with the controls and the intervention groups of distress and psychological symptoms, the above-used meta-analysis shows minimal but an effective significant result.

Research (Ryu E *et al.,* 2009) inspected the viability of stress adapting program inlight of mindfulness meditation concerning stress, nervousness, and sorrow experienced by students studying nursing in an Asian nation, Korea. A non-equivalent, cluster for the control reference, the pre-post-test configuration was utilized. A suitable sample of 41 students studying nursing was arbitrarily allotted to trial (n = 21) while control clusters (n = 20). The stress levels were estimated with PWI-SF (5-point) created by Chang. Nervousness was estimated with Spiebergers state uneasiness stock.

Depression was estimated with the Beck depression stock. The trial cluster went to 90-min sessions for about two months. No mediation was regulated to the control gathering. The results for the two sets appeared (1) a huge contrast with the stress scores ($F = 6.145$, $p = 0.020$), (2) a huge distinction in uneasiness scores ($F = 6.985$, $p = 0.013$), and (3) no critical contrast in scores of depression ($t = 1.986$, $p = 0.056$). Program to adapt to stress-given care reflection was a compelling mediation for students studying nursing to diminish their stress and nervousness and could be utilized to oversee worry in student medical attendants.

Investigation (Pahlayanzadeh, 2010) evaluated the impact of psycho-education on depression, anxiety, and stress in family caregivers of patients who have mental disorders. 100 caregiver were included in the study and their level of depression, anxiety, and stress were assessed using DASS. The result of the study showed that the level of depression, anxiety, and stress was reduced significantly for the psycho-educational intervention group and was effective and helped in the improvement of the quality of life of both patients and caregivers.

A study was conducted on nursing students to determine the effectiveness of stress management training programs on depression, anxiety, and stress Mohsen (Yazdani, et. al, 2010). A group of students was randomly selected and split into two groups. A questionnaire was designed considering individual characteristics and the Depression, Anxiety, and Stress Scale (DASS-42), and the groups completed the questionnaire before, after, and after one month of study.

One group of students was subjected to stress management training for 8 two hour sessions, twice a week and the other did not receive any training. The mean scores of depression anxiety and stress had no significant difference in the two groups, but after the training program,

the mean scores in the trained group were lower than the untrained group. The reduction in depression anxiety and stress levels in the trained group was greater than in the untrained group.

Globally, it was found that graduate students have a high prevalence of mental health issues (Ratanasiripong, 2011). Alternative interventions were required due to the growing severity of mental health issues on university campuses and also due to limited resources for mental health treatment. The study explored the use of biofeedback training to help in diminishing the symptoms of stress, anxiety, and depression. A sample of 60 graduate students from public health nursing was assigned randomly either to the biofeedback intervention group or to the control group. The results obtained shows that the biofeedback intervention was effective in reducing stress, anxiety, and depression level over 4 weeks, while the control group had increases in symptoms of anxiety and depression over the same timeframe.

The review (Regehr *et al.,* 2012) provides evidence that cognitive, behavioral, and mindfulness interventions are effective in reducing stress levels, anxiety levels, and depression in university students. The favorable results benefit not only the individual students but also universities in enhancing the student experience and diminishing student mental health issues. Graduate students face not only academic challenges but also challenges with independent living. This leads them to more stress, anxiety, and depression. Shamsudhin *et al.* (2013) conducted a study to assess the prevalence of depression, anxiety, and stress, and identify their correlates among the students. The study was conducted on 506 students of the age group 18- 24 years from four public universities in Malaysia. Analysis of the results showed that among all students, 27.5% had moderate, and 9.7% had severe or extremely severe depression; 34% had moderate, 29% had severe or extremely severe anxiety, and 18.6% had moderate and 5.1% had severe or extremely severe stress scores based on the DASS-21 inventory. The level of anxiety is much higher than either depression or stress level, with some differences in their correlates except for age. These differences need to be further explored to develop better intervention programs and appropriate support services targeting this group.

A clinical trial was conducted with Experimental (N=1181) and Control (N=1926) groups (S K Muriungi *et al.,* 2013) from different Kenya Medical Training College campuses. To collect the data a social demographic questionnaire was made at baseline only, while Beck's Depression Inventory, Beck's Hopelessness Scale, Beck's Anxiety Inventory, and Beck's Suicide ideation were used for baseline, mid-point, and end-point assessment at 3-month intervals.

The experimental group was subjected to a total of 16 hours of structured psycho-education. At 3 months of the trial, there was no significant reduction in symptom severity between the Experimental and control groups, but there was a significant difference at 6 monthsof

the trial. To conclude, Psycho-education can effectively reduce the severity of symptoms of depression, hopelessness, suicidality, anxiety, and risk of substance abuse at 6 months.

A cross-sectional study was conducted to examine Socio-Demographic Factors and their association with depression, Anxiety, and stress in Junior College Students in a rural area of India (Baviskar *et al.,* 2013).

To examine, the study was conducted on 360 students of P.V.P Arts, Science and Commerce Junior College in Loni, 120 students were selected from each stream through a stratified random sampling method. The questionnaire was designed with general information and Depression Anxiety Stress Scale-42 (DASS). The percentage, mean, standard deviation, and Z values of DASS scores were calculated by statistical analysis. The outcome of the study showed that Socio-Demographic factors have an important relationship with depression, Anxiety, and stress in students.

The Experimental group was subjected to 10 sessions of training for 50 minutes/sessions and after the training session, the groups again answered the forms. The data collected was analyzed using the Analysis of Covariance (ANCOVA) test through SPSS software. The experimental group showed a significant decrease in depression inventory scores after the training sessions. A study was conducted to assess the levels of depression, anxiety, and stress among medical students by making use of DASS (Kumar *et al.,* 2015).

More than 30% of medical students face mental health issues like depression, stress, and anxiety. The majority of students were having a mild degree of mental health issues, which need to be addressed immediately before it exhibits a severe level. It was recommended (Roy et al.,2015) that educational organizations should go for simple relaxation methods for students with high stress and cater to support for their well-being and better academic performance.

A study (Nikitha *et al.,* 2015) that programs on academic stress management are very effective with proven results but don't improve academic performance in any way. A study on determining the existence of depression, anxiety, and stress among medical undergraduates in a medical institution recommends that educational institutions should adopt relaxation techniques for students who are highly stressed and provide support to improve their academic performance as well as their well-being (Priya *et al.,* 2015).

Stress is described as a hindrance to concentration, decision-making, problem-solving, and other required abilities for students' learning (Eman *et al.,* 2015) and also includes symptoms and illnesses among students such as depression and anxiety. The main aim of the study is to determine the impact of health education programs on depression, anxiety, and stress among female nursing students and concluded that it has a positive effect in diminishing stress, anxiety, and depression in the study group post-immediate and three months after the program. Modern life is full of stress.

A study was conducted (Mutalik, 2016) to evaluate the symptoms of anxiety, depression, and stress among undergraduate students of govt. degree college Bagalkot. DASS- 21 (Depression, Anxiety and Stress Scale) and General Health Questionnaire (GHQ- 28) wasused to weigh the severity of Depression, Anxiety, and emotional distress among the students. The results showed a high grade of depression, stress, and anxiety among undergraduate students, which clearly shows the amount of burden the students have to bear.The study concludes that early interventions are necessary to enhance the quality of life and diminish stress levels. An investigation was done (Suryani, 2016) to test the effect of psycho-education on the stress level, anxiety level, and depression level of pulmonary tuberculosis patients. The outcome of the study showed that psycho-education was effective in reducing the levels of depression, anxiety, and stress in pulmonary tuberculosis patients.

A study was conducted to determine the prevalence of depression, anxiety, and stress, among medical students in Nepal, and its association with socio-demographic characteristics (Kunwar D *et al.,* 2016). For the study, all the students from 1st to the final year of Kathmandu University Medical School (KUSMS) and Dhulikhel and Manipal College of Medical Sciences (MCOMS) Pokhara, Nepal participated in the questionnaire.

The data collected from the questionnaire were analyzed by a statistical package for social science and also Depression, Anxiety, and Stress Scale was used to measure depression, Anxiety, and stress. The study reported that the overall prevalence of depression was 29.9%, anxiety was 41.1% and stress was 27% among all participating medical students also living condition (living in a hostel and rented house) was a major reason for Depression.

A brief description of the investigation carried out in the last 3 decades regarding the effect of stress, anxiety, and depression on college students (Vijay Mahadeorao Bhujade, 2017) is presented. College students undergo stress during their transition from high school to college. During this transition, the students see a lot of firsts like a new lifestyle, friends, roommates, and exposure to new cultures. The students go through stress when they are not able to handle these firsts, due to homesickness, fear of failure, emotional problems, familyissues, inferiority complex, and difficulty in coping with other students.

The possible preventive measures for reducing stress, depression, and anxiety are stress management training programs, students should undergo counseling and mentorship. To conclude, the stress anxiety and depression in students reduce after undergoing training programs and counseling. The colleges should have counseling centers and mentorship so that students can approach them to share their issues.

The research was conducted (by Levin *et al.*, 2017) by testing acceptance and commitment therapy (ACT), a web-based self-help program to treat a wide range of psychological problems faced by students. A sample of 79 graduate students was randomized to

web-based ACT or a waitlist condition, with assessments at baseline and post-treatment. The results of the study indicated adequate acceptability and program engagement for the ACT website.

In comparison with the waitlist group, the participants who received ACT therapy improvedon overall distress, social anxiety, general anxiety, academic concerns, depression, and positive mental health.

Related studies on psychoeducation and psychological symptoms

Psychoeducation has been observed to be powerful in the treatment of numerous teens' emotional wellness issues. An investigation led in China tried the impacts of a 16- week psychoeducation course on the emotional wellness status of secondary school scholars. In the course, the scholars, who had a mean age of 14, were taught the mental and emotive segments of sex, identity, adapting assets, scholastic learning, and rapport with fellows and romantic companions. Signs pertinent to identity and mental challenges werechecked both before and after the scholars finished the psychoeducation course.

The investigation found that the finalization of the course manages to decrease numerous mental signs, inclusive of repeated thoughts, conduct, interpersonal sensitivity, overmuch tension and stress, and thoughts and behaviors indicative of general psychosis (Wang, 1997). However, the article neglected to note whether subsequent meet-ups were directed to find out whether upgrades held on.

Furthermore, an inquiry directed by Kellner (1999) found that an anger guidance preparing program that incorporated a psychoeducational part was successful in diminishingsigns of a direct issue in youths.

The program included psychoeducation relating to anger separation, perceiving indications of expanding anger, and professional social reactions to anger. After the finalizationof the program, the teenagers in the inquiry reported changes in physical aggressiveness and fewer signs of conduct disturbance by their parents and teachers there was no follow-up to check the progress, in addition, the sample size of this study was quite small - only seven teens participated.

Psychoeducation and depression

Concerning youth depression, techniques in psychoeducation are found to be effective in diminishing depressive perceptions. An inquiry was conducted (Gaynor *et al.,* 2002), examining the effects of integrating a psychoeducational-cognitive-behavioral-treatment with remedies concentrating on social interactions of youths with depression. The sample of the study included community residents in the age group of 13 to 18 yrs., who fulfilled the standards for depressive disorder. Standard data were collected before the treatment from each of the participants. A post-test was conducted after the treatment phase. The outcomes of the study showed that the mixture

of psychoeducation and rehabilitation was found to be effective in the reduction of signs of depression in youths.

Moreover, the positive results obtained were seen to be retained when their cognitions were examined at a 3-month track monitor. Nevertheless, teens who had severe depression did not show significant improvements. Another inquiry conducted by (Wellset al. 2002), examined how effective a psychoeducational program is in the improvement of self-esteem and reducing the risk of giving up high school among teenagers. The population of the sample included 80 adolescents who belonged to the age group between 14 to 16 yrs.from a non-clinical community.

The results of the study showed that the eight-week psychoeducational program helped in the improvement of adolescent self-esteem and reduced rates of dropout. Improvement in self-esteem, in turn, led to improvement in other areas of mental health such as depressive cognitions. Nevertheless, the psychoeducational program was not performed on the control group nor was follow-up done to ensure whether positive outcomeswere retained.

Research shows that psychoeducation may lead to improvement in teens' depressionas it helps them in coping with their downheartedness. A psychoeducational program called "Helping Adolescents Cope" focused on determining the coping facilities and also reducing the use of coping approaches that are ineffective. The population of the initial study included 112 participants who were divided into three groups to assess the effectiveness of the psychoeducational program. Before conducting the program, the students from three different schools were subjected to screening for severity levels in symptoms (per the Child Depression Inventory) and if they felt that they needed help to establish coping resources.

The treatment group included students who showed that they need help in establishing coping resources and participated in the psychoeducational program. The first control group did not join the program which included students who also needed help in establishing coping resources. The second control group was also not part of the programthat included those students who did not show the need for help in establishing coping resources. The results of the study indicated that the psychoeducational program was effective in reducing depression symptoms in adolescents and ineffective coping strategies.This also helped in improving adolescents' coping approaches and resources (Hayes, 2005).

Other studies suggest that increasing the symptomatic knowledge and the potential effects of depression can be the partial reason why psychoeducational techniques are effective. Improvements in youth (Portzky *et al.*, 2006) a study looked at the impactof a psychoeducational program on their awareness, outlooks, and self-managing ability of hopelessness especially concerning suicidal thoughts.

The population of the study included 172 non-clinical participants with an averageage of 15.6 years. The members of the study were grouped into four categories- (a) a treatment group

which was evaluated many times during the program (b) a treatment group that is only evaluated at the end of the program (c) a control group which is measured many timesthroughout the study (d) a control group gauged only one time during the study. Even though there were no improvements concerning their coping abilities or hopelessness, the psychoeducation program was effective significantly in enhancing teens' awareness about suicidal ideations. The results showed that the participants in all four groups had initially very high rating levels of downheartedness and self-managing ability which indicated that anxiety and ineffective coping were recognized in the functioning of teenagers. Furthermore, the authors also acknowledged that the program was designed to address adolescent awareness and not coping abilities.

Psychoeducational techniques often lead to a sense of enhanced confidence by helping people in understanding the symptoms and the reason behind why they might be feeling the way they do. Therefore, there is a consequent decline in maladaptive symptoms.

"Girls Circle" is a psychoeducational program that is intended to help adolescentgirls by increasing their self-efficacy, perceived body image, and social connection which could be directly involved in their development. Also, it is necessary to establish healthy and stable interpersonal relationships.

Hossfield (2008) reported that although "Girls Circle" gives a sense ofempowerment to adolescent girls, it is necessary to focus on the fact that only qualitative standards were used to evaluate the program. Quantitative measures using an experimental approach are still ongoing research.

Another psychoeducational program called "Adolescent Depression Empowerment Psychosocial Treatment" (ADEPT) also helps in creating a sense of liberation in adolescents by reducing depressive thoughts. The program integrates cognitive-behavioral therapy, interpersonal therapy, and family systems therapy, which is made to enhance awareness levels about their symptoms and deploy the knowledge into the family group.

McClure et al. (2005) reported that the initial results concerning the effectiveness of ADEPT established that it is effective in improving adolescent liberation and reducing depressive thoughts. Nevertheless, many limitations were noticed, such as the studies conducted so far consisting of only a small sample. Pre-test/ post-test designs were used with no control groups. Furthermore, ADEPT was made as a mediation for African- American youth and the outcomes of the study cannot be generalized across ethnic groups.

METHOD

Grounded on the review of literature, hypotheses and study design were finalized to meet the key objectives of the study. This chapter deals with the methodological aspects of the current research and describes the research design deployed in this study, the sample and population considered for the study, the sampling method deployed, tests administered, the data collection procedure, and statistical methods followed to arrive at reliable results and facilitate proper analysis.

Research design for the present study

For the current research study, a pre-test and post-test experimental design were adopted (see figure 5). The quasi-experimental design study with a control group was conducted in one of the undergraduate colleges affiliated with Mahatma Gandhi University. The student's age group was 18-21 who have submitted their informed consent in writing and were included in the current study. The independent variable is socio-demographic characteristics. The dependent variables in the study are depression, anxiety, and stress.

Psycho-educational program is used in the investigation as it can eliminate maladaptive behavior and learn more effective behavior and also identifies factors that influence conduct and determine what can be done for the problematic behavior. After the intervention of two months, the post-test was administered and responses were recorded based on the DASS manual. The data collected during the study were analyzed using SPSS software. The findings of the study have been reported by per American Psychological Association (APA).

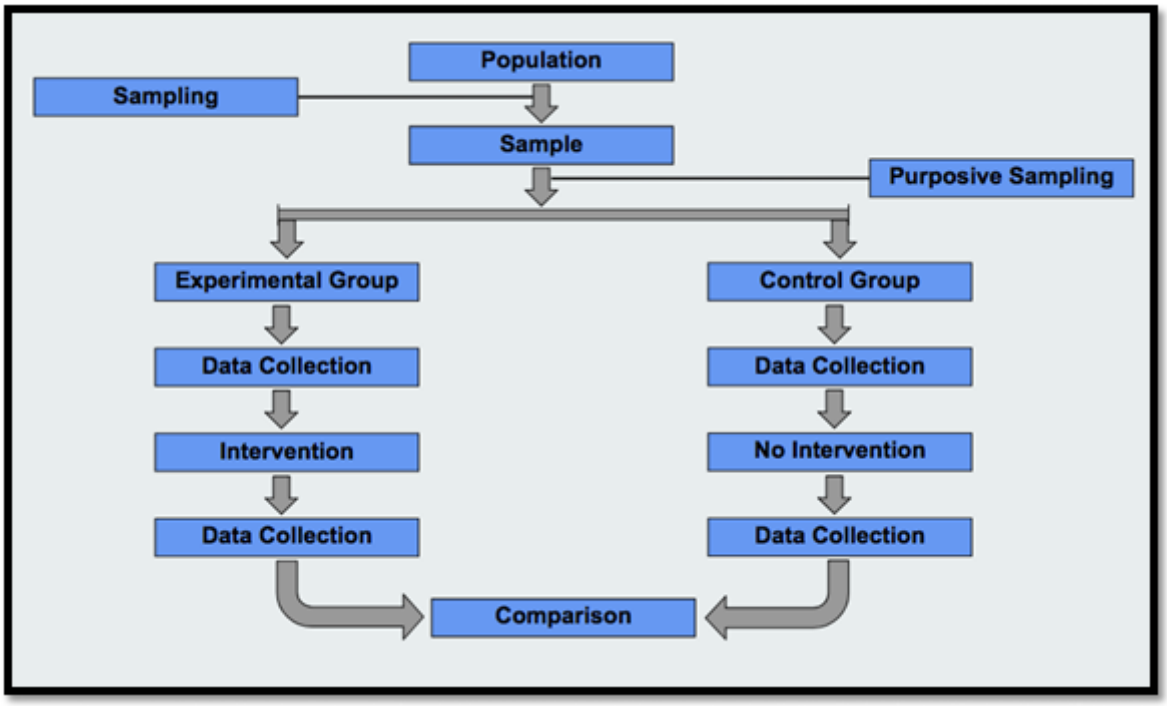


Figure 5: Graphical representation of the Quasi-Experimental design with the control groupused for this study

Sampling process

The study population included male and female UG students (100) who were from four academic majors: multimedia, journalism, computer science, and commerce. Before starting the screening test, students had to fill informed consent form & socio-demographic questionnaire. The allotted time was half an hour for the completion of the same. Out of the hundred students, 60 were selected for the quasi-experimental inquiry. A psycho-educational program was only given for the selected 30 samplings and they can be considered as an intervention group.

The intervention period was from August 2017 to October 2017. The remaining 30 students were not intervened and they were left free as a controlled group. Later the finale of the intercession a post-test is conducted on the experimental group as well as the control group to know the variation. The average variation between the pre-test and post-test was collected from each group. Later these average difference scores were contrasted to see whether the experimental group had a better change when compared to the control group.

Inclusion criteria

1. Students who belong to the age group 18-21yrs
2. Students who have submitted the informed consent sheet signed.
3. Students who were from four academic majors- Multimedia, Journalism, Computer Science, and Commerce.

Exclusion criteria

1. Students who are under psychiatric treatment.
2. Students who have not submitted the informed consent sheet signed.
3. Students who belong to the age group above 21yrs
4. Students who are enrolled in streams other than Multimedia, Journalism, Computer Science, and Commerce.

Pilot study

A pilot inquiry was carried out on a sample size of 30 undergraduate students in a college affiliated with Mahatma Gandhi University. The sample size of the study was chosen by using purposive sampling. The ensuing was the list of objectives of the pilot study:

1. To pre-test the research tools chosen for the study.
2. To ensure whether the tools effectively satisfy the conceptual framework and the methods adopted.
3. To establish the reliability of the tools and standardized questionnaire.
4. To ensure that the research method was followed systematically according to the plan.

As there were prior schedules with the students, they were provided an informed consent sheet, and socio-demographic questionnaire, and a DASS-21 test was administered. Students were able to grasp the questionnaire and clarified with the research investigator whenever required, so

the ultimate understanding was not misinterpreted nor misrepresented. The study took nearly 90 minutes to complete each session. The pilot inquiry lasted for about two months. The members of the study cooperated well as there was a keen interest among them to learn about psycho-education through the researcher.

Table 1: Descriptive statistical report on the Level of Depression, Anxiety, and Stress measured in theexperimental group before and after the intervention during the pilot study

	Pre- Intervention		Post- Intervention	
	Mean	**S.D.**	**Mean**	**S.D.**
Depression	1.93	.961	1.27	.294
Anxiety	3.27	1.44	1.60	.910
Stress	1.73	.799	1.00	.000

A follow-up was done after 2 months and all the tests were administered to an identical group of students to find out the reliability of the conducted tests. Table 1 shows that the mean level of depression, anxiety, and stress was less in the post-intervention phase when compared to pre-intervention. The participants were at ease and there was no difficulty mentioned by them in the tests conducted hence, there was no requirement tomake any modifications to the test content as well as in their administration. Therefore, thesame members were used for the main study as well.

Description of the Sample based on its Socio-Demographic Aspects and gender group of the sample.

Table 2: Distribution of participants concerning gender

Sl. No.	Gender	Frequency	Percentage
1	Female	41	68.3
2	Male	19	31.7
	Total	60	100.0

Table 2 shows the distribution of participants in the total sample based on Gender. Out of 60 participants, 41 students (68.3%) were females and 19 students(31.7%) were males.

Living situation of the sample

Table 3: Distribution of participants concerning the living situation

Sl. No.	Living situation	Frequency	Percentage
1	With parents	35	58.3
2	With friends	24	40.0
3	Others	1	1.7
	Total	60	100.0

Table 3 reveals that the majority of participants, i.e. 35 members (58.3%) live with their parents. 24 members (40.0%) live with friends and one member (1.7%) lives with relatives.

Level of education attained by participant's father

Table 4: Distribution of participants concerning the level of education attained by the participant's father

Sl. No.	Father's Highest Education	Frequency	Percentage
1	Upper Primary	4	6.7
2	High School	21	35.0
3	PUC, 12^{th} or equivalent	24	40.0
4	Graduate Degree	10	16.7
5	Post Graduate Degree	1	1.7
6	Total	60	100.0

Table 4 shows the distribution of members of the total sample based on the level of education attained by the participant's father. Fathers of 4 members (6.7%)have attained a level of upper primary, 21 members (35.0%) have attained High school,24 members (40.0%) attained a level of PUC, 12^{th} or equivalent, another 10 members(16.7%) attained a graduate degree and only one member has attained a level of a post-graduate degree.

Level of education attained by participant's mother

Table 5: Distribution of participants concerning the level of education attained by the participant's mother

Sl. No.	Mother's Highest Education	Frequency	Percentage
1	Upper Primary	2	3.3
2	High School	18	30.0
3	PUC, 12^{th} or equivalent	18	30.0
4	Graduate Degree	20	33.3
5	Post Graduate Degree	2	3.3
	Total	60	100

Table 5 shows the distribution of members of the total sample based on the level of education attained by the participant's mother. Mothers of 2 members (3.3%) have attained a level of upper primary, 18 members (30.0%) have attained High school, 18 members (30.0%) attained a level of PUC, 12^{th} or equivalent, another 20 members (33.3%) attained a graduate degree and only two members (3.3%) has attained a level of a post-graduate degree.

Employment status of participant's father

Table 6: Distribution of participants concerning the employment status of the participant's father

Sl. No.	Employment Status of Father	Frequency	Percentage
1	Employed for wages	9	15.0
2	Self- employed	30	50.0
3	Not working	1	1.7
4	Retired	2	3.3
5	Govt. employee	4	6.7
6	Others	14	23.3
	Total	60	100.0

Table 6 shows the distribution of members of the total sample based on the employment status of the participants' fathers. Based on the responses of participants, the majority of 30 members (50.0%) were self-employed. 9 members (15.0%) were employed for wages, 2 members (3.3%) were retired, 4 members (6.7%) were Government employees and one of them was not employed. 14 members (23.3%) were employed via other means.

Employment status of participant's mother

Table 7: Distribution of participants concerning the employment status of the participant's mother

Sl. No.	Employment Status of Mother	Frequency	Percentage
1	Employed for wages	3	5.0
2	Self- employed	3	5.0
3	Not working	10	16.7
4	A Homemaker	37	61.7
5	Unable to work	1	1.7
6	Govt. employee	5	8.3
	Others, specify	1	1.7

Table 7 shows the distribution of members of the total sample based on the employment status of the participant's mothers. Based on the responses of participants, the majority of 37 members (61.7%) were home-maker. 3 members (5.0%) were employed for wages, 3 members (5.0%) were self-employed, 10 members (16.7%) were not working, 5 members (8.3%) were Government employees and only one ofthem (1.7%) was unable to work.

Monthly income of the father

Table 8: Distribution of participants concerning the monthly income of the participant's father

Sl. No.	Monthly income of Father	Frequency	Percentage
1	Below Rs. 5,000	7	11.7
2	Rs. 5,000- Rs. 10,000	10	16.7
3	Rs. 10,000- Rs. 15,000	15	25.0
4	Rs. 15,000- Rs. 20,000	3	5.0
5	Rs. 20,000- Rs. 40,000	11	18.3
6	Rs. 40,000 and above	14	23.3
	Total	60	100.0

Table 8 shows the distribution of members of the total sample based on the monthly income of the participants' fathers. Based on the responses of participants, fathers of 7 members (11.7%) had monthly income less than Rs.5,000, 10 members(16.7%) had monthly income in the range of Rs. 5,000 to Rs.10,000, 15 members (25.0%) in the range of Rs.10,000- Rs.15,000, 3 members (5.0%) in the range of Rs.15,000 to Rs.20,000, 11 members (18.3%) in the range of Rs. 20,000 to Rs. 40,000 and 14 members had income more than Rs.40,000.

Monthly income of mother

Table 9: Distribution of participants concerning the monthly income of the participant's mother

Sl. No.	Monthly income of Mother	Frequency	Percentage
1	Below Rs. 5,000	44	73.3
2	Rs. 5,000- Rs. 10,000	10	16.7
3	Rs. 10,000- Rs. 15,000	2	3.3
4	Rs. 15,000- Rs. 20,000	1	1.7
5	Rs. 20,000- Rs. 40,000	3	5.0
	Total	60	100.0

Table 9 shows the distribution of members of the total sample based on the monthly income of the participant's mothers. Based on the responses of participants, the majority of mothers of 44 members (73.3%) had monthly income less than Rs.5,000,10 members (16.7%) had monthly income in the range of Rs. 5,000 to Rs.10,000, 2 members (3.3%) in the range of Rs.10,000- Rs.15,000, one member (1.7%) in the range of Rs.15,000 to Rs.20,000 and 3 members (5.0%) in the range of Rs. 20,000 to Rs. 40,000.

Type of family

Table 10: Distribution of participants concerning the type of family

Sl. No.	Type of Family	Frequency	Percentage
1	Nuclear	57	95.0
2	Joint	3	5.0
	Total	60	100.0

With regards to the type of family, the total sample has been divided into two groups Nuclear and Joint (see Table 10). The majority of the members, i.e. 57 (95%) belong to the nuclear family and 3 members (5%) belong to the joint family.

Participation in sports activities.

Table 11: Distribution of participants concerning participation in sports activities

Sl. No.	Participation in Sports Activities	Frequency	Percentage
1	One day a week	12	20.0
2	Two- three days a week	10	16.7
3	One day in two weeks	9	15.0
4	Never	29	48.3
	Total	60	100.0

Based on participation in sports activities by the sample members, the total sample has been divided into four groups (see Table 11). The majority of the members, 29 (48.3%) were never active in sports. 12 members (20.0%) in the sample participated in sports at least one day a week and 9 members (15.0%) for 2-3 daysa week.

Stressors

Table 12: Distribution of participants concerning stressors

Sl. No.	Stressors	Frequency	Percentage
1	Fear of failing in examinations/ test	23	38.3
2	Unable to keep up with the workload	18	30.0
3	Too much work with the workload	6	10.0
4	Criticism of work performed	10	16.7
5	Financial responsibilities	3	5.0
	Total	60	100.0

The stressors experienced by the sample members were classified in Table 12. As per the frequency calculated, 23 participants had fear of failure in examinations/tests. 18 members

(30.0%) were unable to keep up with the workload, 6 members (10%) had too much work with the workload, 10 members (16.7%) faced criticism on work performed and 3 members (5.0%) faced financial responsibilities.

Independent variable of the study

Socio-demographic characteristics form the independent variables of the study.

Dependent variable of the study

The dependent variables of the study are Depression, Anxiety, and Stress.

Tools

The present research used the following tools for various purposes related to its implementation:

1. Informed Consent sheet
2. Socio-demographic questionnaire (Research scholar)
3. Depression, Anxiety & Stress Scale- DASS 21 (Lovibond et.al., 1995)

1. Informed Consent sheet

Informed consent is a voluntary agreement to participate in a research or interview. It is not just a form but a process, in which the participant gets an understanding of what is the purpose of the study and its possible risks and benefits, the procedure they are required to do, the duration of the interview/ study, steps for confidentiality, whom to contact in case if the participant has any queries/complaint.

Informed consent for undergoing the intervention was obtained from the concerned participants. Further, it was ensured that the responses of participants would be kept confidential and that involvement in the study would be voluntary. To maintain confidentiality, code numbers are used, instead of the name of the participant.

2. Socio-demographic questionnaire.

For the current study, the first measure was the socio-demographic questionnaire, which consisted of questions about the Participants' gender, Living situation, the highest level of education (school/college/university) completed by parents, Employment status of parents, Monthly income of parents, Type of family, Number of siblings, Participation in sports activities or co-curricular activities and stressors.

3. Depression, Anxiety & Stress Scale- DASS 21.

The second questionnaire was DASS-21, which is used to weigh the level of depression, anxiety, and stress and is often used in non-clinical research to measure the level of mental health factors in young adults. The questionnaire was planned by Syd Lovibond and Peter Lovibond at the University of New South Wales in 1995.

The Depression Scale in DASS assesses hopelessness, dysphoria, self-depreciation, lack of interest, devaluation of life, anhedonia, and inertia. The Anxiety Scale assesses situational

anxiety, autonomic arousal, skeletal muscle effects, and subjective experience of anxious affect. The Stress Scale in DASS assesses nervous arousal, difficulty in relaxing and being easily upset/ agitated, impatient, and irritable/over-reactive.

DASS-21 scale is a 4-point Likert-type measure of the three main mental health issues namely - Depression, Anxiety, and Stress. Responses on each item in the DASS-21 questionnaire, range from zero (did not apply to me at all) to three (applied to me very much). The severity level of the three dimensions of mental health conditions is determined by the total scores of seven-item subscale responses.

Reliability and validity

The alpha reliability coefficients for DASS-21 have been reported as 0.94 for DASS-D (Depression), 0.87 for DASS-A (Anxiety), and 4.91 for DASS-S (Stress). Internal consistency for each of the subscales of the 42-item and the 21- item versions of the questionnaire are typically high (e.g. Cronbach's an of 0.96 to 0.97 for DASS- Depression, 0.84 to 0.92 for DASS- Anxiety, and 0.90 to 0.95 for DASS-Stress).

Scoring of the scale

The Depression, Anxiety, and Stress Scale – 21 i.e. (DASS-21) is a set of three self-report scales designed to measure the emotional states of individuals withdepression, anxiety, and stress. The scoring of the scale was done in the following format. The response to each statement was marked in four different categories: 0, 1, 2, and 3 (see Table 13). 0 stands for 'Did not apply to me at all Never', 1 stands for 'Applied to me to some degree or for some of the time- Sometimes', 2 stands for 'Applied to me to a considerable degree or for a good part of the time- Often' and 3 stands for 'Applied to me very much or most of the time- Almost always. A score on the DASS- 21 will need to be multiplied by two to calculate the final score. Table 14 shows how the severity level for each subscale – Depression, Anxiety, and Stress will be marked for each participant based on their final score.

Table 13: Subscale Measures and the Response Score Categories

Subscales measure:	**The response score categories are:**
Depression Stress Anxiety	0 = Did not apply to me at all- Never 1= Applied to me to some degree or for some of the time.-Sometimes 2= Applied to me to a considerable degree or for a good part of time.- 3= Applied to me very much or most of the time.-Almost always

Questions from DASS-21 numbered 3, 5, 10, 13, 16, 17, and 21 falls into the category of Depression; those numbered 2, 4, 7, 9, 15, 19, and 20 are in the category of Anxiety and those numbered 1, 6, 8, 11, 12, 14, and 18 belong to the category of stress.

Table 14: The severity of depression, anxiety, and stress scores on DASS-21

Rating	Depression score	Anxiety score	Stress score
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Outline for Psychoeducation intervention

A Psychoeducational model is a humanistic approach to positively changing the behavior patterns, values, interpretation of events, and life outlook of individuals who are not adjusting well to their environs (e.g. home, school, work place). Inappropriate behavior is viewed as a person's maladaptive attempt to copewith the demands of that environment.

Appropriate behaviors are developed by helping the individual to recognize the need for change, and then helping that person to display better behavior choices (McIntyre, 2017). Psycho-educators are concerned with the individual's mind, perceptions of reality, and feelings. Psychoeducational practices and procedures consider the emotional and psychological influences affecting the individual and subsequent outcomes. When engaging in the process of behavioral change, the professional must consider the psychological state and emotional issues of the student or client, and actively involve that person in the development of better actions. The Concept mapping of the psycho-educational training program is shown in figure 6.

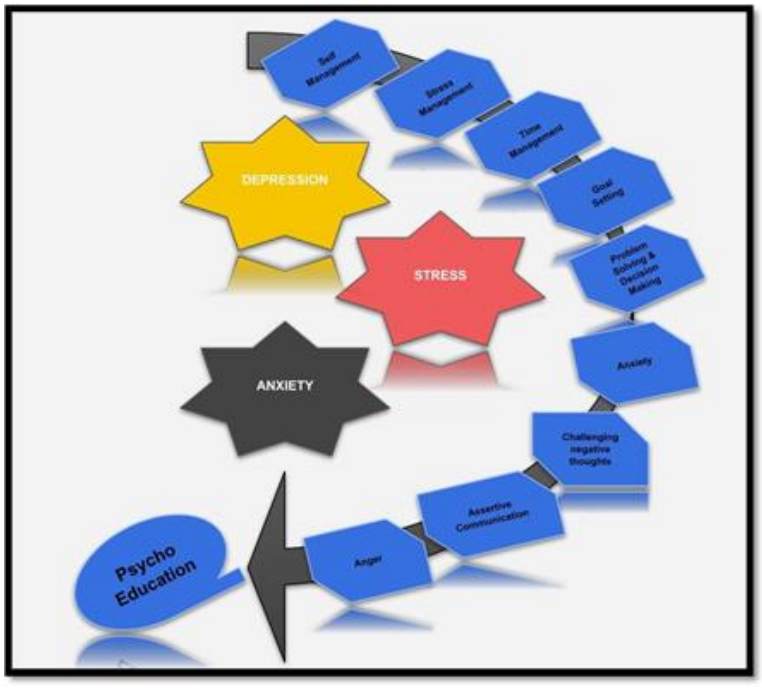


Figure 6: Concept Mapping of Psycho-education

Researcher with the support of experts in this field, a psycho-educational program was developed. Sessions were given to the intervention group of students in eight sessions, with 2hours allotted for each. The implementation of the psycho-educational program was covered within three- a month's duration i.e. from the beginning of August 2017 to the end of October 2017. The sessions in the program conducted are

1. Stress management

Stress administration includes tending to a person's sentiment of failure to deal with the ordinary requests of life. At first, it includes recognizing the unpleasant circumstance or occasion and building up whether it very well may be changed or must be lived with. Psychoeducational intercessions are aiming for creating to expand adapting abilities for managing the physical and enthusiastic indications of strain.

2. Time management

Fitting time administration includes having the capacity to organize, plan, and execute errands in a doable way. It might be needed to address the point of individual or expert life. The three procedures recognized, organizing, planning, and executing, make up the means to achieving great time administration propensities.

3. Anger management

Outrage administration methods intend to assist the students with bettering'overseeing' or controlling their displeasure, as opposed to wiping out their annoyance. The objective of procedures is to encourage the aptitude to keep a resentment reaction happening when it isn't suitable. Commonly, this accentuates critical thinking and stresses immunization.

4. Communication training

The point of communication skills training is to encourage people how to deal with their considerations and value ably and effectively. Some of the time it might be important to make a basic demand, for example, requesting some help or for somebody to change his or her conduct somehow or, individuals might need to discuss critical and convoluted issues without causing significantcontentions and a threatening vibe.

5. Negative thoughts

It is important to challenge negative, irrational thoughts or beliefs and help to develop alternate ways of interpreting events. A negative personality trait generates negative beliefs, thoughts, emotions/ feelings leading to negative activities and ruining the physical and mental health, social relationships, peace,profession, living, and life as it's seen.

6. Anxiety

Psychological problems such as anxiety and depression are associated with personal suffering, declining quality of life, and high economic costs. Very few people receive psychological treatment despite the availability of effective treatments. The reasons could be high costs associated with treatment, inability to identify the psychological symptoms, length of

waiting lists, and many more. The high prevalence of these disorders rises the necessity for a brief, inexpensive and effective intervention. In this intervention, the participants will increase their knowledge of what constitutes anxiety.

7. Problem-Solving

Critical thinking is aiming for presenting new or more organized approaches to determine issues. A few stages that are essential while handling an issue are instructed to students. In any case, a great portrayal of the issue must be created. And after those conceivable choices for managing, it should becreated. The thought is to consider however many alternatives as could be expected under the circumstances and after that to choose practical decisions from this rundown. The chosen alternatives could then be positioned as far as the level of practicality, or it might be that a couple of thoughts that could be utilized to take care of the issue may emerge over the others and might be joined.

The last choice(s) ought to be examined concerning the most ideal result. The last arrangement picked ought to be refined and a check made to perceive what assets would be required with the goal that the student is enough arranged. The thought is executed and after that assessed. Not all thoughts will function admirably the first run through so diligence might be required. On theother hand, if not fruitful, the student might need to draw on one of the substitute arrangements.

8. Self-management skills

The benefits gained from psychoeducation are boundless. Every human being will feel more relaxed and have control over their present situation if they have a better level of understanding. Participants who actively participate in self-management and relapse prevention are more likely to have positive social and self-esteem changes. Self-management can be used to lead a more effective and efficient daily life.

9. Goal setting

Another advantage of psychoeducation is that it helps members in understanding the hugeness of objectives and to know how to set them, know the reasons why individuals can't accomplish the objectives, and utilize SWOT methods to successfully introspect and set objectives.

Venue of the Study

The present investigation was carried out in an undergraduate college affiliated with Mahatma Gandhi University.

Intervention process

After receiving permission from the Principal of the College, the investigator was granted the participants for the study and allotted a separate classroom for the intervention, and entrusted his staff to facilitate the investigator in the intervention process. 100 students who belong to the

academic majors multimedia, journalism, computer science and commerce. They were then asked to fill out the socio-demographic questionnaire and the responses were recorded.

Out of these data, 60 records were filtered by considering the exclusion criteria. 60 students were then randomly distributed to an experimental and control group. The experimental group was subjected the psycho-educational intervention. The intervention was scheduled without affecting the routine work of the subjects. The research investigator was allotted a separate classroom for conducting the intervention without any interference. The entire educational sessions, training, and counseling were conducted by the research investigator. The complete intervention comprises 9 modules each session consumes 2 hours.

The sessions involved in the training program are summarized in table 15 as shown below:

Table 15: Details of the training programs conducted

Sl. No	Training Program Module	Training Objective	Focused area	Methods of instruction	Duration	Total duration
1	Stress Management	To identify your personal difficulties, reflect on stress management and relaxation.	What Is Stress? causes of stress, adolescence and stress ,stress related illness , stress common problems, factors affecting stress ,stress management techniques – benefits of exercise, diet, ventilation, time management, positive thinking, re-framing. Stress feelings, types of stress, types of stressors, academic stress & daily stress, symptoms of stress, stress control- ABC strategy.	Individual activity:- List the ways you experience stress physically, emotionally, and behaviorally. lecture method, group discussion, power point presentation, videos, individual activity:- personal questionnaire related to identify stressors, largest sources of stress , symptoms of stress	20 min for activity 1 hr for class 10 min break 10min instruction 30 min for role play	2 hrs
2	Time Management	Time and energy management can make you more productive and reduce your stress level.	Myth About Time Management, Truth About Time Management, Steps To Manage Your Time, Organizing Your Time , How To Over Come Procrastination, Tackle Time Wasters, Time Management Tips- tips for effectively managing your time	lecture method, power point presentation, individual activity:- set goals and prioritize	15 min activity 1hr 40 min class 10 min break 5 min instruction	2 hrs
3	Anger	practice anger management skills to be able to become more constructive throughout daily routines	What Is Anger? What Causes Anger? How Does The Body React To Anger? How Does Anger Effect Relationships? Importance Of Anger Management, How To Deal With Anger Feelings Effectively, Tips To Prevent/Control Anger	individual activity:- anger self realization and consequences. individual activity:- anger management work sheet. group activity:- anger discussion questions individual activity:- anger warning signs	40 min activity, 1 hr 15 min class 10 min break 5 min instruction	2 hrs

4	Assertive Communication	Build confidence, communicate better and achieve goals.	What Is Assertiveness? Communication Styles, Assertive Communication, Aims Of Assertiveness, Techniques For Being Assertive, Developing Positive Assertiveness, Assertive skills. Challenge unhealthy cognitions. Irrational thinking.	lecture method and power point presentation. individual activity:- identify the communication styles individual activity:- assertive response	30 min activity 1hr class 10 break 10 min instruction 20 min for brain storming	2hrs
5	Challenging Negative Thoughts	A good way to test the accuracy of your perceptions might be to ask yourself some challenging questions.	What To Do With Negative Thoughts- Detect-Identify-Challenge-Replace identify cognitive distortions replace negative thoughts with positive ones. when to use thought replacement techniques	lecture method. power point presentation. individual activity:- event, thought ,consequence, alternative response, brain storming	20 min for activity 45 min for class 10 min break 20 min brain storming 35 min for role play	2 hrs
6	Anxiety	participants will increase their knowledge of what constitutes anxiety.	What Is Anxiety? Types Of Anxiety Symptoms Of Anxiety How Does Anxiety Grow?	Individual activity:- challenging anxious thoughts, countering anxiety… power point presentation, lecture, group discussion, brain storming	20 min activity 1hr class 10 min break 20 min brain storming 20 min role play	2hrs
7	Problem Solving & decision making	identification of the true problem.	What Is Problem Solving Skill , Problem Solving Requirements Understanding ,The Process Problem Solving Procedure, decision making process, decision making skills	individual activity:- problem statement worksheet. lecture method, group discussion	1 hr for class and activity- define a problem in your life? why it is a problem for you? who can solve this for you ?	1hr
8	Self Management skills	self management can be used to live a more effective and efficient daily life.	Positive Thinking, Stress Management, Time Management, Communication Skills	individual activity ;- stress management techniques	90 min for class and activity. 10 min break	1 hr
9	Goal Setting	To understand the importance of goals and to know how to set them. To know the reasons why people are unable to achieve the goals. Use SWOT techniques to effectively introspect and set goals.	What Is A Goal? Why Don't Most People Set Goals, Importance Of Goal Settings, Why Goals Fail Guidelines For Setting Goals, Types Of Goals, Time To Set Your Goal, Goal Setting Strategies.	Individual Activity :- imagine yourself from 10 years from now. Write down all you can. individual activity:- short term goals, medium term goals, short term goals. power point presentation. group discussion	30 min for activity 1 hr class 10 break 30 min role play	2hrs

Data collection procedure

The scores obtained from the sample using the DASS-21 scale were taken as pre-test scores for both the experimental group and the control group. On completion of the intervention, a post-test was administered after two months using the same DASS-21 scale on the experimental and control group. The data collected from both pre-test and post-test were compared for analysis purposes.

Statistical techniques for data analysis

In the current research, the following statistical measures were used for the analysis of the data to arrive at consistent results:

1. A measure of descriptive statistics such as Mean, Standard Deviation, Frequency, and Percentage.
2. The measure of Inferential statistics and probability such as Independent t-test and Pairedt-test, Chi-square
3. The measure of effect size

1. The measure of descriptive statistics such as mean, standard deviation, frequency, and percentage

Descriptive statistics summarize the data. It helps the reader to understand the data by making use of indicative or typical values. Based on the type of data, the descriptive statistics to be measured can be - the measure of central tendencies such as Mean, median, and mode and a measure of spread such as standard deviation, variance, and range (Kemp *et al.*, 2012).

2. The measure of inferential statistics and probability such as independent t-test and paired t-test, chi-square

Explanation on "inferential statistics tests allows us to decide which of the two explanations is the most likely: is it more likely that our sample was unrepresentative or is there a difference between the two groups?" (Brace 2012, p.9) Due to this reason, all inferential statistical tests will compute the p-value(probability value) ranging from 0 to 1.

The purpose of a t-test in research studies is to determine whether two means are significantly different from one another. The independent t-test is used when means from two independent groups of individuals are compared. The paired test isused when means of two sets of observations from the same set of individuals are compared.

The summary descriptive is suitable for nominal or categorical that are counts, percentages, or frequencies. It is meaningless if the mean value of the participant's gender is calculated. For nominal variables, a chi-square test can be conducted to determine the association or difference between independent groups.

3. The measure of effect size

If the research undertaken is to determine the effectiveness of a new form of treatment for psychological issues, say depression, then the researcher not only wants to know whether the new form of treatment is more effective when comparedwith existing treatment but also how much more effective. Effect size shows theeffect we can expect from an intervention, treatment, or manipulation of an independent variable or difference between groups (Brace et al, 2012). Suggestions on how effect sizes (Cohen, 1969) should be classified. An effect size of 0.2 is considered "small", 0.5 as "medium effect" and 0.8 as "large".

Tools used for statistical analysis

The statistical analyses were carried out using the globally accepted statistical software IBM SPSS Statistics 22.0. Microsoft Word and Excel were used for the generation of tables and graphs. SPSS is widely used in the statistical analysis of data, especially the data that has been collected during the research. It is widely used by researchers, especially those who belong to academic majors in Psychology and social science.

To determine how people react to a specific situation, the researchermay have to conduct several tests on different individuals in different situations andthen make use of statistical methods on the data collected to determine the trends. In this case, statistical tools have to be used in research. A variety of methods can be usedfor collecting data for psychological research such as questionnaires, interviews,observations, and experiments. These methods help in collecting quantitative datawhich can be used in SPSS for analysis (Brace *et al.*, 2012).

RESULT AND DISCUSSION

This chapter deals with the analysis of the data obtained from participants before and after the intervention to draw meaningful inferences about the effect of psychoeducation intervention. The analysis has deployed descriptive statistics and inferential statistics on the data collected. Calculating mean, standard deviation, frequency, and percentage of the data obtained from the sample were calculated to understand the data well, which would be helpful when performing t-tests and correlations.

The study was conducted on a sample of 60 undergraduate students of Mahatma Gandhi University to test the hypotheses. As stated earlier, the sample for the study was chosen using the purposive- sampling method. Out of 100 students, the tests were administered to 60 students on considering the inclusion and exclusion criteria for the current research. The students were randomly assigned to the experimental and control group equally. Psycho-educational program modules were planned for the experimental group. Post-test was conducted on both the experimental and control group two months after the conduction of the intervention. IBM SPSS (version 22) is used for the data analysis.

Analysis concerning the variable – Depression

The mean (a measure of central tendency) and standard deviation (a measure of dispersion) scored by the experimental group on depression, both before and after the intervention were calculated as shown in the table.

Table 16: Descriptive statistical report on the Level of Depression measured in the experimental group before and after the intervention

Level of Depression	N	Mean	S.D.
Pre- Intervention	30	2.03	0.999
Post- Intervention	30	1.40	0.724

The above statistical report lists the descriptive statistics which include mean and standard deviation. From table 16 it is clear that the average level of depression is 2.03 with an S.D of 0.999 before intervention and 1.40 with an S.D of 0.724 after intervention showing that intervention made a positive effect on the individual.

Table 17a: Frequency report on the Level of Depression measured in the experimental group beforethe intervention

Pre- Intervention Phase		
Level of Depression	**Frequency**	**Percentage**
Normal (0-9)	12	40
Mild (10-13)	7	23.3
Moderate (14-20)	9	30.0
Severe (21-27)	2	6.7

Table 17b: Frequency report on the Level of Depression measured in the experimental group afterthe intervention

Post- Intervention Phase		
Level of Depression	**Frequency**	**Percentage**
Normal (0-9)	22	73.3
Mild (10-13)	4	13.3
Moderate (14-20)	4	13.3
Severe (21-27)	0	0

Tables 17a and 17b show the number of students under each level of depression, before and after the intervention. It is indicative that among the student members, the intervention helped in bringing them to normalcy as more than70% are seen to be in the Normal group. The rest of the students were only in the groups where mild and moderate disturbances existed. None of them were seen to be havingsevere levels of depression.

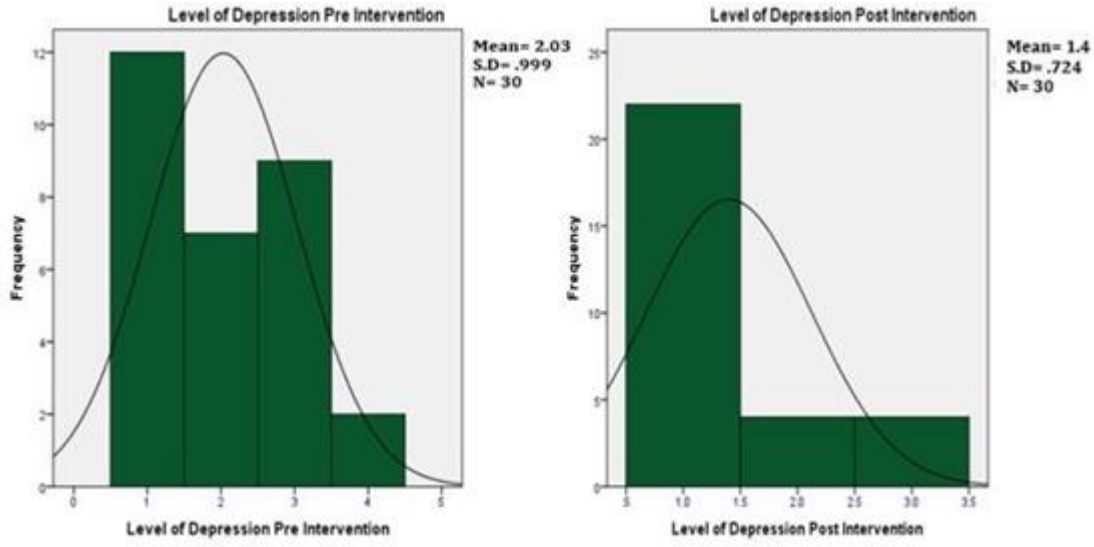


Figure 7: Histograms representing the Level of Depression measured in the experimental group before and after the intervention

It is understood from the histograms (see figure 7) that the level of depressionwas less post-intervention when compared with the pre-intervention phase. During the psycho-education program, the participants in the experimental group learn about what affects their depression, the factors triggering it, the factors making it worse, and the ways that might help them. This, in turn, helps them in avoiding relapse i.e. it avoids the chances of getting depressed again and aids students in managing their psychological health issues. It can be concluded from the above histograms that students who received the psycho-educational intervention had lower levels of depression after the conduction of the intervention.

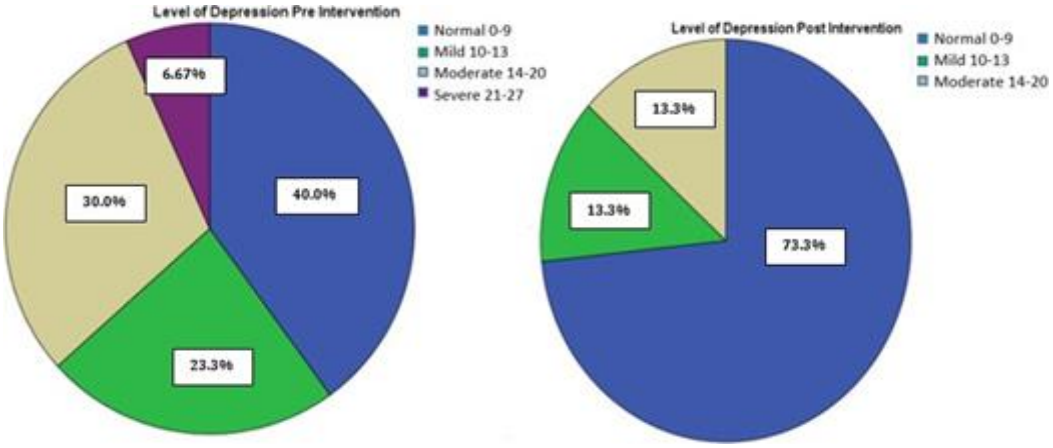


Figure 8 a and b: Pie chart representing the Level of Depression measured in the experimental group before and after the intervention

The pie chart (see Figure 8 a and b) shows the level of depression before and after conducting the intervention with the experimental group. The pie chart representing the level of depression in the pre-intervention stage shows that the level of depression was normal for 40%, mild for 23.33%, moderate for 30%, and severe for 6.67%. The second pie chart clearly shows that after the intervention, almost 73.33%were normal, 13.33% were having mild depression, and 13.33% had a moderate level of depression.

Analysis concerning the variable –Anxiety

The mean (a measure of central tendency) and standard deviation (a measure of dispersion) scored by the experimental group on anxiety, both before and after the intervention were calculated as shown in the table.

Table 18: Descriptive statistical report on the Level of Anxiety measured in the experimental group before and after the intervention

Level of Anxiety	N	Mean	S.D.
Pre- Intervention	30	3.10	1.242
Post- Intervention	30	1.57	0.858

The above statistical report lists the descriptive statistics which include mean and standard deviation. From table 18, we can see that the mean level of anxiety is 3.10 before intervention and 1.57 after the intervention phase which is indicative that the intervention helps students with anxiety to overcome it.

Table 19a: Frequency report on the Level of Anxiety measured in the experimental group before the intervention

Pre- Intervention Phase		
Level of Anxiety	**Frequency**	**Percentage**
Normal (0-7)	4	13.3
Mild (8-9)	3	10
Moderate (10-14)	15	30
Severe (15-19)	2	6.7
Extremely Severe (20+)	6	20

Table 19b: Frequency report on the Level of Anxiety measured in the experimental group after theintervention

Post- Intervention Phase		
Level of Anxiety	**Frequency**	**Percentage**
Normal (0-7)	20	66.7
Mild (8-9)	3	10
Moderate (10-14)	7	23.3
Severe (15-19)	0	0
Extremely Severe (20+)	0	0

Tables 19a and 19b show the number of students under each level of anxiety, before and after the intervention. It is however understood from the above that before the initiation of the intervention, anxiety levels are in moderation for half the student sample populace while about 20% were in the extremely severe case. Less than 15 % were seen to be normal and about 6.7% were in the severe case. About 10% of them were seen to have mild levels of anxiety. Interestingly, there is a positive change seen in the post-intervention phase with more than 65% of the student sample populace being normal and less than 25% having moderate anxiety levels. There were none of the students had severe or extremely severe levels of anxiety.

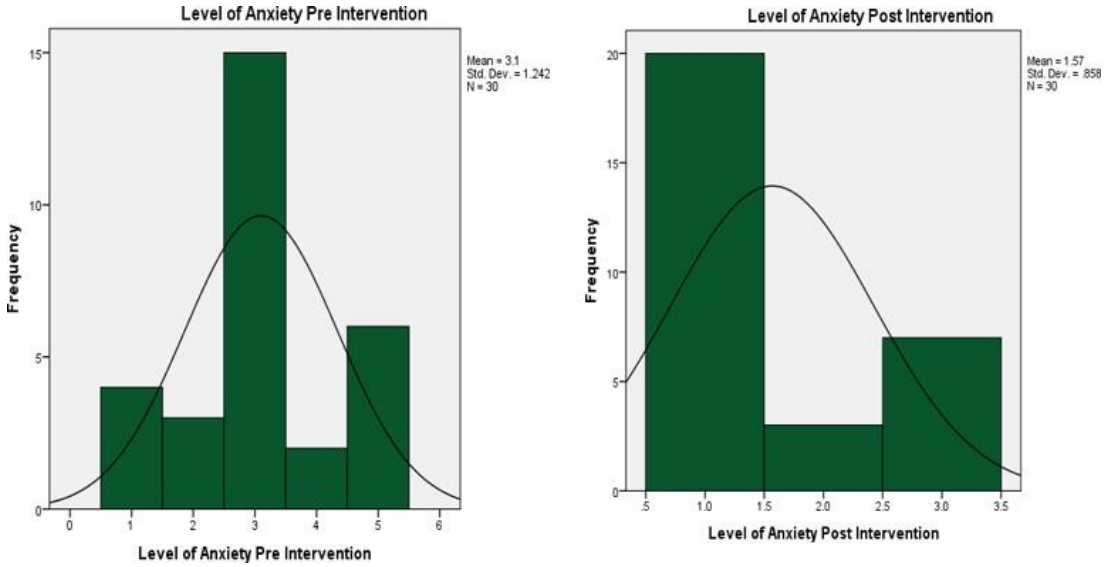


Figure 9: Histograms representing the Level of Anxiety measured in the experimental group before and after the intervention

It is understood from the histograms (see figure 9) that the level of anxiety was less post-intervention when compared with the pre-intervention phase. The psycho-education intervention protocols also included educational components for the participants in the experimental group to learn about anxiety symptom control skills, factors affecting anxiety, and methods to overcome the same. It can be concluded from the above histograms that students who received the psycho-educational intervention had lower levels of anxiety after the conduction of the intervention.

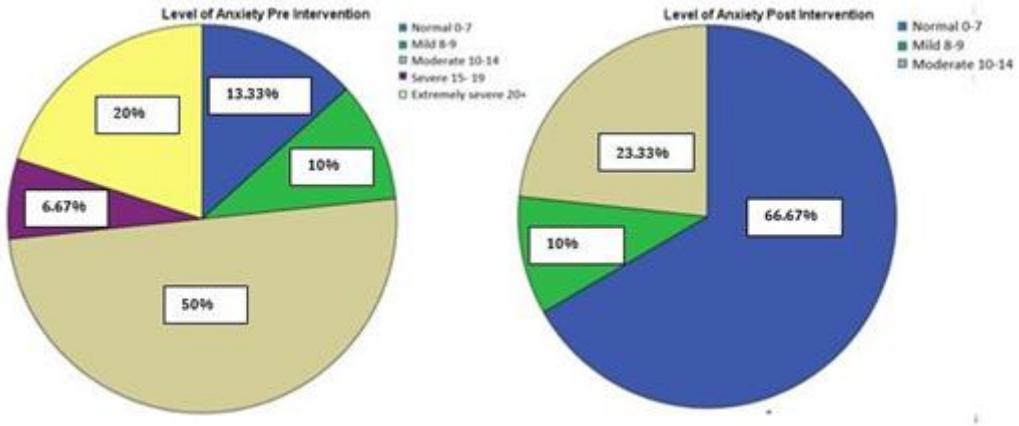


Figure 10. a and b: Pie chart representing the Level of Anxiety measured in the experimental group before and after the intervention

The pie charts (see Figure 10 a and b) show the level of anxiety before and after conducting the intervention with the experimental group. The pie chart representing the level of anxiety in the pre-intervention stage shows that out of 100%of the population, the level of anxiety was normal for 13.33%, mild for 10%, moderatefor 50%, severe for 6.67% and extremely severe

for 20%. The second pie chart clearly shows that after the intervention, almost 66.67% were normal, 10% were havingmild anxiety, and 23.33% having a moderate level of anxiety.

Analysis concerning the variable –Stress

The mean (a measure of central tendency) and standard deviation (a measure of dispersion) scored by the experimental group on stress, both before and after the intervention were calculated as shown in the table.

Table 20: Descriptive statistical report on the Level of Stress measured in the experimental group before and after the intervention

Level of Stress	N	Mean	S.D.
Pre- Intervention	30	1.73	0.828
Post- Intervention	30	1.07	0.254

The above statistical report lists the descriptive statistics which include mean and standard deviation. From table 20, we can see that the mean level of stress is 1.73 in the pre-intervention phase and 1.07 in the post-intervention phase which indicatesthe positive changes that occurred after the intervention.

Table 21a: Frequency report on the Level of Stress measured in the experimental group before theintervention

Pre- Intervention Phase		
Level of Stress	**Frequency**	**Percentage**
Normal (0-14)	15	50
Mild (15-18)	8	26.7
Moderate (19-25)	7	23.3

Table 21b: Frequency report on the Level of Stress measured in the experimental group after theintervention

Post- Intervention Phase		
Level of Stress	**Frequency**	**Percentage**
Normal (0-14)	28	93.3
Mild (15-18)	2	6.7
Moderate (19-25)	0	0

Tables 21a and 21b show the number of students under each level of stress, before and after the intervention. As seen above, only half the number of students were seen to be in the Normal group before the intervention while the post-intervention phase showed more than 90%

of the students in the group. None of the students showed even moderate levels of stress after the intervention.

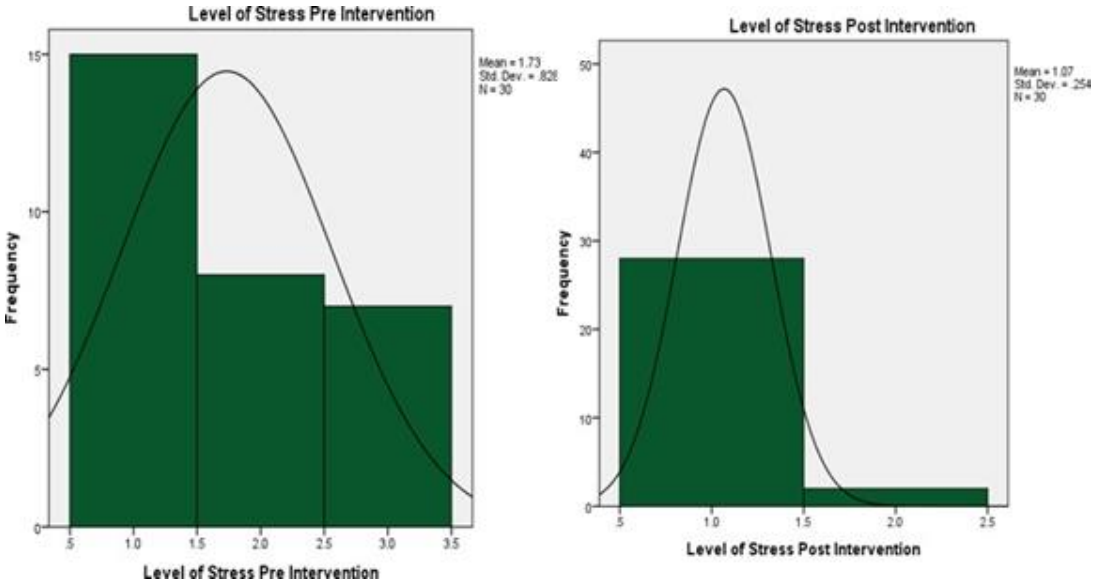


Figure 11: Histograms representing the Level of Stress measured in the experimentalgroup before and after the intervention

It is understood from the histograms (see figure 11) that the level of stress was less post-intervention when compared with the pre-intervention phase. The psycho-education intervention also included sessions for the participants in to understand the factors affecting stress and various ways to overcome that. It can be concluded from the above histograms that students who received the psycho-educational intervention had lower levels of stress after the conduction of the intervention. The above pie charts show the level of stress before and after conducting the intervention with the experimental group. The pie chart representing the level of stress in the pre-intervention stage shows that the level of stress was normal for 50%, mild for 26.67%, and moderate for 23.33%.

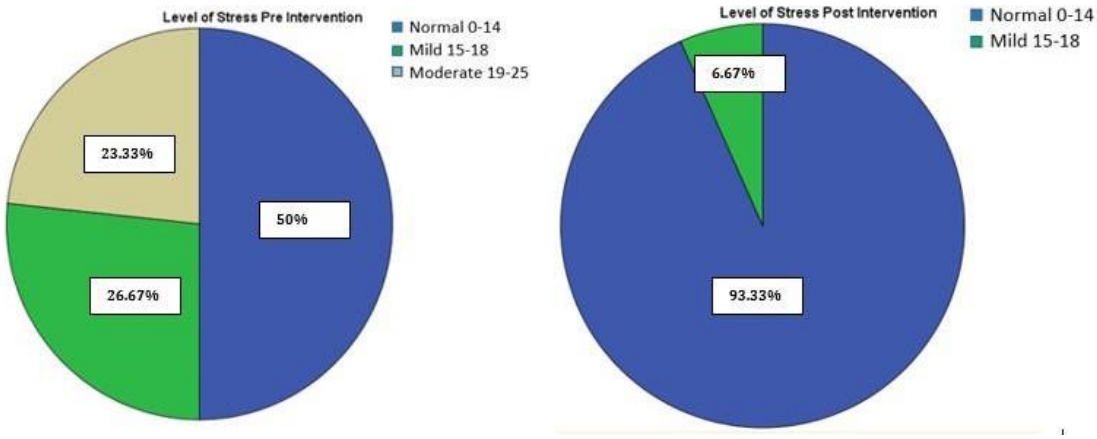


Figure 12. a and b: Pie chart representing the Level of Stress measured in theexperimental group before and after the intervention

The pie charts (see Figure 12 a and b) show the level of stress before and after conducting the intervention with the experimental group. The pie chart representing the level of stress in the pre-intervention stage shows that out of 100% of the population, the level of stress was normal for 50.0%, mild for 26.7%, and moderate for 23.3%. The second pie chart clearly shows that after the intervention, almost 93.33% were normal and just 6.67% were having a mild level of stress.

Comparison between pre-Intervention and post-Intervention of the experimental group on various study variables

Table 21 shows the mean scores and Standard deviations of the experimental group, obtained in both pre-intervention and post-intervention tests on the three components- Depression, Anxiety, and Stress.

Table 22: Paired samples statistics report on the Level of Depression, Anxiety, and Stress measured in the experimental group before and after the intervention

		Pre- Intervention		**Post- Intervention**				
	N	**Mean**	**S.D.**	**Mean**	**S.D.**	**t**	**df**	***P***
Level of Depression	30	2.03	0.999	1.40	0.724	4.829	29	.000
Level of Anxiety	30	3.10	1.242	1.57	0.858	10.251	29	.000
Level of Stress	30	1.73	0.828	1.07	0.254	4.817	29	.000

The statistical analysis performed using SPSS (see Table 22) clearly shows that there was a significant difference in the level of depression for the experimental group before the intervention (M= 2.03, SD= 0.999) and after the intervention (M=1.40, SD= 0.724); t (29) = 4.83, p = .000. The results shows that there is a significant decrease in the level of depression after the intervention (M= 1.40, SD= 0.724) when compared to the level of depression before the intervention (M= 2.03, SD= 0.999).

The statistical analysis shows that there was a significant difference in the level of anxiety for the experimental group before the intervention (M= 3.10, SD= 1.24) and after the intervention (M= 1.57, SD= 0.858); t (29) = 10.25, p = .000. The results shows that there is a significant decrease in the level of anxiety after the intervention (M= 1.57, SD= 0.858) when compared to the level of anxiety before the intervention (M= 3.10, SD= 1.24).

The statistical analysis also shows that there was a significant difference in the level of stress for the experimental group before the intervention (M= 1.73, SD= 0.83) and after the intervention (M= 1.07, SD= 0.25); t (29) = 4.82, p = .000. The results reveals that there is a significant decrease in the level of stress after the intervention (M= 1.07, SD= 0.25) when compared to the level of stress before the intervention (M= 1.73, SD= 0.83). Note that the p-

value can never equal zero. SPSS rounds to 3 decimal places, so p must be less than 0.0005 or it would appear as 0.001 (Brace *et al.,* 2012). Since p<0.0005, hypothesis H1 has been accepted (Null hypothesis H0 is rejected). In other words, there is a significant difference between stress, anxiety, and depression among students before and after the intervention.

The paired sample statistics show the mean and standard deviation values. The mean SD for a level of depression is (0.999+0.724)/2= 0.865. Therefore the effect size, d= (2.03-1.40)/0.865= 0.73. This could be considered a large effect size. The mean SD for the level of anxiety is (1.242+0.858)/2= 1.05. Therefore the effect size, d=(3.10-1.57)/1.05=2.03. This could be considered a large effect size. The mean SD for the level of stress is (0.828+0.254)/2= 0.541. Therefore the effect size, d= (1.73- 1.07)/0.541= 0.90. This could be considered a large effect size.

Level of depression, anxiety, and stress for those who attended the psycho-education intervention and those who did not attend the intervention. Independent-sample t-tests were conducted to compare the level of depression, stress, and anxiety for the experimental and control group in the post-intervention stage.

Psychoeducational programs were particularly effective in a reduction in depression levels by reducing unproductive ways of coping in young adolescents (Claire *et al.,* 2005). The increasing rate of suicides during examinations or results clearly shows the lack of coping skills students have. (Manjula,2006) reported that a stress management program conducted in a pre-university college showed significant improvement was observed in the overall coping and study time management for the experimental group when compared with the control group after the intervention. The results of this study were found to be consistent with similar studies (Johansson 1991, Kang *et al.,* 2009, Muriungi 2013).

Comparison between the Experimental group and control group on various study variables in the post-intervention phase

Table 23: Independent t-test statistics report on the Level of Depression, Anxiety, and Stress measured in the experimental group and Control group after the intervention

		Experimental Group		**Control Group**				
	N	**Mean**	**S.D.**	**Mean**	**S.D.**	**t**	**df**	***P***
Level of Depression	1.40	0.724	2.60	0.770	-6.218	58	.000	1.40
Level of Anxiety	1.57	0.858	3.33	0.922	-7.680	58	.000	1.57
Level of Stress	1.07	0.254	1.97	0.890	-5.327	58	.000	1.07

Table 23 clearly explains the level of depression, anxiety, and stress for both experimental and control groups after the intervention. Notable changes are seen in the experimental group in comparison to the control group which is indicative of the positive aspects of the intervention done by the researcher. The level of change is more significant among those in depression.

The SPSS analysis report in table 23 clearly shows that there is a significant difference in the level of depression for the experimental group (M=1.40, SD= 0.72) and control group (M= 2.60, SD= 0.770) in the post-intervention stage; t(58) = -6.218, p=.000. The result shows that there is a significant difference in the level of anxiety for the experimental group (M=1.57, SD=0.86) and control group (M=3.33, SD=0.92) in the post-intervention stage; t (58) =-7.68, p=.000.

Similarly, there is a significant difference in the level of stress for the experimental group (M=1.07, SD= 0.25) and control group (M= 1.97, SD= 0.89) inthe post-intervention stage; t (58) = -5.327, p= .000.

Since p<0.0005, hypothesis H3 has been accepted (Null hypothesis H2 is rejected). In other words, the mean scores of the level of depression, anxiety, and stress were less for those who attended the psycho-education intervention than for those who did not attend the intervention.

Effect size

The Group statistics show the mean and standard deviation values. The mean SD for the level of depression is (0.724+0.770)/2= 0.747. Therefore the effect size, d= (2.60- 1.40)/0.747= 1.60. This could be considered a large effect size. The mean SD for the level of anxiety is (0.858+0.922)/2= 0.89. Therefore the effect size, d= (3.33-1.57)/0.89= 1.97. This could be considered a large effect size. The mean SD for the level of stress is (0.254+0.890)/2= 0.572. Therefore the effect size, d= (1.97- 1.07)/0.572= 1.57. This could be considered a large effect size.

Association between socio-demographic characteristics and level of stress, anxiety, depression in students

Table 24: Inferential statistics report on the association between Socio-demographiccharacteristics and Depression, Anxiety, and Stress

	Depression			**Anxiety**			**Stress**		
Characteristics	**Chi^2**	**df**	***P***	**Chi^2**	**df**	***P***	**Chi^2**	**df**	***P***
Gender	1.45	3	0.693 *	11.00	4	.027 **	1.957	2	.376 *
Living Situation	31.02	6	.000 **	18.63	8	.017 **	12.62	4	.013 **
Father's Highest Education	23.55	12	.023 **	24.99	16	.070 *	11.29	8	.186 *
Mother's Highest Education	24.60	12	.017 **	34.15	16	.005 **	20.00	8	.010 **
Employment status of Father	31.88	15	.007 **	23.56	20	.262 *	13.45	10	.200 *
Employment status of Mother	51.84	18	.000 **	44.55	24	.007 **	14.10	12	.294 *
Monthly income of Father	38.57	15	.001 **	35.65	20	.017 **	23.61	10	.009 **
Monthly income of Mother	17.64	12	.127 *	16.54	16	.416 *	11.82	8	.159 *
Type of Family	40.05	3	.000 **	4.13	4	.389 *	3.64	2	.162 *
Number of Siblings	16.15	12	.185 *	37.05	15	.002 **	15.85	8	.045 **
Participation in Sports Activities	14.84	9	.095 *	23.34	12	.025 **	20.99	6	.002 **
Stressors	23.59	12	.023 **	45.07	16	.000 **	19.02	8	.015 **

* Since p> 0.05, the hypothesis is rejected.

** Since p< 0.05, the hypothesis is accepted

Table 24 presents the socio-demographic characteristics. A Chi-square test has been done on the data to determine whether there is any significant difference in the level of depression, anxiety, and stress concerning the socio-demographic characteristics.

The statistical report shows that:

1. There was no association between Gender and Depression; χ^2= 1.45, p= .693. Since p> 0.05, hypothesis H5 is rejected.
2. There was an association between Gender and Anxiety; χ^2= 11.00, p= .027. Since p<0.05, hypothesis H5 is accepted.
3. There was no association between Gender and Stress; χ^2= 1.957, p= .376. Since p >0.05, hypothesis H5 is rejected.
4. There was an association between Living situation and Depression; χ^2= 31.02, p= .000. Since p<0.05, hypothesis H5 is accepted.
5. There was an association between Living situation and Anxiety; χ^2= 18.63, p= .017. Since p<0.05, hypothesis H5 is accepted.
6. There was an association between Living situation and Stress; χ^2= 12.62, p= .013. Since p<0.05, hypothesis H5 is accepted.
7. There was an association between Father's Highest education and Depression; χ^2= 23.55, p= .023. Since p<0.05, hypothesis H5 is accepted.
8. There was no association between Father's Highest education and Anxiety; χ^2= 24.99, p= .070. Since p>0.05, hypothesis H5 is rejected.
9. There was no association between Father's Highest education and Stress; χ^2= 11.29, p=.186. Since p>0.05, hypothesis H5 is rejected.
10. There was an association between Mother's Highest education and Depression; χ^2= 24.60,p= .017. Since p<0.05, hypothesis H5 is accepted.
11. There was an association between Mother's Highest education and Anxiety; χ^2= 34.15, p=.005. Since p<0.05, hypothesis H5 is accepted.
12. There was an association between Mother's Highest education and Stress; χ^2= 20.00, p=.010. Since p<0.05, hypothesis H5 is accepted.
13. There was an association between the Employment status of the Father and Depression; χ^2= 31.88, p= .007. Since p<0.05, hypothesis H5 is accepted.
14. There was no association between the Employment status of the Father and Anxiety; χ^2= 23.56, p= .262. Since p>0.05, hypothesis H5 is rejected
15. There was no association between the Employment status of the Father and Stress; χ^2= 13.45,p= .200. Since p>0.05, hypothesis H5 is rejected.

16. There was an association between the Employment status of the Mother and Depression; χ^2= 51.84, p= .000. Note that the p-value can never equal zero. SPSS rounds to 3 decimal places,so p must be less than 0.0005 or it would appear as 0.001 (Brace et al, 2012). Since p<0.05, hypothesis H5 is accepted.
17. There was an association between the Employment status of the Mother and Anxiety; χ^2= 44.55,p= .007. Since p<0.05, hypothesis H5 is accepted.
18. There was no association between the Employment status of the Mother and Stress; χ^2= 14.10,p= .294. Since p>0.05, hypothesis H5 is rejected.
19. There was an association between the Monthly income of the father and Depression; χ^2= 38.57,p= .001. Since p<0.05, hypothesis H5 is accepted.
20. There was an association between the Monthly income of the father and Anxiety; χ^2=35.65, p=.017. Since p<0.05, hypothesis H5 is accepted.
21. There was an association between the Monthly income of the father and Stress; χ^2= 23.61, p=.009. Since p<0.05, hypothesis H5 is accepted.
22. There was no association between the Monthly income of the mother and Depression; χ^2= 17.64, p= .127. Since p>0.05, hypothesis H5 is rejected.
23. There was no association between the Monthly income of the mother and Anxiety; χ^2= 16.54,p= .416. Since p>0.05, hypothesis H5 is rejected.
24. There was no association between the Monthly income of the mother and Stress; χ^2= 11.82, p=.159. Since p>0.05, hypothesis H5 is rejected.
25. There was an association between the Type of family and Depression; χ^2= 40.05, p= .000. Since p<0.05, hypothesis H5 is accepted.
26. There was no association between Type of family and Anxiety; χ^2= 4.13, p= .389. Since p>0.05, hypothesis H5 is rejected.
27. There was no association between Type of family and Stress; χ^2= 3.64, p= .162. Since p>0.05, hypothesis H5 is rejected.
28. There was no association between the Number of Siblings and Depression; χ^2= 16.15, p=.185. Since p>0.05, hypothesis H5 is rejected.
29. There was an association between the Number of Siblings and Anxiety; χ^2= 37.05, p= .02. Since p<0.05, hypothesis H5 is accepted.
30. There was an association between the Number of Siblings and Stress; χ^2= 15.85, p=.045. Since p<0.05, hypothesis H5 is accepted.
31. There was no association between Participation in sports activities and Depression; χ^2= 14.84, p= .095. Since p>0.05, hypothesis H5 is rejected.

32. There was an association between Participation in sports activities and Anxiety; χ^2= 23.34,p= .025. Since p<0.05, hypothesis H5 is accepted.
33. There was an association between Participation in sports activities and Stress; χ^2= 20.99,p= .002. Since p<0.05, hypothesis H5 is accepted.
34. There was an association between Stressors and Depression; χ^2= 23.59, p= .023. Since p<0.05, hypothesis H5 is accepted.
35. There was an association between Stressors and Anxiety; χ^2= 45.07, p= .000. Sincep<0.05, hypothesis H5 is accepted.
36. There was an association between Stressors and Stress; χ^2= 19.02, p= .015. Since p<0.05, hypothesis H5 is accepted.

To summarize, the results obtained on analysis clearly show that there were no significant differences in the level of depression by gender, monthly income of mother, number of siblings, or participation in sports activities; however, a significant difference based on the following socio-demographic factors were observed, showing higher levels ofdepression:

- Living situation, with those living with parents.
- Father's highest education, with those having the qualification PUC, 12th or equivalent,and Graduate degree
- Mother's highest education, those qualifying for High school and PUC, 12thor equivalent.
- Employment status of the father, with those who are self-employed.
- Employment status of the mother, with those who are the homemaker.
- Monthly income of the father, with those having income of Rs.40,000 and above
- Type of family, with those belonging to nuclear family.
- Stressors, with those having fear of study/ failure

There were no significant differences in the level of anxiety by father's highest education, employment status of the father, Monthly income of mother, and type of family; however, a significant difference based on the following socio-demographic factors were observed, showing higher levels of anxiety:

- Gender, with those who belong to a female category,
- Living situation, with those living with parents.
- Mother's highest education, with those having qualification 12th, PUC, or equivalent
- Employment status of the mother, with those who are the maker.
- Monthly income of the father, with those having income of Rs.40, 000 and above.
- Number of siblings, with those having 1 or 2.
- Participation in sports activities, with those who do not participate in any sports.
- Stressors, with those having fear of study/ failure.

There were no significant differences in the level of stress by gender, father's highest education, employment status of the father, employment status of the mother, monthlyincome of mother, and type of family; however, a significant difference based on the following socio-demographic factors were observed, showing higher levels of stress:

- Living situation, with those living with friends.
- Mother's highest education, with those qualifying for High school.
- Monthly income of the father, with those having income in the range of Rs.20, 000-Rs. 40,000 and Rs.40, 000 and above.
- Number of siblings, with those having 1 or 2
- Participation in sports activities, with those who do not participate in any sports.
- Stressors, with those having fear of study/ failure and being unable to keep up with the workload.

Studies have shown that the highest education achieved by the parents appearedto be one of the causes of stress among students. In the study conducted by (Baviskar*et al.,* 2013), students whose parents were graduated showed lower levels of depression, anxiety, and stress when compared to those whose parents had achieved only primary education or were uneducated. The study also showed that performance in previous academics also played a significant role in mental health issues depression, anxiety and stress. The results obtained in the study show that students whose living situation is away from their parents were more likely to develop depression, anxiety, and stress. Studies have also shown that stress can increase due to changes in the environment. Students who lived in hostels showed higher levels of depression, anxiety, and stress when compared to those who lives with their parents. Loneliness is one of the causes of depression and stress. Financial problems were one of the major stressors for students. The stress level was found to be higher for students who had lower monthly incomes. In another study conducted by (Bhasin *et al.,* 2010), DASS scores were found to be higherfor students who had lower grades in their academics.

Correlation between the Study Variables- Depression, Anxiety and Stress

Researchers often measure the relationship between two variables used in their study. To achieve this, Pearson's *r* parametric test of correlation is computed to assess the strength and direction of the relationship between the variables depression, anxiety, and stress.

The value of *r* in table 24 represents the measure of correlation strength between two variables. The correlation strength is considered to be weak if the value of *r* ranges from 0 to .2 and strong if the values range from .3 to 1.

Table 25 shows the statistical reports generated on computing Pearson's correlation coefficient. The points inferred from the above table are:

- Pearson's correlation coefficient was computed to assess the relationship between

Depression and Anxiety. There was a positive correlation between the two variables, r = 0.053, p = 0.782. There was a weak, positive correlation between Depression and anxiety. An increase in depression was correlated with a slight increase in anxiety.

- Pearson's correlation coefficient was computed to assess the relationship between **Depression and Stress**. There was a positive correlation between the two variables, r= 0.428, p = 0.018. There was a strong positive correlation between Depression and stress. An increase in depression was correlated with an increase in stress.
- Pearson's correlation coefficient was computed to assess the relationship between **Anxiety and Stress**. There was a positive correlation between the two variables, r = 0.463, p = 0.010. There was a strong positive correlation between Anxiety and stress. An increase in anxiety was correlated with an increase in stress.

Table 25: Correlation between Depression, Anxiety, and Stress

					Correlation *r*			***P***		
	Variables	**N**	**Mean**	**SD**	**1**	**2**	**3**	**1**	**2**	**3**
1	Depression	30	2.03	.999	1	.053	.428*		.782	.018
2	Anxiety	30	3.10	1.242	.053	1	.463**	.782		.010
3	Stress	30	1.73	.828	.428*	.463**	1	.018	.010	

*Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level

The main points inferred are:

- The three variables- depression, anxiety, and stress were correlated.
- The severity level of mental health issues for the experimental and control group was nearly the same before conducting the intervention.
- It was found that there was a significant difference in depression, anxiety, and stress in the experimental group before and after the intervention.
- It was observed that there was a significant difference in the level of depression, anxiety, and stress in the experimental group when compared with the control group after the intervention.
- The level of depression, anxiety, and stress was comparatively less severe (or normal) after the intervention.

Misra *et al.* (2000) found a positive correlation between anxiety and academic stress in their study using Pearson's coefficient. Students who scored high on anxiety experienced one or more high stressors. In a similar study, it was observed that there was a significant association between the emotional problems faced by the students and their relationships with parents, siblings, and teachers due to the high level of pressure imposed on them during examinations. This in turn has increased their level of anxiety (Mutalik *et al.*, 2012).

SUMMARY AND FINDINGS

This chapter presents the summary of the research done, the key findings, the tenability of the hypothesis, the implications of this investigation, the conclusion, and suggestions for future research. Studies with varied sample sizes, research designs, interventions, effects on the outcome, and levels of evidence have been reviewed in this study. Depression, anxiety, and stress are commonly seen among students across the globe. These psychological issues not only affect students' academic performance but also the entire country as they are the future of the nation's growth. Researchers have to come forward to throw light on the causes and consequences of these issues.

The current study commenced on completion of the preparation of intervention modules and setting up of other questionnaires. Out of 100 students, 60 were selected for the research based on inclusion and exclusion criteria. The sample of the study was further randomly divided into experimental and control groups in equal numbers. Both groups had to fill socio- demographic sheets and respond to DASS-21 questionnaires. The experimental group was subjected to a psycho-education program. A significant number of undergraduate students were having a high level of depression, anxiety, and stress. The psycho-educational program succeeded to help students to manage and reduce their depression, anxiety, and stress after implementation of the program.

As per psycho educators, conduct change comes not simply from the control of natural factors (similarly as with the Behavioral Analysis model), yet from the advancement of a better perception of oneself as well as other people (the "psycho" part), and the act of better approaches for responding (the "training" part). Post-test was administered on both the experimental and control group, using the same tools used in the pre-test. Students have shown better approaches for reacting, and the restraint to forgo utilizing the previous unseemly activities.

The data obtained from both pre-test and post-test were used for statistical analysis which involved descriptive statistics and inferential statistics such as mean, SD, frequency, percentage, independent t-test, paired t-test, p-value, $chi^{2,}$ and Pearson's correlation. The hypothesis was tested based on the findings arrived at appropriate statistical analysis and data interpretation.

Method

The study is followed by a quasi-experimental design. The sample of the study included undergraduate students from a college affiliated with Mahatma Gandhi University, Kerala. Using the purposive sampling technique 100 samples participated, out of which 60 students (41 females and 19 males) were chosen for further proceedings based on the consideration of inclusion and exclusion criteria. The sample was divided equally into two groups- the experimental group and the control group randomly. Tests were administered for both the experimental and control group. The experimental group was subject to psycho-education intervention. Two months after the

completion of the session, a post-test was administered to both the experimental and control group. The data collected from the study was used for statistical analysis using the statistical software IBM SPSS 22.0 version.

The main statistical methods employed are:

1. Mean and S.D
2. Frequency and percentage
3. Chi^2, p-value, t- value
4. Pearson's correlation coefficient.

Objectives of the study

1. To evaluate the effectiveness of psycho-educational training programs on stress, anxiety, and depression.
2. To study the level of depression, anxiety, and stress among undergraduate college students at Mahatma Gandhi University, Kerala.
3. To study the association between various socio-demographic factors and depression, anxiety, and stress in students.
4. To evaluate stress, anxiety, and depression level among undergraduate college students by using DASS-21.
5. To compare the stress, anxiety, and depression level among undergraduate college students.

Measures

A Socio-Demographic Questionnaire was used to capture the demographic profile of the sample. The DASS-21 questionnaire is used to assess the level of Depression, Anxiety, and Stress and is often used in non-clinical research to measure the level of mental health factors in young adults. The questionnaire was designed by Syd Lovibond and Peter Lovibond at the University of New South Wales in 1995.

Intervention

The goal of the psycho-educational training program is actually to help people understand mental health conditions better. Understanding such situations is considered an essential factor in all therapeutic programs. It is a known fact that people who have a sound understanding of various challenges they face regularly, the self-knowledge of their ability to cope with internal and external resources by understanding their strengths and shortcomings, etc., can address various difficulties better. They seem to have a greater capacity to work toward good mental and emotional health as they feel they arein better control of their conditions.

Interventions in psychoeducation include a wide range of activities that combineactivities like counseling, supportive interventions, etc., with education. Such interventions may be specifically tailored and probably standardized for delivery to individuals or groups.

Psychoeducation or psycho-educational interventions enclose a wide range of activities thatblend education and other activities such as counseling and supportive interventions, which can be delivered individually.

Various studies conducted using psycho-educational interventions vary broadly, especially in specific content, the format followed the frequency at which the intervention is made or the timing at which it is done.

Analysis

Statistical analysis was done with the help of **IBM SPSS Statistics 22**. The means and standard deviations, t-test, independent t-test, and chi-square were used to find out the significant differences between the groups. As the experimental study involved about 100 students initially, which had to be downsized due to various reasons like procedure submission, some on medication, and the participation of all students. Elaborate intervention programs helped in gaining rapport with students and their involvement in sessions completely, and sincerely. Hence the integrity of the outcome is maintained.

Major findings

- The psycho-education modules developed by the researcher for the current study were found to be effective in the improvement of the mental health issues faced by the students.
- The intervention was found to be effective in a significant rise in the ability to handle various issues faced by the students in their life. Based on the analysis of the results obtained, it can be concluded that the psycho-educational training program was successful in the reduction of depression, anxiety, and stress faced by undergraduate students in a college under Mahatma Gandhi University.
- Almost 70% of students had come down to the normal level of depression after the intervention and the rest of the students persisted with mild or moderate depression.
- Positive changes were seen in students concerning their level of anxiety. Almost 20% of students had severe anxiety before the intervention. However, no students had severe or extremely severe levels of anxiety after the intervention and nearly 68% of students had come down to the normal level of anxiety.
- It was also observed that nearly 50% of students had a normal level of anxiety before the intervention. However, after the intervention, almost 90% of students had a normal level of anxiety.
- This showed that there exists a significant difference in the level of depression, anxiety, and stress among students before and after the intervention.
- The analysis of results also shows that there was a significant difference in the level of depression and socio-demographic characteristics- living situation, highest education achieved by parents, employment status of mother and father, monthly income of the

father, type of family and stressors; Anxiety, stress, and socio-demographic characteristics-gender, living situation, highest education achieved by mother, monthly income of the father, number of siblings, participation in sports, and stressors.

- Pearson's correlation results also showed that there existed a positive correlation between the three variables- Depression, Anxiety, and Stress; wherein a weak positive correlation was observed between depression and anxiety and a strong positive correlation was observed between Depression and stress; and Anxiety and Stress.

Tenacity of Hypothesis

The hypothesis formulated in the current study has been tested and analyzed using statistical methods.

Hypothesis 0

It reads, "There will be no significant difference between the level of stress, anxiety, and depression among students before and after intervention".

There was a significant difference in the level of depression for the experimental group after the intervention t (29) = 4.83, p = .000, level of anxiety t (29) = 10.25, p = .000, and level of stress t (29) = 4.82, p = .000. Since p<0.0005, the hypothesis H_1 has been accepted (Null hypothesis H_0 is rejected). Hence, H_0 has been rejected.

Hypothesis 1

It reads, "There will be a significant difference between the level of stress, anxiety, and depression among students before and after intervention".

There was a significant difference in the level of depression for the experimental group after the intervention t (29) = 4.83, p = .000, level of anxiety t (29) = 10.25, p = .000, and level of stress t (29) = 4.82, p = .000. Since p<0.0005, the hypothesis H_1 has been accepted (Null hypothesis H_0 is rejected). Hence, hypothesis H_1 is accepted.

Hypothesis 2

It reads, "The mean scores of the level of depression, anxiety, and stress were same for those who attended the psycho-education intervention than those did not attend".

There is a significant difference in the level of depression for the experimental group and control group in the post-intervention stage; t (58) = -6.218, p=.000, level of anxiety t (58) =-7.68, p=.000 and level of stress t (58) = -5.327, p= .000. Since p<0.0005, hypothesis H3 has been accepted (Null hypothesis H2 is rejected). Hence, hypothesis H_2 is rejected.

Hypothesis 3

It reads, "The mean scores of the level of depression, anxiety, and stress were less for those who attended the psychoeducation than those did not attend".

There is a significant difference in the level of depression for the experimental group and control group in the post-intervention stage; t (58) = -6.218, p=.000, level of anxiety t (58) =-

7.68, p=.000 and level of stress t (58) = -5.327, p= .000. Since p<0.0005, the hypothesis H3 has been accepted (Null hypothesis H2 is rejected). Hence, hypothesis H3 is accepted.

Hypothesis 4

It reads, "There will be no association between socio-demographic characters and level of stress, anxiety, depression in students".

Significant differences based on some of the socio-demographic factors were observed, showing higher levels of depression, anxiety, and stress with p< 0.005. Therefore, hypothesis H5 is accepted (Hypothesis H4 is rejected) Hence, hypothesis H4 is partially rejected.

Hypothesis 5

It reads, "There will be an association between socio-demographic characters and level of stress, anxiety, depression in students".

Significant differences based on some of the socio-demographic factors were observed, showing higher levels of depression, anxiety, and stress with p< 0.005. Therefore, hypothesis H5 is accepted (Hypothesis H4 is rejected). Hence, hypothesis H5 is partially accepted.

Implications of the study

In the current study, psycho-education facilitated the improvement of the mental well-being of the students and can be used under any circumstances where low mental health has been noted as a matter of concern. The high occurrence of depression, anxiety, and stress among these students highlights the significance of providing support programs and implementing preventive measures to help students, especially those who are at higher risk of psychological conditions. Psychological issues such as stress, depression, and anxiety are serious issues not only for the students but for everyone else. When the student has the knowledge of the ailment or severity of their condition their levels of anxiety increase due to which they get into severe stress and depression. The understanding of these aspects is done based on the review of (Cohen *et al.*, 1996) where they specifically address the significance of various studies on human psychoneuroimmunology as a key psychological factor in physical ailments.

Firstly, the psychological and biological plausible explanations of the different psychological factors which might have control over the immune system-intervened ailments are looked into. Secondly, a considerate amount of relevant data wherein the aspects of stress, clinical depression, support from society, negative effects of surroundings, repression/denial, etc., are seen to affect the cellular and humeral pointers of the immune system and its functional status (in turn leading to diseases like cancer and progression of AIDS).

Thirdly, there are consistent supporting facts of proof even diseases that are less severe (like influenza, colds, herpes) are linked to stress levels and negative thoughts which onsets the disease and progression. Awareness of psycho-education regarding psychological factors among experienced IT professionals and BPO employees can be considered helpful based on

suggestions by (Padma *et al.*, 2015) after their study using Holmes and Rahe stress tool. Early diagnosis and psycho-education could indeed bring positive changes among employees. Assistance can be given to a typical rehabilitation program using psycho-education which would involve associations with psychiatrists, nurses, occupational therapists, psychologists, and social workers to help rehabilitate the inpatients.

According to the review done by the Royal College of psychiatrists for April 2018 under their in-service program in the rehabilitation center, it is mentioned that inpatients with long-term mental health issues, can cope better with help and support from professionals in psychotherapeutic treatment.

Psycho-education awareness programs for the aged in old age homes help improve thought process that results in better life and recovery from ailments. A study done by (Bindu Bhatt *et al.*, 2014) relates the perceptions of inmates to their healthstatus. However, the majority are seen to have blood pressure and weakness followed by breathlessness, disturbed sleep, back pain, gastric problems, tingling in lower limbs, etc. Any awareness program concerning their mental distress due to loneliness and staying away from family could bring confidence to the vulnerable aged population.

Limitations of the study

The study was conducted only at one undergraduate college in Kerala affiliated with Mahatma Gandhi University, and with fewer students, N=100, using a quasi-experimental design with purposive sampling. Only four academic streams were comprised for study, namely-multimedia, journalism, computer science, and commercewith an age group of 18-21. Merely three dependent variables and few independent variables(socio-demographic characteristics) were used for the research which causes depression among undergraduate students.

Subsequent meet-ups were not directed to learn whether diminished depression, stress, and anxiety were kept up over some time. The unbalanced proportion of girls to boys is another vital confinement. Girls dominated boys 41 to 19, and this without a doubt impacted the discoveries of the investigation. Boys and females vary in a few areas, including hormone levels, development, social desires, and reactions on the surveys were no uncertainty affected by these attributes. Hence, it is believable that the discoveries of the investigation would have been distinctive had there not been such an extensive erroramong female and male members. It might be that concise psychoeducation impacts depression, stress, and anxiety immediately following the intervention, yet the underlying impacts may not be maintained after some time.

SUGGESTIONS FOR FUTURE RESEARCH

The study can be conducted with a higher sample size to determine the efficiency of psycho-education intervention in reducing the level of depression, anxiety, and stress. Further studies can be conducted by using variables like loneliness, substance abuse, self-esteem, hopelessness, adjustment issues with people in the immediate environs, economic factors, etc. which can cause depression among undergraduate students.

Psychological factors like single parenting, stress due to educational loans, cost of higher education, not having subject satisfaction, parental pressures and satisfaction, societal pressures, academic stress, relationship issues, and many more can include parents also for future research by considering the above-mentioned factors.

Adjusted groups (e.g., an equal number of girls and boys) may likewise be valuable in consequent research, and it might likewise be helpful to center exclusively around guys or exclusively on females to discover the impacts of psychoeducation on one sex versus the other. Moreover, future research may profit by using follow-up measures to find out if the impacts of psychoeducational methods are kept up or adjusted over some time. Future research ought to likewise center around brief psychoeducational parts and their potential utility in diminishing depressive side effects. Future research may profit by concentrating on lengthier psychoeducational programs and the potential consequences for students' depression, stress, and anxiety.

CONCLUSION

The data provided by 60 students were first subjected to analysis. The overall results obtained by both experimental and control groups showed that more than 50% of the population had mild to severe levels of mental health issues- depression, anxiety, and stress. The descriptive statistical table revealed that the mean level of depression (M= 1.27), anxiety (M= 1.60), and stress (M= 1.00) was less in the post-intervention phase when compared to the pre-intervention phase (M= 1.93, M= 3.27 and M= 1.73 respectively). The correlation among the study variables showed that they are positively correlated with each other. Depression and anxiety had a weak positive correlation; Depression and stress had a strong positive correlation; Stress and anxiety had a strong positive correlation. The sample was categorized into two groups randomly which was later on proved to be effective. The mental health status of both the experimental and control group was nearly the same.

The psycho-education intervention package consisted of various strategies to improve the behavior of students which would help them in dealing with the issues they face. The students played an active role in the sessions provided to them during the intervention. The analysis of the data also showed that students whose parents were self-employed, homemakers and unemployed affected their mental health.

It was also observed that students who had fear of examination failure and an inability to keep up with workload were also affected with higher levels of depression, anxiety, and stress. Students who were not involved in sports activities apart from their academics reported higher levels of anxiety and stress. Females exhibited higher levels of anxiety than male students. Follow-up was done on completion of the intervention to both the experimental and control group. As the control group did not undergo psycho-educational intervention, there were not many changes in their mental health issues. The comparative analysis between the experimental and control, group in the post-intervention phase confirmed the effectiveness of the psycho-educational program.

The study concludes that depression, stress, and anxiety are high among college students and factors that affect these mental health issues, along with socio-demographic traits have been analyzed in this study. The undergraduate students who got psycho-educational training programs were found to have a lower level of depression, stress, and anxiety at the end of the program when compared to the start of the intervention program.

It is suggested that psycho-educational programs be made an integral part of any educational course for the healthy mental and emotional state of students. Considering the

multicultural and diverse socio-demographic profile of the society, and competitiveness in people, these programs can also be given at competitive coaching centers where the students are pressurized to achieve the best score and rank in competitive exams.

REFERENCES

Aaron, R. E., Rinehart, K. L., & Ceballos, N. A. (2011). Arts-based interventions to reduceanxiety levels among college students. *Arts & Health*, 3(1), 27–38. doi:10.1080/17533015.2010.481290.

American Adolescents: A Controlled Pilot Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(7), 768–775. doi:10.1097/00004583-200207000-00007

An Evidence-Based Practice of Psychoeducation for Schizophrenia, (2012), Retrieved from http://www.psychiatrictimes.com/schizophrenia/evidence-based-practice- psychoeducation-schizophrenia

Antoni, M. h., Ironson, G., Schneiderman, N. (2007). *Cognitive behavioral stress management:* workboo*k* (treatment that works). Masochist.

Anxiety: American Psychological Association (2018). Retrieved from https://www.apa.org/topics/anxiety/index.aspx

Arefi KH, Momeni F and Mohsenzadeh R, (2012). Comparison of individual cognitive therapy and relaxation therapy in the treatment of high school student's academic stress. *Journal of Kermanshah University of Medical Sciences 1(1)32-46.*

Astin, J. A. (1997). Stress Reduction through Mind fullness Meditation. *Psychotherapy and Psychosomatics*, 66(2), 97–106. Doi: 10.1159/000289116.

Barrett, P. M., Sonderegger, R., & Xenos, S. (2003). Using Friends to Combat Anxiety and Adjustment Problems among Young Migrants to Australia: A National Trial. *Clinical Child Psychology and Psychiatry*, 8(2), 241–260. doi:10.1177/1359104503008002008.

Barrios, B. A., & Shigetomi, C. C. (1979). Coping-skills training for the management of anxiety: A critical review. *Behavior Therapy*, 10(4), 491–522. doi:10.1016/s0005- 7894(79)80052-0

Barsevick, A. M., Sweeney, C., Haney, E., & Chung, E. (2002). A Systematic Qualitative Analysis of Psychoeducational Interventions for Depression in Patients with Cancer. *Oncology Nursing Forum*, 29(1), 73–87. doi:10.1188/02.onf.73-87

Bartels, S. J. (2004). Caring for the Whole Person: Integrated Health Care for Older Adults with Severe Mental Illness and Medical Comorbidity. *Journal of the American Geriatrics Society*, 52, S249–S257. doi:10.1111/j.1532- 5415.2004.52601.x.

Baviskar, M. P., Phalke, V. D., & Phalke, D. B. (2013). A Study of Socio-Demographic Factors and their Association with Depression, Anxiety and Stress in Junior College Students in a Rural Area of India. *Medical Science*, 2(12).

Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety, and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, 43(8), 667–672. doi:10.1007/s00127-008-0345-x.

Beck, A. T. (1993). Cognitive therapy: Past, present, and future. *Journal of Consulting* and *Clinical Psychology*, 61(2), 194-198. doi:10.1037/0022- 006X.61.2.194

Behere, S., Behere, P., & Yadav, R. (2011). A Comparative Study of Stress among Students of Medicine, Engineering, and Nursing. *Indian Journal of Psychological Medicine*, 33(2), 145. doi:10.4103/0253-7176.92064

Bhasin, S K., Sharma, R., & Saini N K. (2010) Depression, anxiety, and stress among adolescent students belonging to affluent families: a school-based study. Indian Journal of Pediatrics, 77(2), 161-165. DOI: 10.1007/s12098-009-0260-5.

Bhujade, V. M. (2017). Depression, anxiety and academic stress among college students: A brief review. *Indian Journal of Health & Wellbeing*, 8(7), 748-751.

Bindu M. Bhatt., Shivani, Vyas. & Janak, P. Joshi. (2014). Aging and Health A. Health Profile Of Inmates of Old Age Home. *Indian Journal of Gerontology*, 18(2), *p.*151 -158.

Bistricky, S. L., Harper, K. L., Roberts, C. M., Cook, D. M., Schield, S. L., Bui, J., & Short, M. B. (2017). Understanding and Promoting Stress Management Practices among College Students through an Integrated Health Behavior Model. American Journal of Health Education, 49(1), 12–27. doi:10.1080/19325037.2017.1377651

Brace, N., Kemp, R. & Snelgar, R. (2012) *SPSS for Psychologists*. Macmillan International Higher Education.

Brand, E. F., Lakey, B., & Berman, S. (1995). A preventive, psycho-educational approach to increase perceived social support. *American Journal of Community Psychology*, 23(1), 117–135. doi:10.1007/bf02506925

Brent, D. A., Kolko, D. J., Wartella, M. E., Boylan, M. B., Moritz, G., Baugher, M., & Zelanak, J. P. (1993). Adolescent Psychiatric Inpatients' Risk of Suicide Attempt at 6-Month Follow-up. *Journal of the American Academy of Child & Adolescent Psychiatry*, 32(1), 95–105. doi:10.1097/00004583-199301000- 00015

Brigman, G., & Campbell, C. (2003). Helping students improve academic achievement and school success behavior. *Professional School Counseling*, 7, *p.*91–98.

Brown, R. A., & Lewinsohn, P. M. (1984). A psycho-educational approach to the treatment of depression: Comparison of the group, individual, and minimal contact procedures. *Journal of Consulting and Clinical Psychology*, 52(5), 774–783. doi:10.1037/0022-006x.52.5.774

Buchanan, J. L. (2012). Prevention of Depression in the College Student Population: A Review of the Literature. *Archives of Psychiatric Nursing*, 26(1), 21–42. doi:10.1016/j.apnu.2011.03.003

Campbell, R. L., Svenson, L. W., & Jarvis, G. K. (1992). Perceived Level of Stress among University Undergraduate Students in Edmonton, Canada. Perceptual and Motor Skills, 75(2), 552–554. doi:10.2466/pms.1992.75.2.552

Charlesworth, E. A., Murphy, S., & Beutler, L. E. (1981). Stress management skills for nursing students. *Journal of Clinical Psychology*, 37(2), 284–290. doi:10.1002/1097-4679(198104)37:2<284::aid-jclp2270370210>3.0.co;2-8

Chiauzzi, E., Brevard, J., Thurn, C., Decembrele, S., & Lord, S. (2008). MyStudentBody–Stress: An Online Stress Management Intervention for College Students. *Journal of Health Communication*, 13(6), 555–572. doi:10.1080/10810730802281668

Chiesa, A., & Serretti, A. (2009). Mindfulness-Based Stress Reduction for Stress Management in Healthy People: A Review and Meta-Analysis. *The Journal of Alternative and Complementary Medicine*, 15(5), 593–600. doi:10.1089/acm.2008.0495

Chinaveh, M. (2013). The Effectiveness of Multiple Stress Management Intervention on the Level of Stress, and Coping Responses among Iranian Students. *Procedia - Social and Behavioral Sciences*, 84, 593–600. doi:10.1016/j.sbspro.2013.06.610

Chowdury, U., Caulfield, C., & Hayman, I. (2003). Service innovations: A group for children and adolescents with obsessive-compulsive disorder. *Psychiatric Bulletin, 27(5),* 187-189.

Christensen H, Griffiths KM, Korten,(2002) A Web-based Cognitive Behavior Therapy: Analysis of Site Usage and Changes in Depression and Anxiety Scores J Med Internet 4(1):e3 DOI: 10.2196/jmir.4.1.e3

Connell, A. M., & Dishion, T. J. (2008). Reducing depression among at-risk early adolescents: Three-year effects of a family-centered intervention embedded within schools. *Journal of Family Psychology*, 22(4), 574–585. doi:10.1037/0893- 3200.22.3.574

Corey, G. (2009). *Theory and practice of counseling and psychotherapy*. Nelson Education, California State University, Fullerton.

Deckro, G. R., Ballinger, K. M., Hoyt, M., Wilcher, M., Dusek, J., Myers, P, Benson, H. (2002). The Evaluation of a Mind/Body Intervention to Reduce Psychological Distress and Perceived Stress in College Students. *Journal of American College Health*, 50(6), 281–287. doi:10.1080/07448480209603446

Dehghan-nayeri, N., & Adib-Hajbaghery, M. (2011). Effects of progressive relaxation on anxiety and quality of life in female students: A non-randomized controlled trial. *Complementary Therapies in Medicine*, 19(4), 194–200. doi:10.1016/j.ctim.2011.06.002.

Dehghan-nayeri, N., & Adib-Hajbaghery, M. (2011). Effects of progressive relaxation on anxiety and quality of life in female students: A non-randomized controlled trial. Complementary Therapies in Medicine, 19(4), 194–200. doi:10.1016/j.ctim.2011.06.002

Depression in India- Let's Talk (2017) *World Health Organization* Retrieved from http://www.searo.who.int/india/depression_in_india.pdf

Depression: American Psychological Association, (2018), Retrieved from http://www.apa.org/topics/depression/index.aspx

Dolbeault, S., Cayrou, S., Brédart, A., Viala, A. L., Desclaux, B., Saltel, P, Dickes, P. (2009). The effectiveness of a psycho-educational group after early-stage breast cancer treatment: results of a randomized French study. *Psycho-Oncology*, 18(6), 647–656. doi:10.1002/pon.1440

Donker, T., Griffiths, K. M., Cuijpers, P., & Christensen, H. (2009). Psychoeducation for depression, anxiety, and psychological distress: a meta-analysis. *BMC Medicine*, 7(1). doi:10.1186/1741-7015-7-79.

Dr. Mac's (2006) *Amazing Behavior Management Advice Site*. Retrieved from http://www.behavioradvisor.com

Encyclopedia of Special Education (1986). *Psychoeducation* pp. 1265-1266. New York:Wiley.

Fristad, M. A., Goldberg-Arnold, J. S., & Gavazzi, S. M. (2003). Multi-family psycho-education groups in the treatment of children with mood disorders. *Journal of Marital and Family Therapy*, 29(4), 491–504. doi:10.1111/j.1752- 0606.2003.tb01691.x

Frith, E., & Loprinzi, P. (2017). Can Facebook Reduce Perceived Anxiety Among College Students? Randomized Controlled Exercise Trial Using the Trans theoretical Model of Behavior Change. *JMIR Mental Health* 2017;4(4):e40) doi:10.2196/mental.7847

Garland, A., Shaffer, D., & Whittle, B. (1989). A national survey of school-based, adolescent suicide prevention programs. *Journal* of the *American Academy* of *Child* and *Adolescent Psychiatry*, 28,931–934

Gaynor, S. T., & Lawrence, P. S. (2002). Complementing CBT for depressed adolescents with Learning through in Vivo Experience (LIVE): Conceptual analysis, treatment description, and feasibility study. *Behavioral* and *Cognitive Therapy*, 30(1), 79– 101.

Geneva: WHO World Health Organisation. (2004). the Global Burden of Disease: 2004 Update. Geneva: Author.

Ghosh, S. (2017, May 21), Most students in India prone to depression, *The Asian Age*. Ginsburg, G. S., & Drake, K. L, (2002). School-Based Treatment for Anxious African-

Gussak, D. (2007). The effectiveness of art therapy in reducing depression in prison populations. *International Journal of Offender Therapy and Comparative Criminology*, 51, 444–460. doi:10.1177/0306624X06294137

Hamdan-Mansour, A. M., Puskar, K., & Bandak, A. G. (2009). Effectiveness of Cognitive-Behavioral Therapy on Depressive Symptomatology, Stress and Coping Strategies among Jordanian University Students. *Issues in Mental Health Nursing*, 30(3), 188– 196. doi:10.1080/01612840802694577.

Hayes, C. & Morgan, M. (2005). Evaluation of a psycho- educational program to help adolescents cope. *Journal of Youth and Adolescence*, 34(2), 111–121.

Hess, S. G., Cox, T. S., Gonzales, L. C., Kastelic, E. A., Mink, S. P., Rose, L. E., & Swartz, K. L. (2004). A survey of adolescents' knowledge about depression. *Archives of Psychiatric Nursing*, 18(6), 228–234. doi:10.1016/j.apnu.2004.09.005

Hindustan Times. (2018). Wake up to the enormity of student suicides in India. *Hindustan Times*. Retrieved from https://www.hindustantimes.com/editorials/wake- up-to-the-enormity-of-student-suicides-in-India/story- DjnDTLCcZOjicLaxs2fy3L.html

Hintz, S., Frazier, P. A., & Meredith, L. (2015). Evaluating an online stress management intervention for college students. *Journal of Counseling Psychology*, 62(2), 137– 147. doi:10.1037/cou0000014

Hogg, J. A., & Deffenbacher, J. L. (1988). A comparison of cognitive and interpersonal-process group therapies in the treatment of depression among college students. *Journal of Counseling Psychology*, 35(3), 304–310. doi:10.1037/0022- 0167.35.3.304

Hossein Kaviani, Foroozan Javaheri, & Neda Hatami, (2011), Mindfulness-based Cognitive Therapy (MBCT) Reduces Depression and Anxiety Induced by Real Stressful Setting in Non-clinical Population, *International Journal of Psychology and Psychological Therapy*, 11(2), pp. 285-296.

Hossfeld, B. (2008). Developing friendships and peer relationships: Building social support with the Girls Circle program. In C.W. LeCroy & J.E. Mann (eds.), *Handbook of prevention and intervention programs for adolescent girls* (pp. 42-80). Hoboken, New Jersey: John Wiley and Sons.

Indian youngsters show early signs of depression: Study, (2017), Retrieved from https://www.hindustantimes.com/health-and-fitness/65-indian-youngsters-show- early-signs-of-depression-study/story9JJoIWNn0FsRINKcHFYnwM.html

Jakobsen, H., Andersson, G., Havik, O. E., & Nordgreen, T. (2017). Guided Internet-based cognitive behavioral therapy for mild and moderate depression: A benchmarking study. *Internet Interventions*, 7, 1–8. doi:10.1016/j.invent.2016.11.002.

Jessica L. Grayson, Heather K. Alvarez,(2008), School climate factors relating to teacher burnout, *An International Journal Of Teaching and teacher education*,24(5),1349- 1363.

Joel Brown, J. (2016). *Anxiety: The Most Common Mental Health Diagnosis in College Students | BU Today | Boston University*. BU Today. Retrieved from http://www.bu.edu/today/2016/college-students- anxiety-and- depression/

Johansson, N. (1991). Effectiveness of a Stress Management Program in Reducing Anxiety and Depression in Nursing Students. *Journal of American College Health*, 40(3), 125–129. doi:10.1080/07448481.1991.9936268

Kang, Y. S., Choi, S. Y., & Ryu, E. (2009). The effectiveness of a stress coping program based on mindfulness meditation on the stress, anxiety, and depression experienced by nursing

students in Korea. *Nurse Education Today*, 29(5), 538– 543. doi:10.1016/j.nedt.2008.12.003

Keogh, E., Bond, F. W., & Flaxman, P. E. (2006). Improving academic performance and mental health through a stress management intervention: Outcomes and mediators of change. *Behaviour Research and Therapy*, 44(3), 339–357. doi:10.1016/j.brat.2005.03.002

Keshi, A. K., Basavarajappa, P., & Nik, M. M. (2013). Effectiveness of cognitive behaviortherapy on depression among high school students, *Journal of Basic and Applied Scientific Research*, 3(2)147-158

Kim, E., & Cain, K.C. (2008). Korean-American adolescent depression and parenting.

Kolene, K., Hartly, D., & Murdock, N. (1990). The relationship of mild depression to stress and coping. *Journal of Mental Health Counselling*, 12(1), 76-92.

Kraag, G., Zeegers, M. P., Kok, G., Hosman, C., & Abu-Saad, H. H. (2006). School programs targeting stress management in children and adolescents: A meta-analysis.Journal of School Psychology, 44(6), 449–472. doi:10.1016/j.jsp.2006.07.001

Kumar, C. (2018). One student kills themself every hour in India. *Times of India*. Retrieved from https://timesofindia.indiatimes.com/india/one-student-kills-self-every- hour- in-India/articles how/62407752.cms

Kumar, S., S, K., Kulkarni, P., Siddalingappa, H., & Manjunath, R. (2015). Depression, anxiety and stress levels among medical students in Mysore, Karnataka, India. *International Journal of Community Medicine And Public Health*, 3(1), 359-362. DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20151591

Kunwar, D., Risal, A., & Koirala, S. (2016). Study of depression, anxiety, and stress among the medical students in two medical colleges of Nepal. *Kathmandu University Medical Journal*, 53(1), 22-6.

La Civita, R. G. (1982). Stress-Management Programming and the College Student: A Report. *Journal of American College Health* Association, 30(5), 237–239. doi:10.1080/07448481.1982.9938900

Larun L, Nordheim LV, Ekeland E, Hagen KB, Heian F (2006). Exercise in the prevention and treatment of anxiety and depression among children and young people. *Cochrane Database of Systematic Reviews,* Issue 3. Art. No.: CD004691. DOI: 10.1002/14651858.CD004691.pub2

Lavretsky, H. (2005). Stress and depression in informal family caregivers of patients with Alzheimer's disease. Aging Health, *Online Journal of Future Medicine, 1*(1), 117– 133. doi:10.2217/1745509x.1.1.117

Levin, M. E., Haeger, J. A., Pierce, B. G., & Twohig, M. P. (2017). Web-based acceptance and commitment therapy for mental health problems in college students: A randomized controlled trial. *Behavior Modification*, 41(1), 141- 162.

Little, S., & Jackson, B. (1974). The treatment of test anxiety through attentional and relaxation training. Psychotherapy: Theory, *Research & Practice*, 11(2), 175– 178. doi:10.1037/h0086333

Lumley, M. A., & Provenzano, K. M. (2003). Stress management through written emotional disclosure improves academic performance among college students with physical symptoms. *Journal of Educational Psychology*, 95(3), 641–649. doi:10.1037/0022-0663.95.3.641

Mahmoud, J. S. R., Staten, R. T., Hall, L. A., & Lennie, T. A. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles. *Issues in mental health nursing*, 33(3), 149-156.

Mak, W. W., Chio, F. H., Chan, A. T., Lui, W. W., & Wu, E. K. (2017). The efficacy of Internet-based mindfulness training and cognitive-behavioral training with telephone support in the enhancement of mental health among college students and young working adults: Randomized controlled trial. *Journal of medical Internet research*, 19(3):e84. doi: 10.2196/jmir.6737.

Manicavasagar, (2012). *A review of depression diagnosis and management* | APS. .34(1)Retrieved from https://www.psychology.org.au/publications/inpsych/2012/february/manicavas agar

Manjula, M. (2016). Academic Stress Management: An intervention in Pre-University College Youth. *Journal of the Indian Academy of Applied Psychology*, *42*(1), 128- 133.

McClure, E. B., Connell, A. M., Zucker, M., Griffith, J. R., & Kaslow, N. J. (2005). The Adolescent Depression Empowerment Project (ADEPT): A Culturally Sensitive Family Treatment for Depressed African American Girls. In E. D. Hibbs & P. S. Jensen (Eds.), *psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 149-164). Washington, DC, US: American Psychological Association.

Merry S, McDowell H, Hetrick S, Bir J, Muller N: Psychological and/ or educational interventions for the prevention of depression in children and adolescents. *Cochrane Database System Rev* 2004:CD003380.

Miltenberger, R. (2008). *Behavior Modification Principles and Procedures* (4th ed., pp. 474, 478, 484). Cengage Learning.

Misra, R., & McKean, M. (2000). College students' academic stress and its relation to theiranxiety, time management, and leisure satisfaction. *American Journal of Health Studies,* 16(1), 41-51.

Mohsin, S., Shahid, H., & Samina, M, (2013), CTS. Perceived Stress, Sources, and Severity of Stress among medical undergraduates in a Pakistani Medical School. *Journal of Chemical Information and Modelling*; 53(9):1689–99.

Muriungi, S. K., & Ndetei, D. M. (2013). Effectiveness of psycho-education on depression, hopelessness, suicidality, anxiety and substance use among basic diploma students at Kenya Medical Training College. *South African Journal of Psychiatry*, 19(2), 41. doi:10.7196/sajp.401

Mutalik N, S Moni, S Choudhari and G Bhogale (2016), Depression, Anxiety, Stress among College Students in Bagalkot: A College Based Study. *International Journal of Indian Psychology*, 3(4), pp.179-186.

Mwangi, G. (2017). Effectiveness of Psycho-Education Model in Improving the Quality of Life (QoL) of Women with Comorbid Symptoms of Anxiety and Depressive Disorders in Resource-Poor Settings in Laikipia County, Kenya. *African Journal of Clinical Psychology*, 1, pp.36-50.

Nambudiri, Sudha. (2017), Psychological distress is leaving youth depressed and moody,says the study, *Times of India. ttps://timesofindia.indiatimes.com/city/kochi/psychological-distress-is-leaving- youth-depressed-and-moody-says-study/articles how/59433644.cms*

Nature.com. (2018). *More than one-third of graduate students report being depressed.* Retrieved from https://www.nature.com/articles/d41586-018-03803-3.

Nicholson T, Belcastro PA, Duncan DF.(1989). An evaluation of a university stress management program. *College Student Journal.* 23(1):76–81.

Oman, D., Shapiro, S. L., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). MeditationLowers Stress and Supports Forgiveness among College Students: A Randomized Controlled Trial. *Journal of American College Health,* 56(5), 569–578. doi:10.3200/jach.56.5.569-578

Overview of the DASS and its uses (2018). Retrieved from http://www2.psy.unsw.edu.au/dass/over.htm

P. Ratanasiripong, K. Sverduk, D. Hayashino, and J. Prince, (2010) Setting up the next generation biofeedback program for stress and anxiety management for college students: A Simple and Cost -Effective Approach," *College Student Journal*, 44, pp.97–100.

Padma, V, N. N. Anand, S. M. G. Swaminatha Gurukul, S. M. A. Syed Mohammed Javid, Arun Prasad, and S. Arun,(2015), *Journal of Pharmacy & Bio Allied Science,*7(5), DOI: 10.4103/0975-7406.155764.

Palmer, S. & Dryden, W. (1995). *Counseling for Stress Problems*. London: Sage. Parkitny,L., & McAuley, J. (2010). The Depression Anxiety Stress Scale (DASS).*Journal of physiotherapy*, 56(3), 204.

Patrick, K. (2014). *Depression deserves better treatment*. Canadian Medical Association.Journal, 186(14), 1043. Retrieved from https://search.proquest.com/docview/1613120216?accountid=14205.

Peterson, L. G., & Pbert, L. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *Am J Psychiatry*, 149(7), 936-943.

Portzky, G., & van Herringen, K. (2006). Suicide prevention in adolescents: A controlled study of the effectiveness of a school-based psycho-educational program. *Journal of Child Psychology and Psychiatry, 47(9),* 910-918.

Priya P Roy, Kumar Sai Sailesh, M A Doshi. (2015), Depression, anxiety, and stress among first-year undergraduate medical students, *Asian Journal of Biomedical and Pharmaceutical Sciences*, 5(45), 37-38.

Psychoeducation: Good Therapy (2016). Retrieved from https://www.goodtherapy.org/blog/psychpedia/psychoeducation

R. Saipanish, (2003) Stress among medical students in a Thai medical school, *Medical Teacher*, 25, (5), pp. 502–506.

Ramdan N., E., & A. A. Ahmed, H. (2015). The Effect of Health Educational Program on Depression, Anxiety, and Stress among Female Nursing Students at Benha University,*IOSR Journal Of Nursing And Health Science, 4(3),* 49-56. DOI: 10.9790/1959- 04344956

Ratanasiripong, P., Kaewboonchoo, O., Ratanasiripong, N., Hanklang, S., & Chumchai, P.(2015). Biofeedback Intervention for Stress, Anxiety, and Depression among Graduate Students in Public Health Nursing. *Nursing Research and Practice. http://dx.doi.org/10.1155/2015/160746*

Rebecca L Stephens, Ph.D., RN, (1992), Imagery: A Treatment for Nursing Student Anxiety, *Journal of Nursing Education,* 31(7), 314-320.

Regehr, C., Glancy, D., & Pitts, A. (2012). Interventions to reduce stress in university students: A review and meta-analysis. *Journal of Affective Disorders*, *148*(1), 1-11.

Reyes, C. Y. (2010). *What is psycho-education?* Retrieved from http://thepsycho educationalteacher.blogspot.com/2010/10/what-is-psycho-education.html

Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology*, 54(5), 653–660. doi:10.1037/0022- 006x.54.5.653

Romano, J. (1984). Stress Management and Wellness: Reaching beyond the Counsellors' office. *Personnel & Guidance Journal*, 62(9), 533-537. http://dx.doi.org/10.1111/j.2164-4918.1984.tb00270.x

Roy, P. (2015). Depression, anxiety, and stress among first-year undergraduate medical students. *Asian Journal Of Biomedical And Pharmaceutical Sciences*, 05(45), 37-38. http://dx.doi.org/10.15272/ajbps.v5i45.716.

Ruble, A., Leon, P., Hensley, L., Hess, S. and Swartz, K. (2013). Depression knowledge in high school students: Effectiveness of the adolescent depression awareness program. *Journal of Affective Disorders*, 150(3), pp.1025-1030.

Russler, M., (1991). Multidimensional stress management in nursing education. *Journal of Nursing Education 30*, 341–346.

Ryan J. Van Lieshout, Glenda M. MacQueen, Relations between Asthma and Psychological Distress, *Chemical Immunology and Allergy Journal*, vol,98, pp 1- 13,2012.

Saeed Pahlavanzadeh; Ali Navidian; Mohsen Yazdani, (2010), the effect of psycho-education on depression, anxiety and stress in family caregivers of patients with mental disorders. *Behbood*, 14(3), pp.228-236.

Saipanis HR (2003). Stress among medical students in a Thai medical school. *Med. Teach.* 25:502-506.

Sanford, M., Boyle, M., McCleary, L., Miller, J., Steele, M., & Duku, E. et. al. (2006). A pilot study of adjunctive family psychoeducation in adolescent major depression: Feasibility and treatment effect. *Journal of the American Academy of Child and Adolescent Psychiatry, 45(4)*, 386-395.

Schechtman, Z., Bar-El, O., & Hadar, E. (1997). Therapeutic factors in counseling and Psychoeducation groups for adolescents: A comparison. *Journal for Specialists in Group Work, 22(3)*, 203-213.

ScienceDirect- Behavior Therapy (2018). Retrieved from https://www.sciencedirect.com/topics/neuroscience/behavior-therapy

Segal, Z., Teasdale, J., Williams, M., 2002. *Mindfulness-Based Cognitive Therapy for Depression*. Guilford Press, New York.

Shahmohammadi, N. (2011). Effectiveness of Cognitive: Behavioural Management of Stress on Students' Homesickness, *International Conference on Education And Management Technology, 13*, 71-76.

Shamsuddin, K., Fadzil, F., Ismail, W. S. W., Shah, S. A., Omar, K., Muhammad, N. A., & Mahadevan.R. (2013). Correlates of depression, anxiety, and stress among Malaysian university students. *Asian journal of psychiatry*, 6(4), 318- 323.

Shapiro SL, Schwartz GE (2000). Stress management in medical education. *Acad. Med*. 75:748-759.

Shawaz Iqbal, Sandhya Gupta & E. Venkatarao (2015). Stress, anxiety & depression among medical undergraduate students & their socio-demographic correlates. *Indian J Med Res* 141, pp. 354-357.

Sheldon Cohen and Tracy B. Herbert (1996), Psychological Factors and Physical Disease from the Perspective of Human Psychoneuroimmunology *Annual Review of Psychology*, 47(1), 113-142.

St. Lawrence, J., McGrath, M., Oakley, M., Sult, S., (1983). Stress management training for law students: cognitive-behavioral intervention. *Behavioral Sciences and the Law 1*, pp. 101–110.

Stark, K. D., Reynolds, W. M., & Kaslow, N. J. (1987). A comparison of the relative efficacy of self-control therapy and behavioral problem-solving therapy for depression in children. *Journal of Abnormal Child Psychology*, 15(1), 91–113. doi:10.1007/bf00916468

Stress Symptoms of College Students. *Nursing Research,* 32(6), 362??? 366. doi:10.1097/00006199-198311000-00009

Stress: American Psychological Association (2018). Retrieved from https://www.apa.org/helpcenter/understanding-chronic-stress.aspx

Sumi Sukanya D (2018). Psychiatrists work on a new model for educational institutes as student suicides mount. *The NewIndianExpress*. Retrieved from http://www.newindianexpress.com/thesund standard/2018/Jun/03/psychiatrists- work-on-new-model-for- educational- institutes-as-student-suicides-mount- 1822952. HTML.

Supe AN (1998). A study of stress in medical students at Seth G.S medical college. *J. Postgrad. Med*.44 (1):1-6.

Suryani, Suryani & Widianti, Efri & Hernawati, Taty & Sriati, Aat. (2016). the effectiveness of psycho-education towards depression, anxiety, and stress level of patients with pulmonary tuberculosis. *Jurnal Ners*. 11. 128-133.

Teh, C., Ngo, C., Zulkifli, R., Vellasamy, R., & Suresh, K. (2015). Depression, Anxiety, and Stress among Undergraduate Students: A Cross-Sectional Study. *Open Journal Of Epidemiology*, 5(4), 260-268.

The health of young people. A challenge and a promise. (1996.) World Health Organization. Geneva. 1993.

Thurston, B.A.' Craig Barr Tailor, M.D,(2011)An E-mail Delivered CBT for Sleep-Health Program for College Students: Effects on Sleep Quality and Depression Symptoms,*Journal of Sleep Medicine,* 7(3):276-281

UK Essays. (2018). *Stress, Anxiety, and Depression among College Students*. [Online] Available at: https://www.ukessays.com/essays/psychology/depression-among- college-students.php [Accessed 5 Jan. 2018].

Velayudhan, A., Gayatri Devi, S., & Bhattacharjee, R. R. (2010). Efficacy of behavioral intervention in reducing anxiety and depression among medical students. *Industrial psychiatry journal*, 19(1), 41.

Wampold, B. E., Minami, T., Baskin, T. W., & Callen Tierney, S. (2002). A meta- (re)analysis of the effects of cognitive therapy versus "other therapies" for depression. *Journal of Affective Disorders*, 68(2-3), 159–165.

Wang, J., Wang, H., & Zhang, D. (2011). Impact of group music therapy on the depressionmood of college students. *Scientific Research*, 3(3), 151-155.

Wang, Q. (1997). The effect of psychological education on the mental health status of middle school students. *Chinese Mental Health Journal*, 11(5), 284-285.

Warnecke, E., Quinn, S., Ogden, K., Towle, N., Nelson, M., 2011. A randomized controlled trial of the effects of mindfulness practice on medical student stress levels.*Medical Education 45* (4), 381–388.

Wells, D., Miller, M., Tobacyk, J., & Clanton, R. (2002). Using a psycho-educational approach to increase the self-esteem of adolescents at high risk for dropping out. *Adolescence, 37(146)*, 431-434.

What is Depression | Depression, Anxiety & Stress Test. (2015). Retrieved from https://www.depression-anxiety-stress-test.org/depression/what-is- depression.html

Wood, M.M., Brendtro, L.K., Fecser, F.A., & Nichols, P. (1999). *Psychoeducation: An idea whose time has come*. Reston, Virginia: Council for Children with Behavioral Disorders.

Woolery, A., Myers, H., Sternlieb, B., & Zeltzer, L. (2004). A yoga intervention for youngadults with elevated symptoms of depression. *Alternative therapies in health and medicine*, *10*(2), 60-63.

Yazdani, M., Rezaei, S., & Pahlavanzadeh, S. (2010). The effectiveness of stress management training program on depression, anxiety, and stress of the nursing students. *Iranian journal of nursing and midwifery research*, 15(4), 208-15.

Zhaleh, N., Zarbakhsh, M., & Faramarzi, M. (2014). Effectiveness of Rational-Emotive Behavior Therapy on the Level of Depression among Female Adolescents. *J. Appl. Environ. Biol. Sci*, 4(4), 102-107.

A PSYCHOEDUCATIONAL APPROACH TO IMPROVING THE MENTAL HEALTH OF COLLEGE STUDENTS

ISBN: 978-93-91768-98-0

About Author

Dr. Sindu Padmanabhan
Research and Development Centre
Bharathiar University, Coimbatore – 641046 Tamil Nadu, India

Dr. Sindu Padmanabhan was a Ph.D Research Scholar at Research and Development Centre, Bharathiar University, Coimbatore- 640146 Tamil Nadu, India. She is a highly skilled researcher in health psychology with experience in educational institutions and organizations and a strong interest in health and cognitive psychology. She has attended and presented her research at various national and international conferences, seminars and workshops. Dr. Sindhu published many research papers in national and international level reputed journals and book chapters in books published by renowned publishers.

Bhumi Publishing

ISBN 978-93-91768-98-0
9 789391 768980