EFFECT OF MINDFULNESS-BASED STRESS REDUCTION (MBSR) INTERVENTION ON PERCEIVED STRESS, MINDFULNESS, SELF-REGULATION AND PSYCHOLOGICAL WELL-BEING OF INSTITUTIONALIZED ORPHANS

A

Thesis

Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

Psychology

By

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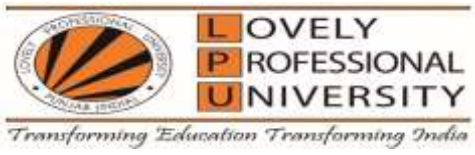

LPU, Phagwara

LOVELY PROFESSIONAL UNIVERSITY, PUNJAB (2023)

DECLARATION

I, hereby declared that the presented work in the thesis entitled **"Effect of Mindfulness Based Stress Reduction (MBSR) Intervention on Perceived Stress, Mindfulness, Self-Regulation and Psychological Well- Being of Institutionalized Orphans"** in fulfilment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision of **Prof. Manish Kumar Verma** working as Professor in the **Department of Psychology** of Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

Name of the scholar: Ms. Taniya Raina
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CERTIFICATE

This is to certify that the work reported in the Ph.D. thesis entitled **"Effect of Mindfulness Based Stress Reduction (MBSR) Intervention on Perceived Stress, Mindfulness, Self-Regulation and Psychological Well- Being of Institutionalized Orphans"** submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the **Department of Psychology** is a research work carried out **Ms. Taniya Raina, 41800600**, is bonafide record of her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

Name of supervisor: Dr. Manish Kumar Verma
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ABSTRACT

Parents are the child's primary providers, their main source of support, and their saviours, but regrettably, many children must live without them since they are either deceased or are unable to care for them; these people are referred to as “orphans.” According to UNICEF, (2006) report, India has nearly 55 million orphan children between the ages of 0 and 12, and the number continues to rise at an alarming rate. The population of orphans has increased tremendously in the last decade due to so many reasons. Furthermore, the trend of institutionalizing them is quickly spreading throughout society, which previously had its own traditional rehabilitation and care/support mechanisms. Trauma of losing a parent has the greatest impact on a child's psychology during the adolescent stage of life and, as a result, has long-lasting implications on how that person will live in the future. Along with the pain and loss that come with parental loss, they also have to deal with the additional stressors that follows their parents' passing. As adolescence is a period of development and change in multiple domains, being without a parent and being institutionalized adds to the stress and may have a cascading effect on the well-being & personality of the orphan. Thus, there is a need to investigate into the well-being of these children. Therefore, interventions that help adolescents to cope with stress and be fully aware of themselves and their emotions- interventions that act as a personal resource and can help adolescents forget about the worries of the past and pressures of the future and be fully present in this moment and make the best out of it- may prove to be beneficial. The present study thus aims to examine the effectiveness of a mindfulness-based stress reduction (MBSR) intervention in alleviating perceived stress and fostering psychological well-being, self-regulation, and mindfulness among institutionalized orphans.

The objective of the present research were to examine the effects of a mindfulness-based stress reduction (MBSR) intervention on perceived stress, mindfulness, self-regulation, and psychological well-being in institutionalized orphans; to examine correlations between all the study variables with each other; to investigate the parallel mediating effect of mindfulness and self-regulation amidst perceived stress and psychological well-being; and to study the differences among the male and female institutionalized orphans with regard to their perceived stress, mindfulness, self-regulation, and psychological wellbeing.

In the current investigation, all the institutionalized orphans high on perceived stress, aged 10-14 years, residing in governmental & non-governmental orphanages in Jammu and

Kathua districts of Jammu division (J&K UT, India), were the sample of the study. For assessing the perceived stress of the sample, a 10-item perceived stress scale developed by Cohen et al. (1994) was used; to assess mindfulness of the sample, a 15-item mindfulness attention awareness scale developed by Brown & Ryan (2009) was used; to assess self-regulation, a 36-item adolescent self-regulatory inventory as developed by Moilanen (2007) was used; and to assess psychological well-being of the sample, a 50-item scale measuring 5 dimensions of psychological wellbeing i.e., life satisfaction, efficiency, sociability, mental health, and interpersonal relations, as developed by Sisodia & Choudhary (2012), was used. For collecting socio-demographic information and evaluating the weeks' worth of minutes each participant spent engaging in mindfulness practices at their leisure, a demographic scale & weekly meditation form was prepared and used respectively.

T-test (independent sample &paired sample t-test), correlation analysis and regression through SPSS AMOS mediation analysis were the statistical techniques employed for computing data for the present Quazi-experimental pre-post with control group design study.

The findings of the study revealed that there were no significant changes to be found in Perceived stress, Mindfulness, Self-Regulation with its types (short-term & long-term) & well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations) at baseline or pre-test phase among institutionalized orphans although there were significant changes between experimental and control group in Perceived stress, Mindfulness, Self-Regulation with its types (short-term & long-term) & Psychological well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations) at post-test phase among institutionalized orphans signifying that the difference between both the groups was due to the intervention that was implemented between pre and post assessment.It was also found that mindfulness, self-regulation, and psychological well-being all three had a positive and significant correlation with one another, stating that as one increases, there is an increase in the other variables as well, and perceived stress had a negative and significant correlation with mindfulness, self-regulation, and psychological well-being, which signifies that as the level of perceived stress increases, there is a decline in mindfulness, self-regulation and psychological well-being among institutionalized orphans high on perceived stress. Also, both mindfulness and self-regulation partially mediated the relationship between perceived stress and psychological well-being, and there was an insignificant difference to be found among male

and female institutionalized orphans on perceived stress, mindfulness, self-regulation and its types (short-term & long-term), and psychological well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations).

The current investigation provides insights into the efficacy of mindfulness-based stress reduction as an intervention to deal with the stress level experienced by institutionalized orphans and help them enhance their well-being, mindfulness, and self-regulation. It is suggested that the government can play an important part in regulating and supervising the circumstances of child care in orphanages, ensuring its residents' safety, well-being, and correct growth. With the intention of identifying mental health issues among orphanage children early, the government may hire psychologists, counsellors, and other health professionals. Wardens, teachers, and guardians should all receive training from counsellors and child psychologists in orphanages to assist not only the orphans and vulnerable children, but also the instructors and carers who are caring for these children. All schools and orphanages should have a child guidance counsellor. Training in mindfulness develops into a habit that doesn't require further time or effort after it has been learned and adopted into daily life. When a teenager regularly practises mindfulness, what started as a conscious effort during training can eventually become an effortless ability that benefits them in many areas of life.

Keywords: Mindfulness-Based Stress Reduction, Interventional Study, Perceived Stress, Mindfulness, Self-Regulation, Psychological well-being, Institutionalized Orphans.

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Taniya Raina

Ph.D. Scholar

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Acronyms Description

t	Student's 't' statistics
MBSR	Mindfulness-Based Stress Reduction
p	Probability value
N	Number of participants
S.D	Standard Deviation
M	Mean Value
$\mathbf{x^2}$	Chi-Square
S.E.M	Standard Error of Mean
r	Pearson's Correlation Coefficient
$\boldsymbol{\eta^2}$	Eta Square
b	Estimates
P.S	Perceived Stress
M	Mindfulness
S.R	Self-Regulation
S.T(S. R)	Short- term Self- Regulation
L.T(S. R)	Long-term Self-Regulation
P.W.B	Psychological Well-Being
S(I)	Satisfaction
E(II)	Efficiency
SO(III)	Sociability
M.H(IV)	Mental Health
I.R(V)	Interpersonal- Relations

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1. INTRODUCTION

1.1 Rationale of the Study:

Adolescent development has been regarded for many years as a stage and time of development with notable changes and challenges. It is viewed as a critical period manifesting various physical, psychological, cognitive, social, and emotional development which has its effect on adolescents' relationship with his/her peers and parents or significant others in their lives. These developmental experiences and changes increase the likelihood that teenagers will have to make several difficult life decisions that may cause them stress and confusion (Compas, 1987; Pathak et al., 2011).The well-being of adolescents may be threatened by stressful life events, such as major events and everyday hassles. An estimated 25% of adolescents will experience at least one significant stressor during their lifetime, such as witnessing a traumatic event or losing a loved one(Gembeck & Skinner, 2010). Loss of a parent is one of the hardest losses anyone can experience at any stage in his/her life, but the trauma of losing a parent has maximum effect on the psychology of a child during adolescent stage of life and thus, has long term effects on the future conduct of one's life. They need to deal with not only the grief& loss that accompany parental loss but also the additional stress that follows their parents' death(Nabunya & Ssewamala, 2014). Scholarly articles across the world have mentioned that loss of a parent results in wide range of emotional, behavioural, physical, and psychosocial problems among teenagers. The mental health of bereaved teenagers worsens, along with their aggression and self-harm risk (Guzzo & Gobbi, 2021; O'Keefe, 2021; Raza et al., 2008). As adolescence is a period of development and change in multiple domains, being without parent and being institutionalized adds to the stress and may have a cascading effect on the well-being & personality of the orphan.

Orphans are the one whose parents have died or otherwise are not able or willing to look after them. India has approximately 55 million orphan children falling under the age group of 0-12 years according to UNICEF (2006) report, and the number keeps growing at an alarming rate day by day as cited in (Naqshbandi et al., 2012). Furthermore, the trend of institutionalizing them is quickly spreading throughout society, which previously had its own traditional rehabilitation and care/support mechanisms (Naqshbandi et al., 2012). This shift from traditional joint family system

to a two-member nuclear family has led to institutionalizing orphans to be the first step into their rehabilitation. In the absence of parents and grandparents to care for the children, they become wards of the state, which provides for their care, housing, and education; in some cases, orphanages are the only source of support for the bereaved children (Bhat et al., 2015). Although, the main objective of orphanages is to meet physiological needs such as safe housing, food, and clothing, little attention is devoted to the well-being and overall personality development of these children. Orphanages are thought to have an unfavourable impact on an individual's personal life in the long run, with no or little evidence that they are useful. It has been demonstrated beyond a shadow of a doubt, backed up by scholarly articles, that orphanages are not safe havens when it comes to the psychological well-being of the child (Alem, 2020; Bansal, 2019; Dar et al., 2015; Meena, 2020; Okawa et al., 2011). Loss of a parent combined with placement in an orphanage can be stressful for an adolescent, impeding their overall development. Therefore, interventions that help adolescents cope with stress and be fully aware of themselves and their emotions can prove to be beneficial. Several studies have shown mindfulness-based trainings to be effective in reducing stress, work related burnout, perceived stress, and in promoting psychological well-being, coping strategies, and self-regulation among both clinical and non-clinical populations(Gbeddy, 2021; Sadeghi et al., 2020; Nahang et al., 2020; Nasiri et al., 2020).“Mindfulness is a meditation-based attention training wherein one learns to focus attention in the present moment and without judgement”(Kabat-Zinn, 1994).As defined by Black et al., (2009),“It is the conscious act of managing one's attention by observing one's thoughts, emotions, and physical state”. Stated simply, mindfulness is moment to moment consciousness. In the year 1979, Kabat-Zinn developed “MBSR,” which as a technique has its origin in mindfulness meditation. This is a technique that helps people become more aware of their surroundings while also assisting them in observing the scenario in a non-judgmental manner to generate consciousness of their experiences, which may be used to reduce stress (Kabat-Zinn, 1994). MBSR has been used for the treatment of depression & rumination (Zhang et al., 2019), glycaemia control among diabetic patients (Armani Kian et al., 2018), anxiety, and perceived stress (González et al., 2018). However, in India, comparatively fewer studies have been done to ease perceived stress and promote psychological well-being, self-regulation, and mindfulness in orphan adolescents who are institutionalized. Therefore, this study is a way forward to assess the effectiveness

of MBSR in alleviating perceived stress and fostering psychological well-being, self-regulation, and mindfulness among institutionalized orphans.

1.2 Orphans

Parents are the primary caregivers and chiefly the prime support system and saviours for the child but sadly thousands of children have to live their lives without them due to either being dead or unable to provide for their children, such segment of the population are termed as orphans. With reference to defining who is an orphan nowadays, the term "orphan" is causing some degree of confusion. Being an orphan in a developed country means that one parent has passed away& the other has not. “In the perspective of the AIDS pandemic, an orphan is characterized as someone who has lost both parents (a double orphan), but also someone who has lost a father but has a mother who is still alive or vice-versa”(Myovela, 2012). According to UNICEF children aged less than 18 years who have lost one or both of their parents due to any reason of death are defined as orphans (UNICEF, 2012). Those who have lost a father are referred to as “paternal orphans,” “maternal orphans” are those children who have bereaved their mother, and “double orphans” are those who have lost both of their parents. Aside from that, there is another concept known as “social orphan”, which refers to a child who has at least one living parent but is unable to meet the child’s basic needs. Skinner et al. (2006) define an orphan as a child who has lost one or both of his parents due to death or abandonment. According to Skinner and his colleagues, the life of an orphan revolves around three main factors:

- Material problems involve issues relating to basic physiological, safety, and educational needs.
- Emotional problems revolve around basic psychological needs.
- Social problems involve orphans need from its surroundings and society.

1.2.1 *Profile of Orphans:*

Orphans exist in every age and civilization. Worldwide, there are at least 140 million orphaned children that are on the record; however, this figure is much greater (Nar, 2021). Additionally, Asia accounts for at least 60 million orphaned children, which is the highest number of orphans and vulnerable children in the world (UNICEF, 2012). India, being the biggest democracy in the world, has a population of over one hundred

crore people, of which approximately 121 crore are children. As per 2011 census, out of these 121 crore children, 37.24 crore belong to ages 0-14, constituting around 30.76% of the total population. (Ministry of Statistics and Programme Implementation, 2018).Because of India's low adoption rates, only a small percentage of these children find a family. On top of that, there are no specialized adoption agencies in existence in major states & union territories, inclusive of Jammu & Kashmir (UT), as per report published by(Government of India Ministry of Women and Child Development., 2018).According to UNICEF (2006), out of 150 million orphans in the world, approximately 55 million children in the age group of 0-12years are orphan in India (as cited in Naqshbandi et al., 2012). In Jammu & Kashmir, 32 years of internal security concern has left many people dead and countless children orphaned and vulnerable, which has contributed to the alarming increase of orphans in the union territory. A study conducted by KFORD has estimated the number of orphans in J&K to be around 2.14 lakh, with 37% orphaned as a result of the internal security conflict, according to a report submitted to Government of India by (Kashmir Foundation for Organization Research & Development, 2016).

Parental deprivation, lack of attachment during the early years, and lack of personal love and care bring with them various psychological, behavioural, and emotional problems, which have been studied very well in the pioneering work done by Bowlby, (1951). Because of the attachment, love, care, attention, acceptance, discipline, values, warmth, and happiness that it provides for the child's healthy and general growth, the family is the most important aspect of the child's emotional development. The basis through which a child becomes healthy and responsible adult depends a lot on fulfilment of these needs in his/her immediate environment. Orphans, on the other hand, are deprived of these family and parental care and frequently end up on the streets, where they are vulnerable to petty crimes, child trafficking, and labour; others end up in large residential homes such as orphanages, destitute homes, charitable educational institutes, and so on, with minimum or no material, emotional, and psychological resources, resulting in a significant degree of mental imbalance, psychological, behavioural, and emotional problems. The state of being an orphan during the adolescent stage is even more challenging because it is a time when infancy and adulthood are in transition, which requires special attention and protection. It is a period of identity formation, and the need for guidance and support

from family and friends at this stage becomes even more important. Also, as Worden (1996)discusses in his book, there are challenges that develop when bereavement and adolescence occur at the same time, resulting in conflict with adolescent tasks as well as chores related to bereavement.

1.2.2 *Psychological & Emotional Problems of Orphan Children:*

The state of being an orphan is the most vulnerable state to be in the society; it is a state wherein the orphans have experienced repeated abuse, neglect, and dread. As a result, the damage brought on by early, severe stress on the developing neurological system cannot be fully repaired by their new, safe environment (Hughes, 2006). 49 out of 292 children and adolescents had behavioural and emotional issues. It was discovered that emotional and behavioural disorders were substantially correlated with, gender, age group, the reason for admission, the admittance, and the number of years spent in the home. The most prevalent issues included peer issues, emotional issues, hyperactivity, and poor prosocial behaviour (Kaur et al., 2018).According to Chitiyo, because they lack a family's affection and care, orphans and other vulnerable youngsters residing in institutions are mor e likely than others to experience behavioural& psychological issues(Chitiyo et al., 2016). The psychological and social development of adolescent orphans is greatly influenced by their parents' deaths. They have low emotional intelligence and poor life skills such as communication, coping, and decision-making, and they are constantly fearful of the future, leading to feelings of insecurity. They are also hesitant to interact with others at orphanages and schools, which make them, feel lonely. According to a study, one out of every five children and adolescents suffers from a mental health problem, and one out of every ten suffers from serious emotional disturbance (Gupta & Agrawal, 2018).

1.2.3 *Social Problems of Orphan Children:*

Orphans may not be able to expand their relationships with others in the surroundings, such as not being able to establish friendly relationships with others in the institution, because they do not have the opportunity to experience their parents' love. They might develop a defiant demeanour and find it difficult to get along with their housemates and caregivers in the facility, but also with the administration of the school, teachers, and other fellow schoolmates. They consistently act indifferently, which may not be appropriate, and frequently cause others to be bothered by them. According to a paper

done on orphan children in Rwanda by Siaens and colleagues, they found that orphans are less likely to attend school, more likely to face open-door exploitation and abuse, unlikeliest to undergo vaccinations, and in all likelihood to have health deficiencies, providing ample evidence that orphan children are particularly vulnerable socially, emotionally, and psychologically(Siaens et al., 2003).

1.3 Adolescence:

The teenage years are a crucial time in a person's life. “It is the period of transition between dependent childhood and independent adulthood that involves biological, cognitive, and socio-emotional changes” (Hurlock, 1981). Despite the fact that adolescence's age range fluctuates due to civilizing and historical factors, in the United States as well as in many other cultures, the age period usually begins between 10 and 13 years and ends between 18 and 20 years. Adolescence has a wider meaning. It includes mental, social, physical, and emotional maturity. This stage of life differs greatly from both childhood and adulthood. This young individual is no longer a child physically but is not as autonomous and self-reliant as an adult. He or she is continuously in need of adult supervision at some point in time, but aspires to autonomy from parents or carers and inclusion in society as an independent individual. The National Youth Policy defines youth as 13-35 years of age and adolescents as 13-18 years of age. (Ministry of Youth Affairs & Sports, 2011). More than a billion people in the world are between the ages of 10 and 19. India is home to 243 million adolescents, a high number in the world. This is 20 percent of the 1.2 billion adolescents worldwide (UNICEF, 2011).

WHO describes adolescence as “the period in human growth and development that occurs after childhood and before adulthood, from age’s 10to19 years” This stage of development is often categorized into three main phases: early, middle and late adolescence, which corresponds to ages 10-14, 15-17 and 18-19 years, respectively (World Health Organization, 2006). Even though these stages may vary according to individual differences and different cultural, social, and economic factors, they offer a basic framework for understanding adolescent development.

1.3.1 *Developmental Changes in Adolescence:*

G. Stanley Hall, a prominent psychologist in 1904, defined adolescence as a period of “storm and stress.” He used this term because he considered adolescence to be a

period of unavoidable confusion and turbulence that occur during the transition from child to adult. By storm he meant decreased level of self-control, and by stress he meant an increased level of sensitivity (Hall,1904). However, storm and stress are not experienced by all adolescents; there is cultural and individual difference, but they are more common during this stage than during any other period in the lifespan. As mentioned in the paper by Arnett (1999),"The paradox of adolescence is that it can be at once a time of storm and stress and a time of exuberant growth." It is a revolutionary stage characterised by the following physical, social, emotional, cognitive, and psychological changes.

1.3.1.1 Physical/ Biological changes:

Puberty is the end of childhood and is characterized by rapid growth in physical attributes like height and weight, changes in body proportions and form, and sexual maturity. The long, difficult maturation process that starts even before birth includes these major physical changes, which are greatly influenced by hormone activity. The psychological effects of these changes last into adulthood (Papalia et al., 2005). It is common for adolescents to feel uncomfortable or awkward at this time due to physical growth. This physical change can be antecedent of pride or embarrassment among adolescents. It can result in hormonal rush which can aggravate impulsive actions which can perpetuate risk taking behaviours and it has been found that younger boys who are still in the stage of maturation take more risks in comparison to their old counterparts whereas there is also seen to be gender difference among both the gender regarding the experience of stress, girls experience feeling of stress to a greater extent as compared to the boys (Spear, 2000).

1.3.1.2 Cognitive changes:

Adolescents not only change physically; but they do change cognitively in terms of their thought process from concrete thinking to abstract thinking. While some of their thinking may not be mature enough, most of them are efficient of thinking in abstract terms, can plan for their future in a realistic manner, and have sophisticated moral judgements. According to Piaget, "adolescents enter the highest level of cognitive development i.e., formal operations, in which they develop a capacity for abstract thought." They develop a new, more flexible way to manipulate information. "People

in the stage of formal operations can integrate what they have learned in the past with the challenges of the present and make plans for the future" (Papalia et al., 2005).

1.3.1.3 Social changes:

Adolescence is a life period for the development of personal and social identities. It becomes pertinent for the teenager to investigate, push limits, grow independently, and establish an identity. It is a period of identity formation and role diffusion. As mentioned by Erikson(1968), in adolescence the most prime developmental task is to resolve identity crisis versus role confusion, develop their own unique sense of identity, find a social environment in which they belong, and develop meaningful connections (Ragelienė, 2016). Healthy resolutions toward the conflict result in a healthy personality and sense of accomplishment.

1.3.1.4 Psychological changes:

One of the main objectives of psychological development in adolescence is the development of a healthy and stable self-image. Several of the primary issues teenagers can experience at this time, such as peer relationship issues, melancholy, unsafe sex, hazardous or rebellious behaviour, subpar academic achievement, and substance addiction, are associated with low self-worth. Parents and other authority figures can encourage a healthy self-image by modelling it in their own lives and by accepting the adolescent(Hazen et al., 2008).

Due to changes in hormonal environments, altered concepts and ideas about the world, dealing with the burden to live up to expectations from the society and struggle to establish one's identity keeps the adolescents in a constant pressure. It becomes pertinent for adults to supervise and support their developmental process in order for the adolescents to find their identity, values and be independent. Thus, having a conducive atmosphere in which an adolescent's point of view is heard, respected, and unconditional love, care, and support is offered may serve as a protective factor against all the odds that may emerge in its absence. Studies have repeatedly shown that the loss of a parent as a kid and the lack of a warm, caring carer have an impact on depression in childhood and adulthood (Cozolino, 2010). Institutionalized youth may confront distinct obstacles than those nurtured in a typical home.

1.4 Institutional Care:

The word “institution” with reference to children and adolescents is a place where children without families or alternative care are furnished with avenues and facilities to live up to a certain age. Some of these institutions are owned and run by governments, some by non-governmental organizations, and some by private faith-based agencies. Although there is no universally recognized definition of childcare institutions, most of them share the common goal of providing round-the-clock care and protection by paid carers to children who live far from their families. These institutions, in addition to providing necessities in form of food, shelter, and clothes, are equally responsible for addressing physical, psychological, emotional, social, and moral needs of the children or adolescents. It is equally important for these institutions and their caretakers to rehabilitate and socially integrate children for their wholesome development and to make them responsible adults& citizens of the nation. “Orphanages” and “infant homes” are terms often used to address institutions or residential care. According to the American heritage, (2022) an orphanage can be defined as “a public institution for the care and protection of children without parents.” It is a home away from home. Wikipedia, the free encyclopaedia, defines an orphanage as a residential institution dedicated to caring for and providing for orphans- children whose natural parents have died or who are unable to or reluctant to care for them ("Orphanage," 2022).Even though there is no universal definition of childcare institution, certain features do define it:

- Children are raised by caregivers who are paid to take care of them, usually working shifts.
- Unrelated children live together on the same premises or property.
- There is no opportunity for the child to form an emotional attachment to one or two caregivers.
- The care giving institution is distinctly identifiable as a special & separate entity, which makes it isolated from the broader community. Most of these settings have an in-house school along with the hostel, which reduces the opportunities for the inhabitants to interact with the broader society.
- When caring for children, the needs of the organization are usually prioritized before the Child’s, which may lead to impersonal care.

- Even though some institutions have well- resourced and dedicated staff, the role of the family is hard to replace. Studies have shown that institutionalization negatively impacts children's well-being, progress, and chances in life, furthermore posing a great danger of abuse (Lumos, n.d).

In the qualitative study conducted by Disassa &colleagues, a lack of professional compatibility, the children's peculiar behaviour, very low wages that didn't match the current inflation of the market in the country, and concerns about the project's sustainability were some of the qualities of the caregiver in the institution that made it challenging to address the issues of the institutionalized orphans(Disassa & Lamessa, 2021).

Orphans in institutional care are exposed to environments that encourage negativity and low self-image. The entire life adjustment is subjected to many situations and experiments along the road, which can be troublesome or a source of concern, especially if orphanages as institutions utterly fail to provide such settings for living in a home-away-from-home, and it has been reported that not only orphanages fail to provide psychological comfort to the children but also involve inadequate staff with lack of proper training in looking after their psychological needs, in addition to the absence of taking children's perspective while formulating their organizational framework, which fails to address the children's issues constructively(Singh & Jha, 2016). Institutionalized children have a higher rate of cognitive, emotional, psychological, and behavioural issues than children who live with their parents (Bansal, 2019; Meena, 2020).

1.5 Variables:

A variable is defined as something that is susceptible to change. In scientific research, a variable is a measurable quality that shifts or changes throughout the experiment. In my study, there is one independent variable and four dependent variables, which are as follows:

- Independent Variable:

1. Mindfulness-Based Stress Reduction (MBSR)

MBSR is an interventional stress reduction technique which the researcher is using as an independent variable to see its effectiveness on the D.V (Vandagriff, n.d.)

- Dependent Variable:

1) Perceived Stress
2) Mindfulness
3) Self-Regulation
4) Psychological well-being

1.5.1 *Independent variable: Mindfulness-Based Stress Reduction (MBSR):*

The stress reduction technique grounded in the mindful approach was developed in 1979 by (Kabat-Zinn, 1990). Although mindfulness has its roots in the Buddhist tradition, MBSR is a non-religious meditation practise established for pain management (Kabat-Zinn, 1982).The MBSR technique is an intervention technique that is used throughout the world for reducing stress, anxiety, and depression (Hofmann et al., 2010). This is a technique that creates a sense of awareness among people about the situation and helps them to observe the situation in a non-judgmental manner to create consciousness of the experiences that can serve as an effective instrument for reducing stress (Kabat-Zinn, 1994). Formal mindfulness techniques are used in this intervention which includes meditation, yoga, and body scans. In a body scan, various body parts and physical sensations are observed sequentially, starting from the feet and working their way up to the head. Meditation is another part of this technique. In meditation, the primary focus is on breathing and on other perceptions and a state of non-judgmental awareness of thoughts and distractions that flow through the mind. Yoga is included in the therapy to increases attentiveness to body sensations and movements (Sharma & Rush, 2014). Concentrative meditation and mindfulness meditation are the two different styles. In concentrating meditation, focus is maintained on a certain object or image. However, during mindfulness meditation, the focus is steadily switched from one moment to the next. This work is initially completed by concentrating attention on breathing. Later, attention is directed on other mental and physical phenomena, such as thoughts that are influenced by sensations, emotions, perception, and fanaticisms as they enter the mind or body. As a result, with practise, the person may maintain focus on one physical or mental phenomenon until the next one appears. “MBSR is basically based on training that is provided to the individuals to bring attention to emotions, thoughts and appraisals that occur while we are engaged in our daily activities”(Asuero &Banda, 2010). The

typical MBSR programme is a two-month training that teaches people to overcome their instinctive habit of reacting negatively to mental situations. Even though there have been many mindfulness-based interventions, MBSR remains one programme that has been updated and adapted, with the essential attitudes and concepts remaining the same. The major foundations of mindfulness practise comprise of seven attitudinal components as proposed by Kabat-Zin:

- Non-judging: This trait of awareness entails practising unbiased observation of every experience rather than categorising ideas, emotions, or experiences as desirable or terrible, correct or incorrect, but simply noting them in each instant.
- Patience: This component of mindfulness observes things for what they are. It allows things to happen in their own time without rushing it to be somewhat better.
- Beginner's mind: With a sense of wonder, this quality of consciousness sees everything as pristine, as though from the very beginning. It is a feeling that is portrayed by a new- born baby for whom everything seems like a wonder.
- Trust: It emphasizes on the quality of being yourself & understanding what it means to be yourself. When you practise mindfulness, you are learning to take responsibility for who you are and to listen to and trust your own inner voice.
- Non-striving: It refers to not attempting to leave one's present position. There is no clinging to or moving away from whatever arises in the moment when this quality of awareness is present.
- Acceptance: This component of mindfulness practice refers to viewing situation as they are here and now. Allowing things to be as they are helps one to stay present with them rather than trying to change them.
- "Letting go" or "non-attachment": It means not holding on to things that don't serve any purpose (Kabat-Zinn, 1990).

The usefulness of MBSR as a low-cost stress management strategy has been well established over the past 20 years in a range of population groups, including those with chronic pain(Kabat-Zinn, 1982), cancer outpatients (Carlson & Garland, 2005),

neglected male adolescents(Irani, 2020), and healthy older adults(Mallya & Fiocco, 2016).

1.5.1.1 Models explaining the role of mindfulness in psychological functioning:

a- Mindfulness' neurobiological and behavioural effects on self-regulation:

Tang and his colleagues (2016) combined neuroscience with research on prevention and offered a structure for how the effects of mindfulness can be used to help prevent problems(Tang et al., 2016) According to their review, the main way that mindfulness training makes a difference is by making people better at self-regulation (see figure 1.1). The study suggests that mindfulness meditation causes changes in different parts of the brain, like the prefrontal cortex (PFC), anterior cingulate cortex (ACC), insula, etc., which in turn improve functions like attention, emotion regulation, and self-awareness. Together, these improvements improve self-behavioral mechanisms that allow mindfulness to improve self-regulation, which in turn improves health and well-being (Tang et al., 2016).

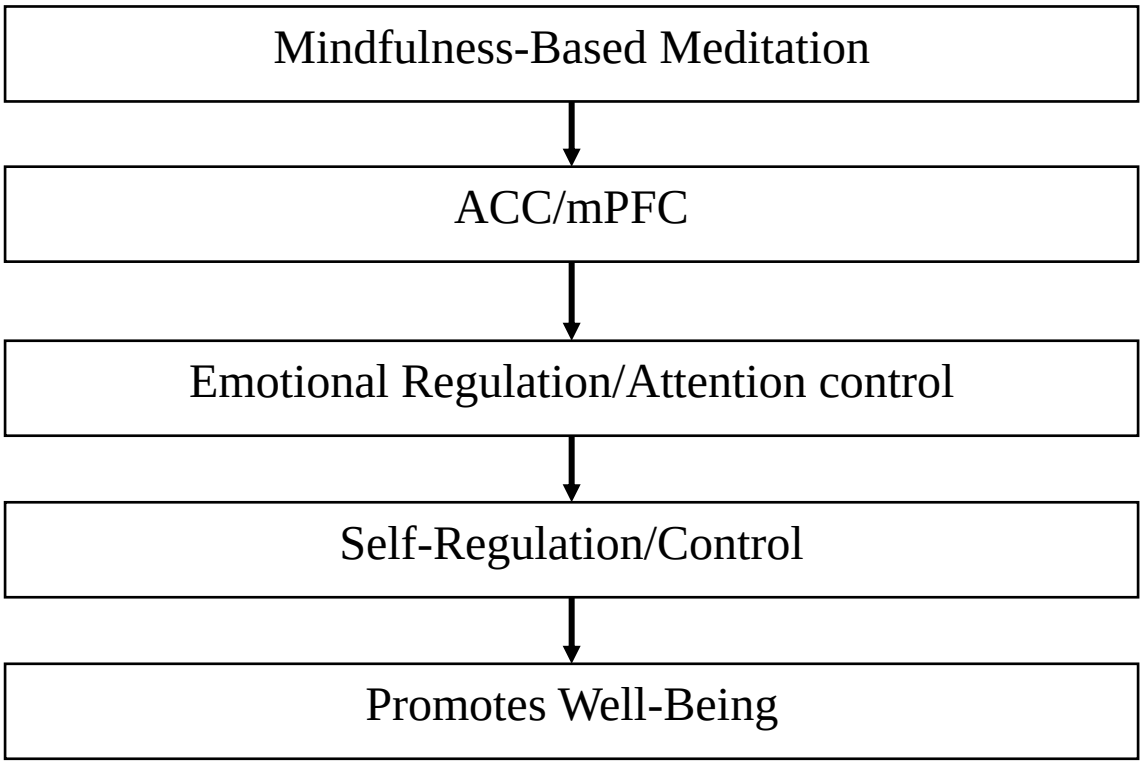


Figure 1.1: Model Showing How Mindfulness Improves Self-Regulation (Tang et al.,2016).

Even though this model was made for adults, a review of the research presented in the next chapter suggests that it may also work for teens. This is because, as we'll see in the next few sections, mindfulness seems to affect the processes of attentional control, self-regulation, and self-awareness in teens. But because this kind of study hasn't been done with teens, we can only speculate about how it might work.

b- The theoretical mechanism of mindfulness proposed by Perry-Parrish et al., (2016):

Parrish et al., (2016) reviewed mindfulness therapies for teenagers and proposed a theoretical mechanism of action. Mindfulness training improves psychological, cognitive, and coping functions. This population's self-regulation improves. Mindfulness increases self-awareness and reduces anxiety, anger reactivity, and emotional issues. According to the model, attention, cognitive flexibility, and impulse control boost cognitive functioning in numerous tasks. Ruminating less and adapting improves coping. These together enhance self-regulation.

1.5.1.2 Conceptual clarity of the variables:

Tang and colleagues in 2015 found that mindfulness-based interventions can change the way the PFC, ACC, and limbic parts of the brain are built (Tang et al., 2015). These areas are in charge of important functions like controlling attention, regulating emotions, and being self-aware, all of which affect self-regulation. A normal teen's prefrontal cortex (PFC) isn't fully developed yet, so it's more likely that he'll have trouble planning his actions when he's upset and may act on impulse instead. If we can introduce mindfulness-based interventions to early adolescents at a time when their prefrontal cortex (PFC) is still developing, there is a good chance that they will have less trouble controlling their emotions and behaviours. This is because mindfulness has been shown to improve PFC functions in adults(Hölzel et al., 2011). That is why this present research studies the improvement in regulation of self, well-being, and mindfulness in addition to alleviating early adolescent stress.

1.5.2 *Dependent variable: Perceived Stress*

"It's not stress that kills us; it is our reaction to it" -Hans Selye

Stress has for a very long time been a crucial issue for research in the area of health science since it is connected to a range of health results and disorders, including cancer, diabetes, cardiovascular disease, asthma, & rheumatoid arthritis. (Boll et al., 2002; Cohen et al., 2007). It has dominated research done in behavioural science as well with various theories explaining and defining stress in its own way. Selye's (1976) systemic stress theory states that the bodily response to stress is termed as "general adaptation syndrome". Appraisal and Coping Theory by Lazarus & Folkman, (1984)defined "stress as a direct interaction between an individual and their environment that strains or depletes coping mechanisms". Stress- Appraisal theory focuses on cognitive processes involved in experiencing and managing stress. It states that the outcome of stress appraisal and coping efforts can vary. Effective coping can lead to reduced stress and improved well-being. Stress occurs when an organism, whether human or animal, fails to respond correctly to emotional or physical threats, whether real or imagined. It's a way of perceiving and dealing with environmental dangers and obstacles. It refers to the threat to a person's bodily or psychological equilibrium, whether it is real or perceived(Chrousos, 1998).The three approaches in which the idea of stress has been evaluated in studies are:

- Social: which focuses on stressors or life events.
- Psychological: which involves evaluating subjective stress assessments and affective reactions.
- Biological: this entails assessing the degree to which the physiological systems responsible for the stress response are activated. (Cohen et al., 1997; Kopp et al., 2010).

The sensations or ideas that a person has about how much stress they are experiencing at a certain moment or during a specific time frame are known as "perceived stress." Perceived stress is influenced by thoughts about how unpredictable and uncontrollable life is, how frequently one must deal with annoying troubles, what degree of change is occurring in one's life, and one's self-assurance in one's ability to overcome challenges, difficulties, or obstacles(Phillips, 2013). Although stress is a normal component of life, it tends to be amplified during significant life changes (Lee et al., 2016).The effects of stress can be seen in the body, cognition, and behaviour. The nervous system's sympathetic system and the anterior pituitary axis may become

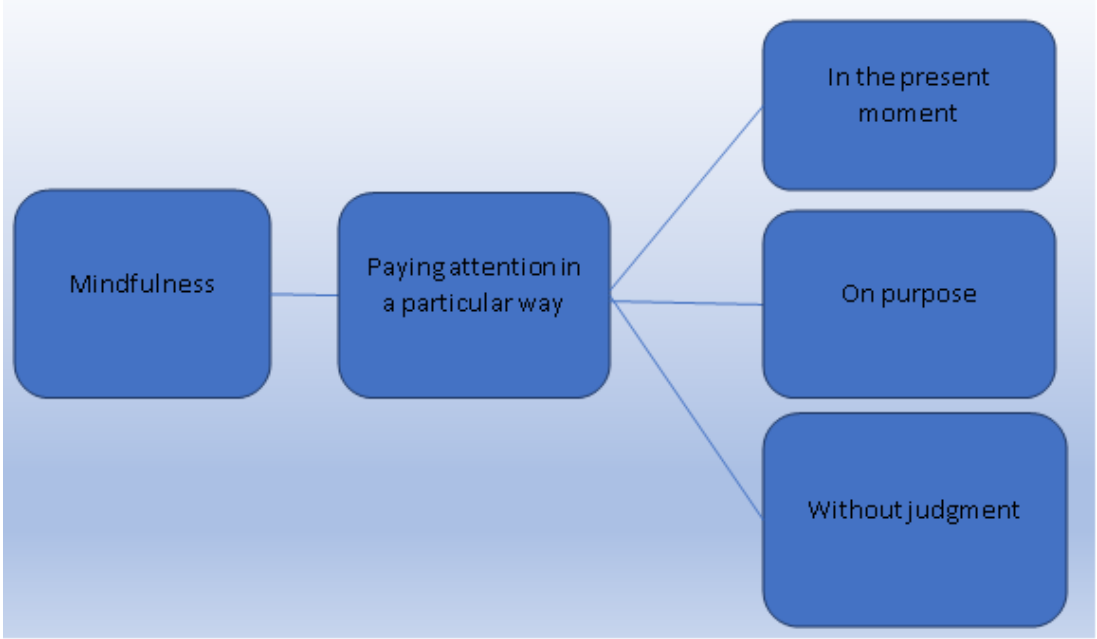
activated as a result of stressful life events., which may then have an impact on the immunological, metabolic, and cardiovascular systems (McEwen, 1998).It affects the mind in the form of lack of concentration, negative thinking, constant worrying and it manifests itself through behaviour in the form of indulgence in risky behaviour, loss of interest, avoidance from peers and relationships, procrastination and so on. Evidence from a normal MBSR course demonstrates that advances in mindfulness arrive before changes in perceived stress, which is consistent with other research that indicates the effects of mindfulness training on mental health outcomes may be mediated by advancements in mindfulness skills(Baer et al., 2012). It has been seen that MBSR course has been effective in reducing stress among retired football players from Iran(Norouzi et al., 2020); adolescents with poorly controlled diabetes (Ellis et al., 2018); with chronic pain and other functional somatic symptoms (Ali et al., 2017); and older adults (Mallya & Fiocco, 2016). Mindfulness has also been reported to act as a buffer against the negative impact of stress on health and wellbeing (J. D. Creswell et al., 2019).

1.5.3 *Mindfulness:*

The word “mindfulness” comes from the Sanskrit word "sati." Sati means "to recollect" and "awareness” (Bodhi, 2011). Mindfulness is how aware one is about what is going around an individual now, and how keen is an individual to know about what is happening inside out in each situation (Modi et al., 2017). In the presence of intention, attention &attitude, mindfulness can result in a transformation in one's outlook, which affects one's response to one's circumstances. In other words, mindfulness can be defined as “paying attention in a particular way on purpose, in the present moment and in a non-judgmental manner” (Kabat-Zinn, 1994).

Figure 1.2:

Demonstrated the definition of mindfulness by John Kabat Zinn



Source:(Kabat-Zinn, 1994).

As the term suggests, being mindful means being focused on the present moment, every emotion and observing every experience (both internal & external), that is, pure attention and observation without adding interpretations or judgements to the experiences and attending the experience as it presents itself in the here and now with objectivity and clarity. Instead of being on "automatic pilot," bringing awareness to current action is the idea behind self-regulating attention. Without a person's knowledge, being in automatic pilot mode can trigger undesirable behaviours of thinking, feeling, and doing. It may be tough to reflect and determine an appropriate reaction once these problematic thinking patterns have been activated (Baer et al., 2006).According to Shapiro et al., (2006) the concept of mindfulness aims to develop the ability to attend and experience every moment consciously with a witness-like attribute.

Bishop et al., (2004) proposed that mindfulness paradigm consists of two components:

- The first element involves self-regulating attention to maintain its focus on present experience, enabling more accurate appraisal of cognitive states in the here-and-now.

- Establishing a specific mindset toward one's current experiences, one that is characterised by tolerance, curiosity, and inclusion, is what the second component implies.

Research on mindfulness meditation therapies has primarily been done on adult populations. Although there have been fewer published research studies, there has been an increase in interest in using mindfulness training with the younger population in recent years. Mindfulness can help people develop skills like better regulation of self, attention, sensibility to understand, analytical skills, and approachability, all of which are important in modern schooling. It helps youngsters become smart, empathetic, and dedicated citizens by preparing them to meet future difficulties (Zenner et al., 2014).Mindfulness is theorized to improve many psycho-social factors including regulation of emotions, behaviour, and cognitive processes (Jimenez et al., 2010). Mindfulness can also have an influence on controlling brain activity (Ludwig & Kabat-Zinn, 2008).It is also believed to have positive influence on reducing maladaptive behaviours (Peters et al., 2011). As well, mindfulness plays a cardinal role in reducing social anxiety and managing stress and depressions among adults (Jazaieri et al., 2012; Kabat-Zinn, 2003).

Mindfulness has several key characteristics as mentioned in a paper by Brown et al., (2007):

- Recognizing and registering both internal sensations (emotions, thoughts, and behavioural intentions) and external occurrences are the first steps in practising mindfulness.
- Second, pre-conceptual information processing underlies mindfulness. People who are in a state of mindfulness are simply seeing what is happening without analysing, reflecting, or judging it.
- Third, attentive awareness is characterised by a present-oriented awareness, in which a person concentrates on the current situation than daydreaming about the past or the future.
- Fourth, the strength of mindfulness varies based on the situation and the person.

According to research on mindfulness and meditation, both clinical and healthy samples show improved psychological health while practising meditation. Both of these review publications demonstrate the efficacy of stress-reducing approach based on mindful consciousness as a treatment for many recurring conditions and problems. It implies that mindfulness training may enhance general coping mechanisms for handling difficulty and disability in everyday life as well as under more extreme conditions of significant disorder or stress(Chiesa & Serretti, 2009; Grossman et al., 2004).

1.5.4 *Self-Regulation:*

One of the fundamental human abilities is self-regulation. It is the capacity to manage one's energy levels, feelings, cognition, and actions in ways that are acceptable and encourage positive results, including wellbeing, fulfilling relationships, and learning. As a result, it serves as the cornerstone for everything else a person accomplishes. It's all about how they handle stress. To acquire this skill, one must possess self-awareness, emotional intelligence, effective sensory filtering, stress-coping skills, interpersonal skills, and the ability to pay attention. (Kalish, 2020). When psychologists use the phrase "self-regulation," they may be referring to one of the two things: behavioural self-regulation or emotional self-regulation. The self-regulatory system applies to these two domains. Behavioural self-regulation is “the ability to act in your long-term best interest, consistent with your deepest values” and emotional self-regulation is the “ability to calm yourself down when you're upset and cheer yourself up when you're down”(Stosny, 2011).

As stated by Andrea L. Bell in one of her blogs at good therapy.org, “self-regulation” simply means “control [of oneself] by oneself.” According to her, someone with good emotional self-regulation can keep their emotions under control. They can control impulsive activities that could exacerbate their problems and cheer themselves up when they're unhappy (Bell, 2016). Thus, it is a state of understanding that an organism tends to achieve to keep their thoughts, emotions, behaviour, and feelings in control with respect to the things happening around one’s own selves.

Efficient mental control of behaviours and emotions, goal-oriented behaviour and the capacity to productively handle emotionally and intellectually taxing situations are aided by self-regulation. Bandura's socio-cognitive theory emphasizes the reciprocal

interaction between cognitive processes, behaviour, and the social environment (Bandura, 1991)which is particularly relevant when considering interventions like MBSR because it focuses on cultivating present-moment awareness, managing emotions, and developing non-judgmental attitudes which further enhance participants' self-efficacy beliefs and contribute to improved self-regulation.

Self-regulation is an important protective characteristic that can prevent teenagers from engaging in risky conduct or help adolescents escape the consequences of risky behaviour (Jessor & Jessor, 1977).According to research, it leads to an improvement in scores of self-regulations (Modi et al., 2018). In a review study, Parrish et al., (2016) explained a theoretical model wherein they came to the conclusion that training in mindfulness boosts coping skills, mental and cognitive function, which in turn improves an adolescent's ability to regulate their behaviour even more. Mindfulness practise enhances psychological functioning by enhancing self-knowledge and reducing apprehensions, anger-related impulsivity, and trouble managing emotions. According to the theory, increased attention, cognitive flexibility, and impulse control lead to an improvement in cognitive performance. All of which leads to increase in self- regulation.

1.5.5 *Psychological Well-Being:*

In yesteryear, concepts like life satisfaction and optimal functioning were used to measure psychological well-being. The second idea became more popular among social scientists. On the face of it, previous studies focused on one's judgement in relation to their state of wellbeing, mood, and the intensity of their positive feelings at the time of their responses(Ryff & Keyes, 1995). When a person feels they are functioning well in areas including self-acceptance, environmental mastery, personal advancement, and pleasant relationships, they are said to be in a state of psychological well-being, which includes a variety of multidimensional traits(Reshma & Manjula, 2016). In later studies, psychological well-being has been redefined in a more complete and structured way, divided into various components as mentioned by Ryff & Keyes, (1995):

- The definition of self-acceptance is having a positive outlook about oneself and our own past even while one is aware of our imperfections.

- Constructive interpersonal relationships emphasise the development and maintenance of warm, rewarding, and trustworthy interpersonal relationships.
- Environmental mastery is the ability to control the environment to fulfil one's own needs, wants, and ideals with a sense of achievement.
- A sense of autonomy is described as the capacity to withstand social pressure to think and act in particular ways.
- Life purpose is a sense of direction and meaning in life. When a person has a goal to be fulfilled in his/her life which adds meaning and direction into his/her life the person is said to be psychologically well.
- Personal growth is defined as a sense of self-improvement and progress over time, as well as making the most of one's abilities and talents. If an individual sees potential within himself/ herself he is psychologically well.

This framework was examined in relation to diverse age, sex, and cultural groups and was shown to be congruent with the eudemonic perspective of happiness. Currently, studies on psychological well-being make substantial use of this theoretical paradigm.

Psychological well-being can be defined as positive mental states like feeling happy, feeling worth, satisfaction etc. are some of the important facets of being psychologically healthy. One who has not got any kind of illness is supposed to be a healthy individual, this formula sometimes equates to psychological well-being, as one who is free from anxiety, stress, depression, or any other psychological ailment is referred as psychologically sound, but by going through recent trends, many researchers have pointed out that psychological well-being is presence of positiveness in an individual, positive feelings towards others and towards our own selves. The psychological well-being of adolescents at this stage in their life is important for an overall development of their personality because unmet needs at this stage may have a deleterious effect on their mental health during their adult lives. Mindfulness acts as a protective factor against undesirable events that life throws at an individual, which can worsen their well-being. It has been reported through various studies that mindfulness-based trainings do help individuals show improvements in their well-being(Sadeghi et al., 2020; Yobas et al., 2016; Omidi et al., 2017).

1.6 Operational Definition:

Orphans: In this study the term 'Orphans' indicates a child aged 10-14 years, falling under the early adolescence period of human development, having lost both or one of his or her parents.

Institutionalized: The terms "institution" and "orphanage" will be used interchangeably in this study; which stands for a place or residence devoted to the care & rearing of children who have lost their parents.

Perceived stress: The degree to which orphans appraise their situation beyond their capability to handle it. Thus, "perceived stress" is defined as a feeling or thought of how much stress an individual has at a given point in time. According to Cohen et al., (1995)"stress is a process that puts strain on an organism's capacity for adaptation, resulting in psychological and biological changes that could increase the risk of illness."

Mindfulness: Mindfulness is defined as paying more attention to and being more aware of one's current experience or the present moment (Miller, 2022).

Self-regulation: Self-regulation is "the degree to which adolescents are able to activate, monitor, maintain, inhibit, and adapt their emotions, thoughts, attention, and behaviour" (Moilanen, 2007). It entails both short-term and long-term:

- Impulse, concentration, and emotional control in the pursuit of immediate goals are all aspects of short-term self-regulation.
- Long-term self-regulation entails assessing orphan adolescent's efforts to control impulse, attention, and emotional regulation over a longer period to achieve longer-term goals.

Psychological Well-being: Psychological well-being in the context of orphan's means being psychologically healthy, free from anxiety, distress and which is measured on the following components:

- The act of satisfaction or feeling satisfied is referred to as "life satisfaction," which includes the satisfaction of a need or want, the confinement and enjoyment of one's possessions, and the mental calm brought on by satisfying one's needs or desires.

- Efficiency: It is described as a comparison of output or results to what could be achieved with the same number of resources; the attribute of being favourable or being able to make a difference.
- Sociability: It is a person's proclivity or inclination to be sociable or associate with one another. Being sociable is a state as well as an act or an experience of being outgoing.
- Mental stability is a word that can be used to describe both the absence of a mental disorder and a state of cognitive or emotional well-being. When a person has strong mental health, they are able to handle everyday situations, think clearly, act responsibly, overcome challenges, and maintain positive interpersonal relationships.
- Interpersonal relationships: It is a bond between two or more people that can be temporary or long-term. This link could be formed through infatuated love, romance and affection; regular business meetings; or other sorts of social commitment (Sisodia & Choudhary, 2012).

1.7 Chapter of the Thesis:

The five chapters of the current study are listed below.

Chapter One: The Introduction chapter establishes the context of the topic in hand, its need, and its significance. It highlights the problems associated with being an orphan at an adolescent age residing in an institution, provides a conceptual understanding of the meaning and concept of all the variables under study, and establishes the effect of MBSR as an intervention to be helpful in reducing perceived stress and fostering psychological well-being, self-regulation, and mindfulness among institutionalized orphans.

Chapter Two: “Review of Literature” presents the significant studies done on imparting mindfulness interventions to various clinical & nonclinical populations and discusses the current understanding of the problems of institutionalized adolescent orphans. It is based on chronological order. It incorporates the research gap of the review of literature and the objectives and hypotheses of the present research.

Chapter Three: It includes the research methodology adopted to conduct the present study.

Chapter Four: It presents the analytical tests of each of the study hypotheses, as well as the results of the statistical testing of the hypotheses and their consequences.

Chapter Five: It highlights the study's findings, recommendations, limitations, and directions for future research.

2 REVIEW OF LITERATURE

The literature review is an important part of a study that provides the background, relevant understanding, and justification for undertaking research. It is a writing process that involves published information or understanding of a topic gathered by recognised scholars and researchers. It would then be correct to define it as the selection of sources on a subject that provide information, arguments, facts, or evidence assembled from a specific point of view to achieve particular goals or express particular viewpoints on how the subject should be examined, and assessment of these sources in light of the research project (Hart, 1998). It can be said that if introduction of the paper is the gateway, then the review of literature is the gate pass for the kind of research to be undertaken. In general, the literature review's objectives are to:

- establish the context of the project
- identify its background and
- provide insights into previous work (Blaxter et al., 2010).

Mindfulness based stress reduction is an interventional technique that is being used largely as a non-religious meditation practise throughout the world for reducing stress, anxiety & depression among different age groups including both clinical as well as non-clinical or healthy population. In the present study, the literature review is confined to the work related to the remedial impacts of MBSR in India & abroad, the effect of MBSR intervention on perceived stress, mindfulness, self-regulation & psychological well-being. This chapter is giving a general survey of the incidence & prevalence of psychological, emotional & behavioural problems among orphans along with literature on institutionalized orphans and their well-being, this chapter gives a closer look at studies that probed MBSR and other mindful based interventions to perceived stress, mindfulness, self-regulation & psychological well-being separately.

Figure 2.1:

An empirical view of review of related literature.

2.1 Orphans &their Psychological Health:

According to the World Health Organization (2006),psychological health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." The psychological wellbeing of orphans is a significant & a complex area of study that looks into the mental health & emotional adjustment of orphan adolescents & children. Orphanhood can result from various circumstances, including parental death, abandonment, or parents being unable to care for their children due to factors like poverty, war, or natural disasters. These experiences can have profound effects on the psychological development of affected individual.

A study done by (Meena, 2020) with the aim of analysing the difference in the temperament and behavioural issues between orphan teenagers and teenagers residing with their parents within the age group of 13 to 19 years found that there was a substantial difference in temperament and behavioural difficulties between these two

groups of teenagers. Another study discovered that psychological illness is extremely common among orphaned children with results suggesting that Separation Anxiety Disorder was the most prevalent psychiatric morbidity, with depression and other phobias also making up a significant portion of the overall psychiatric morbidity(Dar et al., 2015).

A study using a convergent parallel mixed method approach to look into the psychosocial issues of orphan children demonstrated that orphan children were exposed to a wide range of psychological, economic, and social issues, as well as harmful behaviours, all of which had a significant impact on their education and overall well-being (Alem, 2020). Further (Hakeem et al., 2018) showed a positive significant correlation between behavioural and emotional disorders among orphaned youth. Additionally (Bansal, 2019) looked into the impact of a child's living situation (in an orphanage or not) and gender on their sense of self-worth, well-being, EQ, power to bounce back, and optimism and found that where a person lived had an impact on their self-worth, emotional quotient, well-being and its components, hope and its sub-components. Adolescents who live with their parents score higher on measures of total subjective well-being and its sub-components, have higher self-esteem, and are more emotionally sophisticated.

Orphan children require a variety of mental, emotional, and social support, from basic necessities like food and healthcare to more long-term solutions like education, psychosocial support, and self-efficacy for them to advance their psychological well-being. (Okawa et al., 2011) found positive relationships between perceived social support & psychological well-being of AIDS orphan. Also, special person and siblings can be useful support systems for orphans suffering from AIDS, helping them to advance their psychological well-being.

A research by(Kaur et al., 2018) investigated the behavioural and emotional issues in other vulnerable children & orphans living in institutional homes through a cross-sectional descriptive study. 292 orphans and OVCA aged 4 -17 years in institutional homes of city Vizag (India) were the samples used in the study. The study's results indicated that 49 out of 292 children and adolescents had behavioural and emotional issues. The study revealed that gender, the age of entrance, the reason a person entered the institute, and the length of time a person lived there were all found to be strongly related to emotional and behavioural difficulties. The most frequent issues were discovered to be conduct issues, followed by peer issues, emotional issues, hyperactivity, and low prosocial behaviour.

Orphans in institutional care are exposed to environments that encourage negativity and low self-image.(Naqshbandi et al., 2012) conducted a mixed-method design study to examine the impact of institutionalization on orphans & its effect on orphan's psychology. Result of the study revealed conflict to be a major factor for the increment in the figure of orphans & that institutionalization does have a negative impact on orphan's psychology. There have been papers trying to analyse the ill-effects early institutionalization has on the child's physical, hormonal, cognition & emotional development and concluded that institutionalized children exhibit delays and maladaptation in a variety of developmental categories, but not all children are impacted equally or to the same degree depending upon various physical & temperamental characteristics that might be important in determining if early institutional raising causes permanent damage(IJzendoorn et al., 2011). Further (Tottenham et al., 2010) suggested that long-term institutionalization is linked to abnormally high amygdala volumes, issues with emotional control and higher level of anxiety. Another limitation that institutionalised orphans face is the disparity between the number of care givers and the number of orphans who are in need of support (Hartini, 2019).A review study done by (Isnaeni et al., 2021)the objective of which was to compile the findings from therapies for emotional and behavioural issues in vulnerable children, who reside in institutional homes found that children and teenagers who are orphans frequently struggle with emotional and behavioural issues like despair, anxiety, low esteem, emotions of wrath, and distress. Difficulties in functioning, satisfaction with life, the likelihood of suicide, and early symptoms of psychosis are some additional issues that came up during the review. There were six different types of clinical trials used by the researcher to help orphan adolescents with emotional and behavioural issues~~,~~ although cognitive therapy, educational assistance, complementary medicine, and alternative therapies were the most often used interventions. The study done by (Gupta & Agrawal, 2018) concludes that conventional pranayama and breathing exercises proves beneficial in reducing tensions, frustrations and pressures from life.

To conclude psychological well-being is a crucial component for having a meaningful life. It helps individuals to deal with painful emotions. Orphans are unfortunately amongst the disadvantaged set of individuals who have to withstand emotional distress, anxiety, low self-esteem, isolation, grief which has a negative effect on their psychological well-being. Orphans who are institutionalised are equally challenged by the mental health difficulty which makes them amongst the most vulnerable group of

our society. Many research papers have shown positive correlation between behavioural and emotional challenges experienced by orphan children and youth and its negative effect on their psychological well-being. Further investigations on Institutionalised orphans have revealed that institutionalisation registers a negative impact on few of them physically, cognitively and emotionally. Many researchers with the aim of finding the processes which can be helpful in providing effective support in easing the emotional challenges and increase the psychological well-being of orphaned children have found breathing exercises and other conventional methods to be effective.

2.2 Mindfulness-Based Stress Reduction & Perceived Stress:

The term “Perceived stress” is defined as the sensations or ideas that a person has about how much stress they are experiencing at a certain moment or during a specific time frame(Phillips, 2013). The following section deals with effectiveness of MBSR on perceived stress among various populations ranging from vulnerable children, adolescents& adults with chronic pain to healthy older adults. Ali et al., (2017)conducted a study to find out if MBSR programme is feasible and has any potential benefits for treating adolescents with widespread chronic pain and other functional somatic symptoms. An 8-week MBSR programme was completed by three cohorts of individuals. At baseline, 8 weeks later, and 12 weeks later, child and parent-completed assessments were gathered. Following the programme, parents and subjects were interviewed to determine its feasibility. Result revealed that at 8 weeks, mean scores on the FDI, FIQR/SIQR and MASC2 were significantly different from baseline. At 12 weeks, both the child's and parent's MASC2 scores, as well as the Perceived Stress Scale scores, had greatly improved. In the FDI and FIQR/SIQR, more time spent practising at home was linked to better results. Qualitative interviews revealed that participants and their parents attributed the MBSR class's social support to its positive impact on everyday activities, pain, & anxiety. González et al., (2018)investigated research with the purpose to gauge the effect of MBSR technique for adolescent outpatient residing in Cordoba’s mental health facility, Spain. 101 teenagers between the ages of 13 and 16 who were getting psychiatric or psychological care made up the study's sample. They were assessed twice for psychological symptoms such as state-trait anxiety, self-esteem, perceived stress, and mindfulness. Result of the randomized clinical trial revealed that in comparison to the

treatment as usual (TAU) group, statistically significant reduction in anxiety was seen in another group. Although, no difference was found between groups on the other scores, but MBSR intervention had a greater influence on the MBSR+TAU group than TAU group, especially in reducing symptoms of depression, anxiety, perceived stress and paranoia. The use of MBSR as a therapy for teenagers in mental health facilities has been suggested.

Further Bennett & Dorjee, (2016)did a study the goal of which was to see if the regular MBSR technique can be an admissible and helpful technique for a batch of teenagers who wanted to reduce their stress levels.23 mixed-gender sixth-form students were the sample of this study. With a 3-month follow-up, the study used a nonrandomized controlled design. DAAS-21 AND WHO-5 self-report standardized questionnaires were used to assess psychological stress and well-being respectively. According to the results of this feasibility pilot study, the stress reduction course through mindfulness proved to be a practical intervention that may be provided in a setting with high attendance and retention rates to self-selected batch of students in their teens. Another study conducted bySibinga et al., (2016)tested a modified mindfulness-based stress reduction (MBSR) programme to lessen the harmful effect of trauma and agony amidst 300 5^{th}-8^{th} grade students belonging to low-income, minority middle school assigned randomly to adapted stress reduction programme or education regarding health programmes by grade. The severity of posttraumatic symptoms, somatisation, sorrow, unfavourable emotion, poor coping, thinking negatively of the past, and aggression towards self were all considerably lower in MBSR students than in healthy topic programme. These data back up the theory that mindfulness teaching enhances psychological functioning, reduces stress-related symptoms, and reduces the harmful impacts of stress in at risk middle school children.

A systematic review conducted by Sharma & Rush, (2014)with the aim to see if MBSR could be an operational alternative to traditional stress management in nonclinical groups. Data on articles where MBSR was used as a technique for stress reduction from 2009 to 2014 were gathered through different online databases. Result indicated that in 16 of the 17 articles qualifying the search parameter, favourable improvements in psychological or physiological outcomes were observed with respect to stress. Even with the limitations of lower sample sizes, variable results, and the lack of a randomised controlled design in all study, MBSR appears to be a favourable

stress management programme. Baer et al., (2012)investigated in which participants underwent an 8-week course in mindfulness-based stress reduction where they were monitored for changes in self-reported mindfulness and perceived stress on a weekly basis (MBSR). In an academic medical facility, MBSR was offered to 87 persons who were experiencing high levels of stress as a result of a chronic illness, chronic pain, and other life conditions. They conducted weekly self-report tests of their felt stress and mindfulness. It was believed that considerable changes in mindfulness skills in the subjects happened first before large changes in stress reduction were observed. The study's findings showed that between pre- and post-treatment, mindfulness abilities and perceived stress both underwent considerable change. Sasikumar & Latheef, (2017) indicated that MBSR as an intervention was effective in lessening perceived stress, depression and improving mindfulness among forty type 2 diabetic sample participants.(Chen et al., 2022)developed a programme of MBSR for military cadets. 30 cadets were randomly assigned to control group & 30 were assigned to experimental group who participated in an8-week MBSR-MC programme. The efficacy of the programme was assessed on mindfulness and perceived stress of the cadet and the result revealed that cadets who received the MBSR-MC training had significant increase in awareness, non-reactivity and non-judgment subscales of mindfulness questionnaire and displayed decreased level of perceived stress.

Perceived stress and managing it can be an ever-going process for a person. Prolonged stress has been found to be a worldwide health problem(Schneiderman et al., 2005) and finding of viable methods for managing it has led to understanding mindfulness as a concept, as an acquired skill and as a practice and studying its effect on anxiety and perceived stress, researches are not limited to the MBSR technique developed by (Kabat-Zinn, 1990) but many have also analyzed the effect of different mindfulness based practices on percieved stress.

Erbe & Lohrmann, (2015)conducted a review to assess the current research reporting on the effect of mindfulness meditation on increasing adolescents' wellbeing and reducing stress. Literature search was undertaken using PubMed, Google Scholar, ERIC, Psych Central, and reference list searches. The findings suggest that MM may have a positive impact on the specified outcomes in both clinical and educational settings. It is advised that schools implement MM as a component of a coordinated health programme. A systematic review findings by Zenner et al., (2014) shows that

school-based mindfulness approach holds promise that overall mindfulness-based therapy in children and adolescents helps in enhancing cognitive function and stress resilience. However, the wide range of instruments employed, the variation of implementation and exercises, and the variability of research samples all call for a comprehensive and distinct analysis of the data.

Gbeddy, (2021)did a study the purpose of which was to see if a free online Mindfulness application (App) may help psychiatric nurses residing in United States minimise work-related stress and burnout. To answer the clinical question, a qualitative quasi-experimental methodology was used. Fourteen nurses volunteered to take part at first, and 13 of them completed the Maslach Burnout Inventory before and after the intervention (MBI). The MBI consisted of 22 questionnaire items that covered a wide range of work-related stress and burnout experiences. Result revealed that there was a decrease in burnout post intervention and participants found this app to be useful in reducing stress and job burnout. In another study conducted by Fung et al., (2019) to evaluate the impact of a mindful school-based intervention on adolescents' emotional control and mental health found that the intervention was successful in alleviating perceived stress and internalising difficulties, as well as enhancing emotion regulation outcomes, among low-income ethnic minority kids Furthermore, mindfulness training was linked to improved emotion control and a reduction in mental health symptoms.

In a clinical trial undertaken by Nasiri et al., (2020)with the objective to assess the outcome of a mindfulness-based intervention on perception of stress and disease of76 patients with acute coronary syndrome. Result of the trial signified that after the intervention & one-month follow-up the treatment group’s mean level on perceived stress was statistically significantly lower in comparison to the control group. Moreover, the group that received the treatment, it’s mean score on the disease perception was significantly higher than the other group. Thus, the study suggested that these types of interventions are useful for patients with acute coronary syndrome in lowering perceived stress and correcting the impression of disease. Another study done by **(**Charoensukmongkol, 2014) to look into the effects mindfulness meditation has on people's self-reported emotional intelligence, general self-efficacy, and felt stress in general. Findings revealed that practicing mindfulness meditation was positively connected to emotional intelligence and negatively associated with

perceived stress. Furthermore, Emotional intelligence mediated the relationship of mindfulness meditation and general self-efficacy.

To conclude, MBSR and other mindfulness-based interventions have proved to show promising results as an intervention programme in reducing and preventing the relapse of stress and how it is perceived. MBSR is a practice-based technique which when done consistently gets developed as a skill first and eventually leads to reduction in perceived stress with the passage of time. Many MBSR based researches have been done on adolescents, school going children, healthy adults, adults with chronic diseases and negative correlation have been established with perceived stress. Not many studies could be found on the effect of MBSR as an intervention on orphans which my paper aims to probe.

2.3 Mindfulness-Based Stress Reduction & Psychological Well-being:

When a person feels they are functioning well in areas including self-acceptance, environmental mastery, personal advancement, and pleasant relationships, they are said to be in a state of psychological well-being, which includes a variety of multidimensional traits (Reshma & Manjula, 2016).A study was conducted by (Saraswaty et al., 2020) to investigate if mindfulness-based stress reduction therapy can potentially enhance the institutionalised orphan's care givers psychological well-being. The outcomes showed a rising trend in the respondents' psychological well-being scores following treatment. It was suggested that MBSR considerably enhanced the mental health of the caregiver of institutionalised orphans. A quazi-experimental study set out to ascertain the impact of mindfulness-based stress reduction video-based treatment on enhancing the psychological well-being of 15 moms of stunted children revealed that for moms of children with developmental delays, mindfulness-based stress reduction therapy improved their psychological well-being and self-efficacy (Nurhidayah et al., 2022). Another study assessed the impact of stress reduction technique based on mindfulness on the enhancement of affect control and well-being in military personal's family members suffering from PTSD. Result revealed that the overall score in psychological well-being showed remarkable change amidst pre-post-test (Omidi et al., 2017)**.**Another researcher delved an intervention study with the aims to gauge the level of distress based on past trauma and evaluate the viability and early efficacy of a two-month yoga intervention in easing traumatic signs, psychological and behavioural problems in Haitian orphans.76 children aged 7-

17 years residing in 2 orphanages in Haiti were assigned to the Yoga intervention or Dance control group and a non-randomized wait-list control group at random. Pre- and post-treatment ratings were compared using a within-subject approach. The acceptance of the YI was assessed using a post-treatment questionnaire on the yoga experience. While taking either 8 weeks of yogic or dance sessions may have reduced trauma-related symptoms and emotional-behavioral issues, this finding was insignificant. Nevertheless, respondents expressed satisfaction with the yoga programme and an improvement in well-being. The results showed that yoga intervention had a significant effect on symptoms related to trauma (Culver et al., 2015).

Further research in evaluating the impact stress reduction technique based on mindfulness have in helping lessen anxious traits, pressure, depression and in improving well-being amongst 40 male retired players from Iran indicated that MBSR intervention helped former Iranian football players experience less stress, apprehensions, and depression while also improving their mental health. **(**Norouzi et al., 2020) **.** Research investigating the accessibility,feasibility and usefulness of the mindfulness-based stress reduction programme consisting of 8 weekly sessions of approximately 40 mins duration in school setting situated in India has confirmed that the program helps in reducing biological and psychological manifestations of stress, stress produced through academics, peer interaction pressure by enhancing well-being & also enhances academic self-concept among school going students(Anand & Sharma., 2011).In order to fill the disparity in literary articles another study conducted byCollard et al., (2008) explored the association between mindfulness & subjective well-being, this study contemplated on various experiential data to assist on the hypothesis that mindful awareness mediates the positive outcome of cognitive therapy and stress- reduction techniques based on mindfulness. 15 students aged 24-56 years from counselling centres in London University participated in this test-retest design research with repeated measures. The study's findings showed that, while participants' positive emotions were stable, their negative emotions considerably diminished as a result of the MBCT training. The MBCT programme increased participant life satisfaction, but it fell short of statistical significance. The study provided more evidence on how mindfulness might improve wellbeing

(Modi et al., 2018**)**did an experimental study having a matched control group to look at the efficacy of training mindfully on 100 school going adolescent students' psychological well-being, self-esteem, and self-control. Before and after the intervention, comparisons within and between groups were made using appropriate inferential statistics. According to the findings, mindfulness training was successful in improving regulation of self, well-being, self-confidence, and mindful awareness in all four of these areas by a statistically significant amount. Given its preventive and cost-effective qualities, mindfulness training is advocated for consideration at the school level since it can help kids develop into empathising and socially mature individuals. A systematic review which seeks to offer a comprehensive overview of school-based mindfulness-based interventions (MBIs) done only with early school-aged adolescents suggests that MBIs program is a good choice for early adolescents as a preventive measure for enhancement of their well-being McKeering & Hwang, (2019)**.**There is a positive assossiation between mindfulness and subjective well being as per the study done by Xu et al., (2016) wherein they examined the moderating and mediating effects of tolerance for others and oneself on the link between mindful awareness and well-being. The Tolerance Scale, Five-Facet Mindfulness Questionnaire, Index of Well-Being and Self-Acceptance Questionnaire were completed by 301 university students in Beijing, aged 18 to 34. The findings demonstrated that only self-acceptance significantly moderated the beneficial relationship between mindfulness and subjective well-being. Tolerance acted as a moderator.

Another study investigated theassociation between mindful awareness, well-being and psychological discomfort among 717 students. This study also aimed to find whether self-control and autonomy serve as a mediator between the relationship amidst mindfulness, psychological well-being & psychological discomfort. After analysing the data through path analysis, results revealed a favourable association between mindfulness and psychological well-being and an inverse correlation between mindfulness and distress. Self-control mediated the association of mindfulness and well-being, whereas autonomy served as a mediator in the relationship between mindful awareness and both well-being and distress Parto & Besharat, (2011)**.**Mon et al., (2016)delved a study to see how beneficial a mindfulness program is on the psychological behaviours of teenagers in Myanmar who have a parent who has HIV

and other risk factors. Result revealed that the mindfulness intervention improved conduct behaviours & emotional problems significantly after 6 months but had no effect on social behaviour. After adjusted for family type, age of the child, gender and orphan status, the intervention had a substantial effect.

Sadeghi et al., (2020)executed a quazi experimental pre-post-test study with control group and 3 month follow up study to look into how well-being, coping mechanisms, and family functioning are affected by mindfulness training in breast cancer patients. Convenience sampling was used to choose 29 breast cancer patients, who were then randomly split into 2 groups. Findings indicated that, in women with breast cancer, mindfulness training significantly improved coping mechanisms, family function, and psychological well-being.

In sum, a key component of psychological wellbeing has been mindfulness. The relationship between it and psychological health is more entwined than it is related. Given that practicing mindfulness results in improved positivity, a stronger feeling of coherence, a higher quality of life, and more fulfilling relationships, thus makes it obvious that mindfulness and psychological well-being are closely related. MBSR interventions done in various research studies have found positive relation between acquired mindfulness and psychological well-being. It becomes pertinent to understand the dynamics of a child who is orphaned and awaits a different destiny than children with parents. Few will be cared by their extended family members while few might get adopted and some will spend their life in orphanages. Orphanages though act as a substitute to parental roles but due to its structured character, high caregiver-to-child ratio, and frequent caregiver changes, institutional upbringing necessarily deprives youngsters of reciprocal contacts with reliable caregivers thus exposing them to developmental delays in a variety of areas, including their physical, socioemotional, and cognitive growth(St. Petersburg-USA Orphanage Research Team, 2008), thereby a need was felt to explore the role MBSR as a technique can play in empowering the institutionalised orphans in making them self-sufficient in improving their psychological well-being and their quality of life.

2.4 Mindfulness-Based Stress Reduction & Self-Regulation:

As stated by Andrea L. Bell in one of her blogs at goodtherapy.org, “self-regulation” simply means “control [of oneself] by oneself.” According to her, someone with good

emotional self-regulation can keep their emotions under control. They can control impulsive activities that could exacerbate their problems and cheer themselves up when they're unhappy (Bell, 2016).A study by (Akpan, 2022) aimed to ascertain the impact of emotional skills, specifically self-awareness, self-regulation, and social skills, on the social adjustment of adolescent orphans residing in Akwa Ibom State, Nigeria, government-run orphanages and found that orphaned adolescent children are more susceptible and may have a difficult time adjusting socially if they lack basic emotional life skills. Another study conducted on Romanian orphans to look at the issues they had with attention and self-control after ten years of having spent at least nine months of severe deprivation in institutions in their early lives found that the length of time spent in a facility before adoption and attention issues at age of 10.5 years were found to be significantly positively correlated. The 10.5 year old Romanian orphanage children's attention and self-regulation issues when compared to those of two other groups of kids namely 1st group set of early adoptive Romanian children who were adopted before the age of four months and 2nd group set of Canadian-born, unadopted children displayed that children in the Romanian orphanage displayed greater difficulty than kids in the other groups on all measures of attention and self-regulation, with the exception of activity level(Audet,2003)

Self-regulation has been highlighted by the National Research Council and Institute of Medicine (2009) as a risk factor for the maximum mental, emotional, and behavioural disorders as well as a protective factor for kids who are more susceptible to externalizing and internalizing illnesses. Self-control is therefore essential for success in practically every area of life (as cited in Bockmann & Yu, 2023)Three cerebral areas linked to the processes of emotional regulation, the medial prefrontal (PFC), orbit frontal (OFC), and anterior cingulate (ACC) cortices, have been demonstrated to be activated more during mindfulness practices (Chambers et al., 2009; Etkin et al., 2011).Use of emotion components of emotional intelligence scale & regulation mediated the association between mindful awareness and stress. It is suggested that integrating mindfulness in one’s life can help reduce perceived stress and can help in emotional regulation Bao et al., (2015)**.** According to the study conducted by (Razza et al., 2013)it is suggested that Mindful Yoga which is one of the components of MBSR technique enhances the self regulation skills of School going children.

Sibinga et al., (2013) explored the role of MBSR program among forty-four urban male youth with an aim of identifying association of MBSR with diminished psychological symptoms & enhanced coping. Pre & post follow up design was adopted with an active control group. Result indicated that MBSR enhanced self-regulation, improved psychological symptoms & increased coping. Another study conducted by (Anila & Dhanalakshmi, 2016) on randomly chosen 300 teenage students between the ages of 15 and 18 wherein the experimental group of students received MBSR for 8 weeks, while the control group did not get the intervention, and then a post-test was administered. The findings show that MBSR is helpful for developing self-control, lowering anxiety, and boosting academic performance in adolescent pupils. MBSR-C has shown a significant positive impact on emotional self-regulation and emotional resilience issues in children with ADHD who face the most significant challenge in their emotions management. (Heshmati et al., 2016).In the pre-post experimental investigation conducted by Irani, (2020)data was analysed by using repeated measure anova on the impact of MBSR on thirty neglected male teenagers' from Iran with respect to apprehensions about others, transformation in attitude, and conclusiveness. Results indicated that MBSR was effective in lowering fear of being negatively evaluated, in changing perspective on life, and in introducing assertiveness. Another pre-post-test conducted on thirty-four participants with adult-onset diabetes and having high level of schooling, examined the impact of a therapy established on mindful techniques that reduces stress on issues which affect regulation & glycaemic regulation in type 2 diabetes demonstrated that MBSR had a positive impact on patients' glycaemic management and emotion regulation issues Tavakoli &Zahrani, (2018).

Bockmann & Yu, (2022)underwent a literature search of eighteen research studies that were carried between 2010 & 2021 from various online databases to examine the usefulness of interventions based on mindfulness techniques to promote self-regulation of young children in their early developmental stages. The research under evaluation sought to determine the impact of these interventions on the growth of behavioural & psychological self-regulation. Results suggest that teaching youngsters and their caregiver’s mindfulness practises can help them develop their capacity for self-regulation and can foster social and emotional environments that support this development. Nahang et al., (2020)delved a quazi-experimental study with pre- post

research design with control group to see how helpful child-based mindfulness is for unsupervised children's emotional self-regulation and psychological resilience. 40 unsupervised children aged 9-13 years were part of this study picked through convenience sampling and randomly assigned to control and experimental group. The intervention was based on 60-minute session undertaken for three months. Data study showed that, in unsupervised children, mindfulness has a positive impact on psychological toughness and emotional self-regulation. In an experimental study Viglas & Perlman, (2018)probed at how a mindfulness-based programme affected hyperactivity, prosocial behaviour, and self-regulation. Randomly, 127 kids between the ages of 4-6 were split into groups of two: the Mindfulness & the Control Group. According to the study's findings, at Time 2, children in the treatment group had improved regulation of self statistically more than those in the control group and were also more prosocial and less hyperactive. Additionally, it emphasised the advantages of programmes build on mindful approach in pre-schools and showed how successful they are for students who struggle in these areas. To understand how Mindful Yoga exercises affected coping skills, self-esteem, and self-regulation, on school-aged girls' and also to understand whether there was a connection between the intervention's dosage and the results. White, (2012) gathered data from two public schools, girls in the fourth and fifth grades were randomly assigned to treatment and wait-list control groups. The intervention group met once a week for an hour for 2 months and had daily homework of ten minutes. Result indicated that in both groups, self-esteem and self-control improved. The intervention group was more likely to report higher stress assessment and higher coping frequency. Homework was responsible for 7% of the variation in reported stress. Another research was done to find out the effect of mindfulness-based technique on self-regulation, mindfulness, and stress levels on jailed teenagers, the study was done on 32 adolescent convicts who were jailed in two units of a juvenile hall in the San Francisco Bay Area. Study measures were obtained pre-test and post-test. Using paired t-tests, the findings showed decline in stress and an improvement in healthy regulation of self however the self-reported mindfulness did not alter significantly.

Armani Kian et al., (2018)delved a study whereinsixty sufferers having type 2 diabetes were enrolled in a trial at hospital in Iran to examine the impact of a MBSR intervention on emotion regulation, general mental health, and anxiety, depression,

and blood sugar control in patients with adult - onset diabetes. As two indicators of glycaemic management, fasting plasma glucose and HbA1c were assessed. Assessments showed that MBSR significantly improved patients with diabetes' emotional wellness and glycaemic control at baseline, eight weeks later, and three months later Himelstein et al., (2012)**.**

A study by Frankenfeld & Trautwein, (2021)tried to figure out the outcome a mobile app that offers meditation classes based on mindfulness technique has on part-time university students. These students' perception of stress, self-control & life satisfaction with mindfulness & cognitive assessment as prospective mediators was studied. 64 students were assigned in a random manner to either a control wait-list conditions or a mobile meditation intervention based on mindful techniques during the semester. Result revealed a notable reduction in perceived stress as well as a remarkable improvement in regulation of self, mindfulness, and cognitive reappraisal with insignificant improvement in life satisfaction. In addition, this study also increased mindfulness mediated & facilitated changes in self-regulation. Overall, the Smartphone application improved mental health and coping capacities in a healthy population.

To summarize, Self-regulation is a crucial ability that aids in improved social integration.Its been observed that regular practice of techniques incorporated in structured MBSR program and other mindfulness exercises helps in increasing the mental muscle memory of an individual thus leading to improvement in one's self regulation.Self-control can be behavioral, cognitive, or a combination of both and cognitive self-regulation frequently takes precedence over behavioral self-regulation because changing our thinking is frequently a crucial first step in altering our behaviour. Researchers have highlighted the problem of self-regulation in orphans & institutionalised orphans while other have researched on the effect MBSR techniques have on self-regulation among adolescents and school going children, therefore the current study focuses on understanding the effect of MBSR on institutionalised orphans as the existing researches on them is in dearth.

2.5 Mindfulness-Based Stress Reduction& Mindfulness:

Mindfulness is being Mindful of each moment that we live, being aware of our thoughts and feelings without any judgements attached to them. In other words,

mindfulness can be defined as “paying attention in a particular way on purpose, in the present moment and in a non-judgmental manner” (Kabat-Zinn, 1994).Mental health is an important priority worldwide especially among adolescents, there is a mounting evidence of onset of majority of mental illness during adolsecence and thus early therapies can significantly reduce the likelihood of full-blown mental disease in future (Piguet, 2021).Dunning et al., (2022) conducted a meta-analysis review that evaluates the current condition of Mindfulness Based Programs for young people. The author looked for published and unpublished RCTs of MBPs including children and young adults in various online databases. Review’s finding revealed MBPs as successful in reducing negative and social behaviour, anxiety/stress, attention, executive functioning, and passive controls. MBPs were more successful than active controls at lowering anxiety/stress and enhancing mindfulness.

With regular practice MBSR has proven to increase mindfulness and many studies have established this observation. A study conducted on 56 teenagers who matched the inclusion criteria for MBSR and sub threshold depression were randomly assigned to the MBSR group or the control group in order to evaluate the impact of customised, simplified mindfulness-based stress reduction on their psychological health. A validated evaluation tool, including the BDI-II, MAAS, and RRS, was used to measure intervention’s effectiveness at before, after and three months after intervention. A repeated measure ANOVA was adopted to study the data. The findings showed that the treatment group significantly outperformed the control group with regards to their reduced levels of depression and ruminative response scale scores. MBSR simultaneously increased mindfulness levels, and the impact maintained for three months following the intervention Zhang et al., (2019)**.**Another study where 20 teens were investigated and evaluated to determine the effects of mindfulness group therapy showed that over the course of the baseline period, there were no notable changes but after joining the sessions, the teens' self-compassion and mindfulness ratings dramatically improved, while their perceptions of stress and despair significantly decreased Edwards et al., (2014)**.**

Modi et al., (2017)explored a study with the aim to assess the viability, suitability, and utility of mindful intervention in improving early adolescent cognitive functioning (10-14 years). In this study, 20 adolescents were separated into an experimental group that received exposure to a 10-session, 45-minute per week mindfulness programme.

The study's preliminary findings were encouraging, offering some insight into how mindfulness training may affect cognitive abilities like sustained attention, focused attention, verbal working memory, phonemic fluency, sustained attention and verbal memory. A significant improvement statistically in cognitive functions was seen both across the two groups and within the experimental group, according to an independent & paired t-test. Further a study established that mindfulness may be especially beneficial for young people who engage in maladaptive cognitive processes like ruminating. Empirical research is increasingly supporting clinical experience with mindfulness-based treatments, such as MBCT, to optimise the successful treatment of kids with a variety of problematic symptoms**(**Parrish et al., 2016**).**Another researchsought to see whether participants in the MBSR intervention who had higher characteristic mindfulness would have better intellectual benefits. This randomised control trial was specifically conducted to determine whether pre-intervention trait mindfulness had a moderating effect on the effects of stress reduction group versus the control group on a variety of psychological resilience, interpersonal well-being, and mental health indicators. The study involved 32 university students. Results showed that MBSR treatment had impact on various outcomes, like enhanced dispositional mindfulness, empathy, & well-being as compared to a control group. However, compared to controls, MBSR individuals with greater pre-treatment phases of mindful consciousness showed greater increases in mindfulness, personal well-being, understanding about others, and optimism as well as larger declines in felt pressure following one year after the intervention (Shapiro et al., 2011**).**

Mindfulness based interventions when exercised regularly show beneficial results in improving the overall psychological health. The benefits of frequent mindfulness practice include better sleep, higher self-awareness, and an improvement in overall satisfaction in life(Baer et al., 2004; Fredrickson et al., 2008; Kabat-Zinn, 2003).An ethnographic case study conducted by Oronoz, (2018) was done to determine whether an intervention based on mindful techniques as a component of a scholastic programme for children found on Mexican streets could assist them in overcoming their socio-emotional barriers to education and daily stressors, enabling them to fully benefit from the programmes made available to them. At this facility for boys only, two groups of youngsters in their teens were evaluated. A mindfulness-based curriculum was offered to one group for eight weeks, while the control group

remained with their regular programming. The study's design was qualitative, and some of the techniques used included participant observation, regular field note-taking on everyday activities, interviews with young people and their instructors, and daily diary entries. Results showed that participants believed this practise helped them overcome their impulsive behaviours and enabled them to respond more consciously. They believed they had discovered a method for controlling their frequently foggy minds through these workouts. A year later, a follow-up visit revealed that most people had not maintained their mindfulness practise, but some had kept up their breathing exercises. Their retention of the curriculum had essentially helped in improved decision-making. Another study which placed daily mindfulness meditation practise at the heart of the intervention was conducted by Burke, (2010)on children and adolescents by using MBSR/MBCT models in order to give a preliminary appraisal of the current research foundation of mindfulness-based techniques. The fifteen studies under consideration are ground-breaking and, overall, show prudence. They offer a solid basis of evidence for the viability and acceptability of mindfulness-based approaches, which incorporate fundamental practises of mindfulness meditation, with kids and teenagers. The current study base is, however, constrained by a paucity of empirical data on the effectiveness of therapy with these younger individuals.

A joint report by United Nations Programme on HIV/AIDS (Unaids, 2004) stated that "Local, national, and international organizations are struggling to meet the needs of more than 143 million children worldwide who experienced the death of a parent and the millions more who have been abandoned by both parents" as cited in (Kathryn et al., 2011).Numerous researches have shown that early exposure to potentially traumatic experiences is linked to anxiety, sadness, and antisocial behaviour patterns that persist into adulthood(Koenig et al., 2004; Matshalaga & Powell, 2002). According to the study's findings, PTSD and other co morbid conditions, primarily anxiety and depression, are quite common in youngsters in orphan care facilities. Lower primary participants scored substantially higher on trauma than their upper primary counterparts. This necessitates therapies for this population's PTSD(Nduku et al., 2022).

Fischer, (2017)conducted a systematic assessment of the literature to acquire a thorough grasp of how mindfulness techniques are utilised with kids who have

experienced trauma or are actively dealing with it. The research produced two major categories: adult intervention and intervention for children and adolescents. These two fundamental categories gave rise to three themes: the Mind Body Skills Group Intervention, the Other Mindfulness Practice Interventions, and Stress Reduction based on mindful approach. Result indicated that when it comes to children, adolescents, and adults who have experienced trauma, mindfulness practise in many forms have been demonstrated to have favourable outcomes. This study implies that mindfulness meditation as an intervention should be investigated further.

In sum, MBSR- Mindfulness based stress reduction program introduced by(Kabat-Zinn, 1990)entails a series of mindfulness techniques which are found to be helpful in managing stress, promoting day to day focus, improved well-being and increased self-regulation by means of increasing the level of mindfulness of an individual. Many research papers have tested the efficacy of MBSR on various population groups ranging from children to adolescents to senior citizens and have not only limited the research to study its effect on an individual's psychological health but also its effect on improving the physical health of the individuals. Numerous studies stated above have confirmed that MBSR is an effective intervention and brings the best results when the various techniques are consistently practiced as it helps in enhancing the potential of the participants to develop their ability of staying observant and thus mindful. However, in order to understand its effect on adolescent institutionalised orphans more research is required to understand its viability as a successful intervention program.

2.6 Statement of Research Problem:

Over the past few decades studies examining the impact of life related stress on human well-being and health have revealed connections between psychological stress and risks to both mental and physical well-being(Cohen et al., 2007).

According to (Byrne et al., 2007)adolescence is characterized by stress and pressure, as it signifies the shift from childhood to adulthood. Researchers are progressively gaining insights into the reasons of growing prevalence of various mental disorders such as anxiety and mood disorders, psychosis eating disorders, personality disorders, and substance abuse among adolescents and attribute them to disturbances in the typical developmental changes that takes place in the adolescent brain (Paus et al.,

2009).With so many physical, psychological, cognitive, social, and emotional developments happening all at the same time during adolescence, the ability to control a stressor becomes another critical evaluation(Rudolph et al., 1995; Skinner, 1996). Certain stressors, such as academic challenges, are believed to be more open to modification. Consequently, adolescents respond to these stressors in a more systematic manner, utilizing proactive strategies, persistence, diligence, and analytical problem-solving. On the other hand, when stressors are perceived as less controllable or irreversible, such as the loss of a parent, adolescents tend to retreat, employ cognitive distraction, seek social assistance, or adopt other approaches to alleviate their emotional distress. As anticipated, the evaluations made by adolescents regarding their stress levels serve as important indicators of their mental well-being (Compas et al., 2001).

The loss of parent which is irreversible makes it an emotionally challenging proposition and has a lasting psychological effect. A study by (Stikkelbroek et al., 2016) "shows that family bereavement has a clinically significant, medium sized effect on the increase of internalizing problems within 2 years in comparison to non-bereaved adolescents"

According to UNICEF, "almost 10,000 children become orphans every day. According to internationally accepted figures, there are at least 140 million orphans in the world. Given the fact that there is so much compelling evidence showing that there are millions of more orphans not included in official statistics, there is no doubt that this number is actually much higher" (NAR, 2020).

Orphanhood inherently brings forth susceptibilities related to mental health, and being placed under institutional care amplifies the likelihood of developing mental disorders and other psychosocial challenges. Institutional environments possess the capacity to introduce substantial mental health risks, with the predominant effects often centered on psychological concerns(Ali & Shaffie, 2021).Although separation constitutes a heightened source of stress, the cessation of care giving and the absence of specific attachments prove disadvantageous for children in institutional settings (Nader, 2007).Like many studies, the study by (Saraswat, 2017)substantiate that parental loss places children at the forefront of diverse psychological challenges. These encompass stress, depression, decreased emotional connection, longing for parental presence, fluctuations in emotional equilibrium, reduced self-esteem, feelings of isolation, a

sense of helplessness, and a lack of direction in life. These psychological struggles are commonly experienced by orphaned and vulnerable children.

As per study conducted by (Suryaningsih et al., 2022) adolescents living in orphanages would benefit from acquiring effective coping strategies and improved methods to address their challenges. Study suggests that the integration of lessons imparted during their time in orphanage will prove to be advantageous for them.

Recently, mindfulness meditation (MM) initiatives have been introduced in clinical and school environments, aiming to alleviate stress and enhance the well-being of adolescents. Study by (Erbe & Lohrmann, 2015)showed promising results of MM programs and its positive effect on the identified outcomes in both clinical and school settings. Inclusion of guidelines for schools to integrate mindfulness meditation as part of a Coordinated School Health Program is recommended in the said research. The study conducted by (Anand& Sharma., 2011) presents compelling proof of the MBSR program's efficacy in notably diminishing both physiological and emotional signs of stress. (World Health Organization, 2017)suggests adolescence to be the stage which is deemed as one of the optimal timeframes for intervention, given the neuroplasticity evident in adolescence and the opportunity to step in at a time when the majority of mental health conditions and risky behaviours have their onset.

While the majority of research and academic writing is focussed on studying the effect of MBSR on school going children or adolescents, not many studies could be found which have applied MBSR as an intervention on institutionalized adolescent orphans. Thus, through this study, we are trying to understand & find out the efficacy of MBSR, which is a structured program in improving their mental health needs and if there is any mediating effect of mindfulness & self-regulation on their perceived stress and overall well-being.

As per (World Health Organization, 2001) “More than 40% of countries have no mental health policy and over 30% have no mental health programme. Over 90% of countries have no mental health policy that includes children and adolescents. Moreover, health plans frequently do not cover mental and behavioural disorders at the same level as other illnesses, creating significant economic difficulties for patients and their families. And so, the suffering continues, and the difficulties grow.” Adding to the above apathy towards the lack of policies for mental and behavioural disorders,

the challenge in developing nations also is addressing and providing care for individuals with mental and behavioral disorders due to scarcity of adequately trained experts and healthcare professionals.

Thus, to address the psychological challenges faced by institutionalized orphans, an intervention that can be learnt and later applied on oneself without any external help holds merit. At its core, MBSR encourages participants to take an active role in their well-being journey. Through a combination of meditation techniques, gentle movement, and mindful awareness exercises, individuals are guided to engage in self-reflection and self-regulation. This self-directed approach allows participants to tailor their practice to their unique needs and preferences. In embracing MBSR as a self-driven practice, individuals embark on a transformative journey of self-discovery and stress reduction. As they become more attuned to their thoughts and feelings, they gain the tools to navigate life's challenges with greater clarity and composure. Through consistent self-guided engagement, MBSR empowers individuals to embark on a path of personal growth and well-being.

“Adolescent mental health has assumed importance due to continuities between adolescent and adult psychopathology” (Chattopadhyay & Mukhopadhyay, 2010).The commonly accepted belief is that the personality, characteristics, and behavioral inclinations of an adult are shaped during their childhood and adolescence (Thomas & J, 1991). This present research holds significance, as its findings can contribute to the formulation of public health policies, institution specific policies, introduction of MBSR as a scholastic program given the established and cost-effective nature of MBSR and thereby helping in shaping the youth which later can become active contributors to the society.

2.7 Research Gap:

Children & teens are among the most vulnerable individuals who suffer the consequences of global crises and conflicts. War, invasion, natural disasters, chronic poverty, diseases, and other factors all contribute to the orphanage of many children. According UNICEF “children younger than 18 years old whose one or both parents have succumbed due to any reason of death are defined as orphans”. (UNICEF, 2012). According to a report submitted by Kashmir Foundation for Organization Research and Development (KFORD) to Government of India in 2016, there were 201

orphanages presently running in the Union territory of J&K. As total number of children enrolled in these orphanages is 12,716 and the number is growing on a rapid pace. Adding to the woes the pandemic of covid 19 has also increased the number of orphans in India including the state of Jammu & Kashmir. As per data recorded in "Bal Swaraj" portal set up by National Commission For Protection of Child Rights (NCPCR)the number of children orphaned during the pandemic period is 1.53 lakhs in India with 660 orphaned in Jammu and Kashmir(*Lancet Article Sophisticated Trickery Intended To Create Panic Among Citizens, Divorced From Truth And Ground Reality*, n.d.)There is a need to investigate into the well-being of these children. Although government is determined about the timely implementation of different policies, the need of some psychological intervention can never be overlooked. By going through the existing literature, it has been found that:

- Much attention of implementing mindfulness-based interventions has been done mostly outside India, more in Iran, Spain, United states, Tehran etc. and even though some studies have implemented mindfulness-based interventions in India and on school going healthy adolescents (Anand & Sharma., 2011; Modi et al., 2018) there is a significant gap when it comes to finding out psychological personal protective factors that can lessen the impact of being an orphan and enhance well-being. The present study makes the use of MBSR as an intervention for the well-being of orphan adolescents in India and more specifically in Jammu and Kashmir.

- After reviewing relevant literature both in Indian & foreign context, it has been found that most of the studies undertaken on orphans and vulnerable children are exploratory or descriptive in nature(Bansal, 2019; Kaur et al., 2018; Okawa et al., 2011)whereas in the present study researcher used an intervention program of MBSR techniques which has been found in reducing perceived stress & improving regulation of self, mindfulness and well-being of the institutionalized orphans.

- Despite the fact that numerous studies have demonstrated the beneficial impact of interventions based on mindful techniques on psychological well-being and an inversely proportional relationship with perceived stress, it is unknown what underlying process is responsible for these effects. Thus, this present study tries to find out the possible parallel mediating efficacy of mindfulness and self-regulation

in relation between perceived stress and psychological wellbeing after receiving MBSR intervention.

- Previous studies show mindfulness techniques to be promising in addressing these issues. Mindfulness based training and interventions have shown to aid with stress, sadness, anxiety, behavioural and rage symptoms, as well as enhancing emotional-regulation, psycho physiological and emotional well-being and used in clinical population like those suffering from chronic pain(Ali et al., 2017; Tavakoli &Zahrani, 2018) to non-clinical population like healthy adults and school going students(Anand& Sharma., 2011; Edwards et al., 2014; Sharma & Rush, 2014). Present study examines the effect of MBSR intervention on Perceived stress, Mindfulness, Self-Regulation & Psychological well-being among institutionalized orphans.

2.8 Significance of the Study:

In India, a large number of kids are raised without parents. According to *UNICEF, (2005)*report, India has nearly 55 million orphan children between the ages of 0 and 12, and the number continues to rise at an alarming rate (as cited in Naqshbandi et al., 2012). The population of orphans has increased tremendously in the last decade due to so many reasons. In Jammu & Kashmir, 32 years of internal security concern have left many people dead and countless children orphaned and vulnerable, which has contributed to the alarming increase of orphans in the union territory. Parental loss and admission into an orphanage can be stressful. The trauma of losing a parent being a primary caregiver for the child has the greatest effect on a child's psyche during the adolescent period of life. The loss hinders the positive formulation of their own self and their understanding of their own abilities and skills, which consequently has long-term consequences for one's future behaviour and can negatively influence the self-esteem of the child, which in turns might have a detrimental influence on the psychological well-being of a child(Kannan et al., 2016).For a child's health and growth, psychological health is crucial. According to the World Health Organization (2006),psychological health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.” The majority of intervention studies found that participants' psychological well-being improved because of an intervention. A review paper

intervention study aiming to enhance the psychological well-being of HIV/AIDS orphans found that vulnerable children and/or their caretakers focused on social assistance, coping mechanisms, child-centered group interventions, and the significance of adult guidance and assistance(Wu & Li, 2013).Thus, there is a dire need to investigate into the well-being of these institutionalized adolescent orphans. The present study will focus on the well-being of institutionalized adolescent orphans. Mindfulness has grown more popular among teenagers and youth as a type of psychological support intervention. It has proved to be an effective personal resource in promoting psychological well-being, quality of life, emotional control, coping strategies, self-regulation among school going adolescent & children (Fung et al., 2019; McKeering & Hwang, 2019; Modi et al., 2018; Viglas & Perlman, 2018).MBSR techniques as part of the orphanage curriculum can help these children to overcome the trauma & stress associated with the loss of their loved ones by allowing them to sincerely benefit from the opportunities provided to them in the orphanages in the form of schooling, vocational training & so much more. This study will be beneficial for the target population in terms of making them capable to cope with stress and be fully aware of themselves and their emotions. MBSR can also help safeguard against the adverse effects of negative life events. MBSR is a cost effective and time bound and easy- to-use intervention technique that can be used in institutionalized settings. The government can make policies regarding the use of MBSR or make it a part of curriculum of the orphanages. Children are future of any country and growth of the nation depends on the care-full upbringing of these children, institutionalized adolescence orphans need extra care as they are already struggling with negative life circumstances, and this can in turn lead to psychological problems. Further, if psychological problems are not addressed satisfactorily orphans might end up involving in risk behaviours such as substance abuse, impulsive behaviour, violent activities, and other behaviours which is not acceptable in any society(Shrivastava, 2007). Thus, MBSR can also prove to be beneficial to the society indirectly.

2.9 Aim of the Study:

Considering these facts and the implications that can be drawn from the significance. The author felt the need to assess the effectiveness of MBSR intervention on

perceived stress, mindfulness, self-regulation, and psychological well-being of institutionalized orphans.

2.10 Objective of the Study:

The majority of research done on orphans is mostly descriptive in nature. These children have received very little attention in regards to resolving their difficulties. Therefore, this study is a step forward in the Indian context, more specifically in Jammu division(J&K) in trying to solve the psychological problems faced by this neglected segment of the society with the help of an intervention program. Thus, this quazi- experimental study aims to assess the Effectiveness of MBSR Intervention on Perceived stress, Mindfulness, Self- Regulation and Psychological well-being of Institutionalized Orphans, and also tries to find the mediating role of mindfulness & regulation of self in association amidst perceived stress and psychological well-being after receiving the intervention. In the backdrop of above text and literature review the present study puts forth following objectives to be achieved:

Objective 1. To examine the Effect of Mindfulness Based Stress Reduction (MBSR) intervention on perceived stress, mindfulness, self-regulation and psychological well-being of institutionalized orphans.

Objective 2. To examine the relationship between perceived stress and psychological well-being of Institutionalized orphans

Objective 3. To examine the relationship between mindfulness and perceived stress of institutionalized orphans

Objective 4. To examine the relationship between mindfulness and psychological well-being of institutionalized orphans

Objective 5. To examine the relationship between mindfulness and self-regulation of institutionalized orphans.

Objective 6. To examine the relationship between self-regulation and psychological well-being of institutionalized orphans.

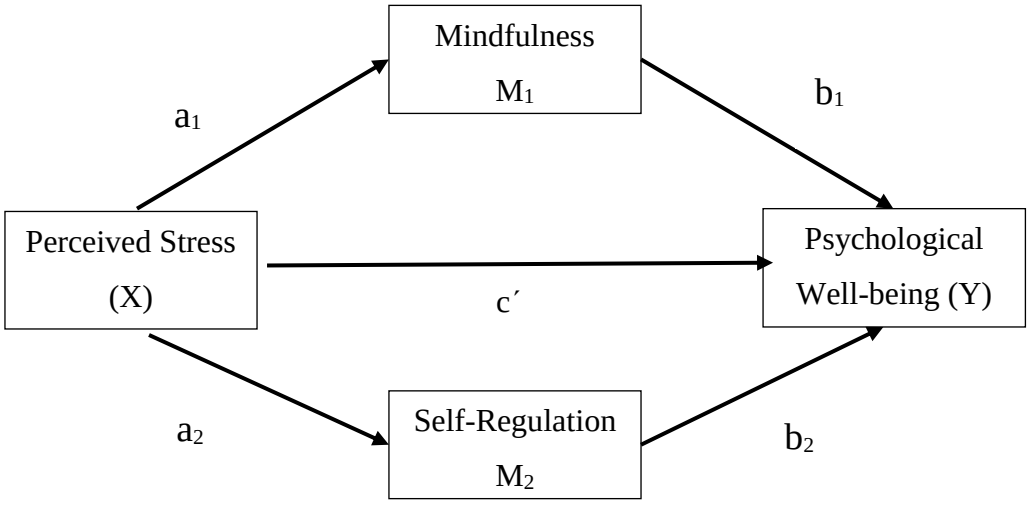
Objective 7. To examine the relationship between self-regulation and perceived Stress of institutionalized orphans.

Objective 8. To investigate the parallel mediating effect of mindfulness and self-regulation in relationship between perceived stress and psychological wellbeing of

institutionalized orphans after receiving the intervention.

Figure 2.2

Conceptual Diagram.



Objective 9. To study the differences among the male and female institutionalized orphans with regard to their perceived Stress, mindfulness, self-regulation and psychological wellbeing.

2.11 Hypotheses:

Hypothesis 1: There will be no significant difference on perceived stress, psychological well-being, self-regulation and mindfulness of institutionalized orphans between experimental & control group at baseline (Pre-test).

Hypothesis 1a: Control group will show no significant improvement in perceived stress, mindfulness, self-regulation, psychological well-being variables post intervention as compared to pre intervention scores.

Hypothesis 1b: Experimental group will show significant improvement in perceived stress, mindfulness, self- regulation, and psychological well-being variables post intervention as compared to pre intervention scores.

Hypothesis 1c: There will be a significant difference on perceived stress, psychological well-being, self-regulation and mindfulness of institutionalized orphans between experimental & control group post intervention. (Post-test).

Hypothesis 2. There exists significant negative relationship between perceived stress and psychological well-being of institutionalized orphans.

Hypothesis 3. There exists significant negative relationship between mindfulness and perceived stress of institutionalized orphans.

Hypothesis 4. There exists significant positive relationship between mindfulness and psychological well-being of institutionalized orphans

Hypothesis 5 There exists significant positive relationship between mindfulness and self-regulation of institutionalized orphans

Hypothesis 6. There exists significant positive relationship between self-regulation and psychological well-being of institutionalized orphans.

Hypothesis 7. There exists significant negative relationship between self-regulation and perceived stress of institutionalized orphans.

Hypothesis 8. There will be significant parallel mediation of mindfulness and self-regulation in relationship between perceived stress and psychological wellbeing of institutionalized orphans after receiving the intervention.

Hypothesis 9. Male and Female institutionalized orphans differ with regard to their Perceived Stress, Mindfulness, Self-regulation and psychological wellbeing scores

3 RESEARCH METHODS:

This chapter represents the research methodology adopted to conduct the present study. The quantitative research approach was chosen for the investigation of the research hypothesis. The methodology of this study includes description of research design, participants, study setting, research instruments, nature of intervention, procedure of data collection and its analysis.

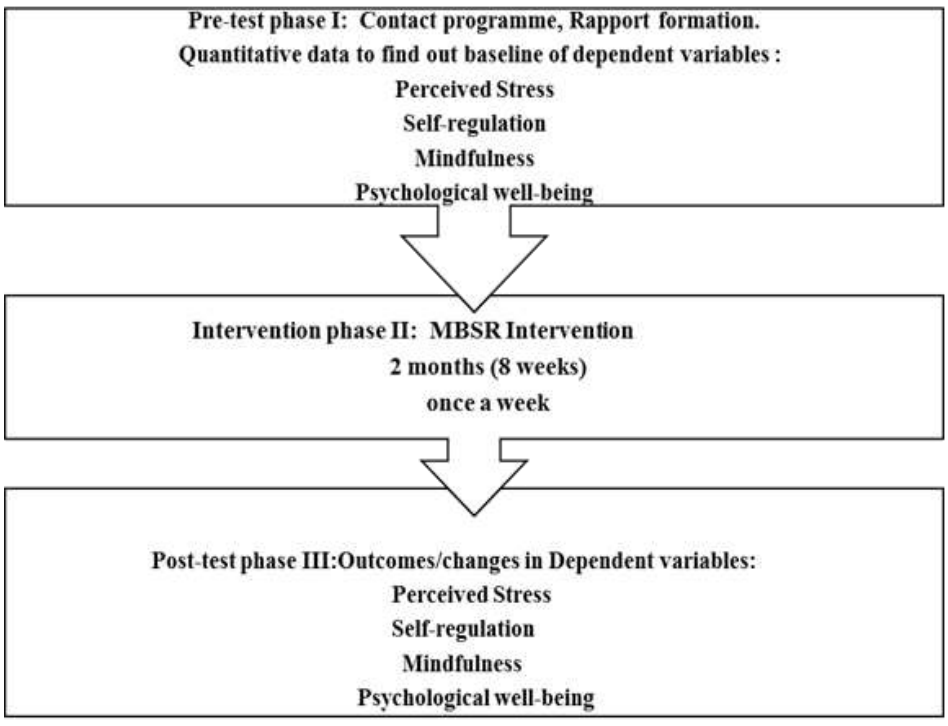
3.1 Research Design:

The design of research is a framework/blueprint that outlines the procedures and strategies for gathering and analysing the data. As reported by(de Vaus., 2001), "The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem."

Quazi-experimental study with pre-post-test with control group was used to assess the efficacy of MBSR Intervention on Perceived stress, self -regulation, Mindfulness and Psychological well-being of institutionalized orphans.

Figure 3.1

Pretest-Posttest Research Design.



3.2 Venue of the Study:

The current investigation was undertaken in the orphanages situated in Jammu and Kathua districts of Jammu division (J&K UT, India).

Table 3.1

Venue of the study

S. No.	District	Name of the Institution	No. of Children
1.	Jammu	Ved Mandir Balika Ashram, Amphalla	60
2.	Jammu	Ved Mandir Bal Ashram, Amphalla	71
3.	Kathua	W. No. 7, Near Govt. Middle School Kathua	30
Total			161

3.2.1 *Population:*

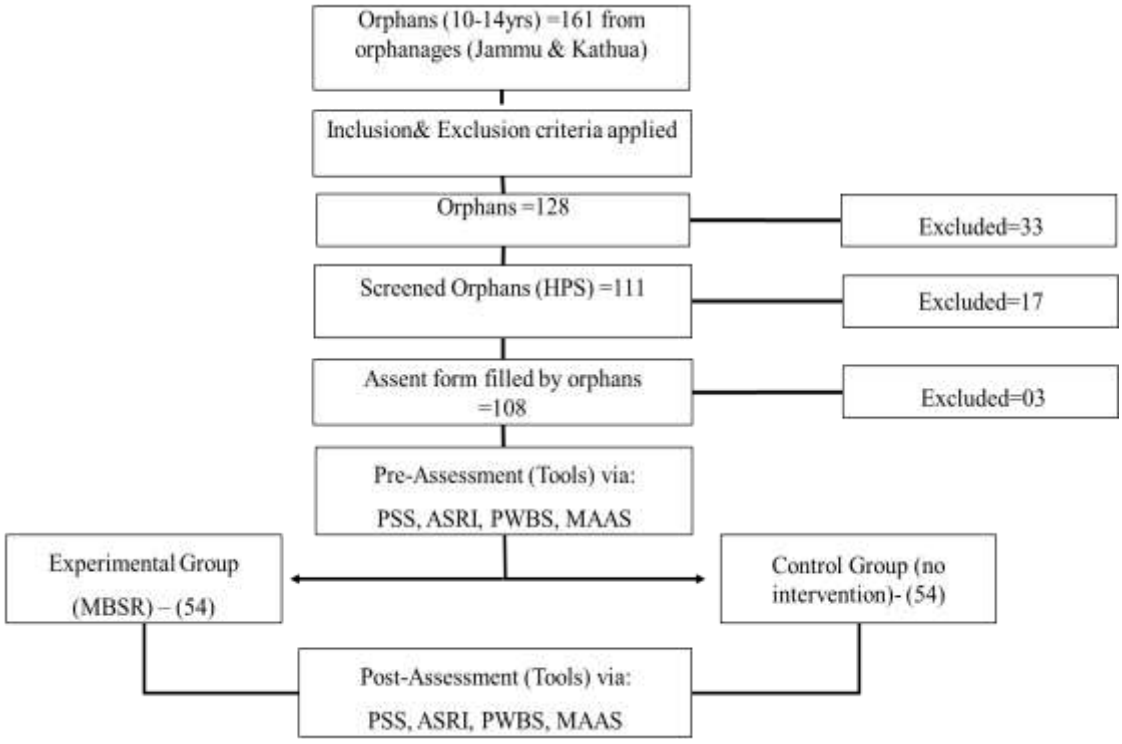
For this present study, all the institutionalized orphans residing in governmental & non-governmental orphanages of Jammu division of (J&K UT, India) were the population of the study.

3.2.1.1 Sampling technique, sample, and sample size:

The researcher selected a sample from this target population for the current study. A sample is a subset of the target population that the researcher intends to examine in order to draw conclusions about the target population as a whole(J. W. Creswell, 2002). The sample for the study was chosen using the purposive sampling method. The sample age range was fixed to 10-14 years of age because of the physical changes, growth surge, and quick development of cognitive abilities. The sample was screened on the basis of their perceived stress and only those samples were provided the intervention who had high perceived stress as analysed by perceived stress scale developed by (Cohen et al., 1997)The following flow chart exhibits the framework of the sample for the study:

Figure 3.2.

Flowchart represents the procedure of the study.



3.2.2 *Inclusion criteria& Exclusion criteria for the sample:*

The inclusion criteria for participant selection encompassed a specific group of institutionalized adolescents aged 10-14 years who willingly consented to participate in the study. These participants had resided in the orphanage for a minimum duration of 6 months and had either one living parent or none. Additionally, proficiency in both English and Hindi reading and writing was required. Selection of participants was further refined based on their perceived stress levels, with a focus on those exhibiting high levels of perceived stress. This approach ensured a targeted and cohesive sample that aligned with the research's aim of exploring psychological well-being among institutionalized orphans.

Conversely, certain orphan individuals were excluded from the study based on predefined exclusion criteria. Those with documented psychological or physical disabilities were excluded to ensure that the study's focus remained on psychological well-being rather than being confounded by pre-existing conditions. Orphans who had both parents alive were also excluded, as were individuals with low or medium perceived stress levels.

3.3 Delimitation of the Study:

Every research endeavour has a variety of constraints to contend with. It needs to be limited in terms of the population it looks at, the sample it uses and the number of variables it looks at.

Thus, the present study is limited to:

- Only institutionalized orphans.
- Orphans who have high perceived stress, as assessed through the perceived stress scale developed by (Cohen et al., 1997).
- Orphanages situated in the Jammu division of the J&K Union territory.

3.4 Measuring Tools for the Research:

The following tools were used for gathering the data:

3.4.1 *Socio-demographic sheet:*

It is a self-prepared performa that is semi-structured and was created expressly for this study. It includes information pertaining to socio-demographic variables like age, gender, location, reason, and period of stay in the orphanage etc.

3.4.2 *Weekly mindfulness practice form:*

This form was self-prepared to evaluate the weeks' worth of minutes each participant spent engaging in mindfulness practises at their spare time. The form consists of columns specifying date, time, duration, degree of awareness and satisfaction.

3.4.3 *The Perceived Stress Scale (PSS) by (Cohen et al., 1994), Hindi version by (Pangtey et al., 2020):*

It's one of the most widely employed psychological instruments for assessing stress perception. It is a gauge of how stressful a person perceives their life's circumstances to be. A 10-item scale measuring respondents' perceptions of their life' unpredictability, uncontrollability, and overload was developed. A number of straightforward questions about present stress levels are also included on the scale. The questions and response options are both straightforward to comprehend and the things are clear. Additionally, the questions lack any information specifically relevant to any one group because of how general they are. The PSS includes questions

regarding emotions and ideas from the previous month. The scale has acceptable internal consistency with cronbach's alpha of 0.73 and total scale validity of 0.72.

SCORING: It has five possible responses on a Likert scale, from "Never" to "Very Often. "Scored as 0, 1,2,3,4. To calculate the score firstly, four positively worded items 4,5,7,8 are to be scored in reverse order as 4, 3,2,1,0. Finally, the final score is obtained by adding all the items. The individuals score in PSS ranges from 0-40. Higher score indicates higher perceived stress level.

Table 3.2

PSS Score & it's Interpretation.

SCORES	LEVEL OF PSS	INTERPRETATION
0-13	LOW STRESS	LOW PERCEIVED STRESS
14-26	MODERATE STRESS	MODERATE PERCEIVED STRESS
27-40	HIGH STRESS	HIGH PERCEIVED STRESS

Source:(Cohen et al., 1994)

3.4.4 *Mindfulness attention awareness scale (MAAS) by (Brown & Ryan, 2009):*

The 15-item MAAS gauges a person's propensity to be aware of their immediate surroundings(Brown & Ryan, 2009). It aims to evaluate present-focused consciousness and attention that is responsive in nature, which is a key component of dispositional mindfulness. With a sample of college students, members of the community, and cancer patients, the measure demonstrates significant psychometric qualities with cronbach's alpha being .84 and internal consistency of the scale was acceptable at both time 1 and time 2(a = 0.85 and a = 0.88)(Brown et al., 2011)

SCORING: It is a 6-point scale ranging from "Almost always" to "Almost never" scored as "1,2,3,4,5,6" respectively. To find out the score, simply calculate mean(average) of all the items. Higher score indicates higher level of dispositional mindfulness.

3.4.5 *Adolescent Self-Regulatory Inventory (ASRI) by (Moilanen, 2007):*

This 36-item self-report survey assesses both short- and long-term self-regulation. The instrument has satisfactory psychometric qualities and is frequently used in research (for short term a = 0.70 and for long term a = 0.82). "Both the concurrent

and construct validity, as well as the internal consistency of the long- and short-term components, are satisfactory(CFI=.88)"(Moilanen, 2007).

SCORING: It has five possible responses on a Likert scale, from "Not at all true for me" to "Really true for me" scored as "1-not at all true for me",2,3,4, "5- really true for me" respectively. In order to calculate the total self-regulation, some items like 1,2,5,6,7,8,12,13,14,15,16,18,19,21,34 & 35 are to be scored reversely as in "5-not at all true for me" ,4,3,2, "1- really true for me". Then the final scores are obtained by adding up all the items. The highest score of this scale is 180 and lowest is 36. Higher the scores, better the ability to self-regulate. In order to calculate Short -term self-regulation v/s Long-term self -regulation following short term items like "2,6,8,9,11,13,14,16,17,18,19,21 &22" are to be scored accordingly and summed up. Higher the score higher is the ability for short term self-regulation. For Long-term following items 3,4,12,15,20,23,25,26,27,28,29,30,31 & 36 are to be scored accordingly and summed up. Higher the score higher is the ability for long term self-regulation.

3.4.6 *Psychological Well-being scale by (Sisodia & Choudhary, 2012):*

It is a 50-items scale measuring 5 dimensions of psychological wellbeing i.e., Life satisfaction, Efficiency, Sociability, Mental health, and Interpersonal relations. "Reliability coefficient is reported to be .90 and test-retest reliability is reported to be .87".

Table 3.3

Areas of PWBS.

AREAS OF PWBS	ITEM. NO.	TOTAL ITEM
LIFE SATISFACTION	1 TO 10	10
EFFICIENCY	11 TO 20	10
SOCIABILITY	21 TO 30	10
MENTAL HEALTH	31 TO 40	10
INTERPERSONAL RELATIONS	41 TO 50	10
TOTAL PWBS	1 TO 50	50

Source:(Sisodia & Choudhary, 2012)

SCORING: It uses 5- point Likert scale ranging from "Strongly Agree" to "Strongly Disagree" scored as "5- strongly agree" ,4,3,2 "1- strongly disagree". In order to calculate the total psychological well-being, scale al the scores of the 50 items are to be summed up and final score has to be obtained. In order to calculate the psychological well-being dimension wise then the items specifying the dimension has to be summed up and final score obtained. Interpretation of the full scale and its dimensions is specified in the following table:

Table 3.4

Norms for interpretation (Area wise & for Entire scale).

AREA WISE SCORES	INTERPRETATION OF PWBS (AREA WISE)	TOTAL PWBS SCORES	INTERPRETATION OF TOTAL PWBS
10-12	VERY LOW	**50-58**	VERY LOW PWB
12-16	LOW	**58-83**	LOW PWB
16-43	MODERATE	**83-217**	MODERATE PWB
43-48	HIGH	**217-242**	HIGH PWB
48-50	VERY HIGH	**242-250**	VERY HIGH PWB

Source:(Sisodia & Choudhary, 2012)

3.5 Procedure:

The present study was conducted as follow:

Firstly, investigator underwent a mindfulness practitioner training followed by approaching the orphanages and obtaining permission from the authorities for data collection.

Secondly, developing and arranging socio-demographic and weekly meditation form in addition to the already standardized tools for assessment of the variables under study respectively.

Thirdly, during the main phase the orphans under study aged 10-14 years were screened based on their perceived stress level as assessed by the P.S.S scale and only those orphans having screened with high perceived stress level, having met with the inclusion and exclusion criteria and who gave their assent to be part of it were

included in the main study. The 108 orphans having high perceived stress were divided randomly by using random number generator assigning participants with odd numbers to the experimental group who received the MBSR intervention and those with even numbers to the control group who followed the same schedule.

In a group setting, the intervention promoted practising, understanding, and training in many forms of meditation, such as loving kindness exercises, mindful breathing, yoga, observation, and stopping. Caution was exercised to introduce and talk about the formal & informal features of mindfulness meditation practice. Attention was given to the development of non-striving, non-judgmental, moment-to-moment attention while incorporating the exercises during daily practice. This study consists of a total 8 sessions spread over 8- weeks i.e., 2 months lasting 1- hour per session on a weekly basis. The description and format of session is as follows:

3.5.1 *Mindfulness based stress reduction program for the study:*

Pre assessment:

1. Introducing oneself.
2. Administering Questionnaire

   via Psychological Well-Being scale

   Adolescents Self-Regulatory Inventory

   Mindfulness Attention Awareness Scale

Session 1:

1. Introduction: Mindfulness: explaining its concept & benefits.
2. Theory: The biology and signs of stress, defining emotional & self- regulation, MBSR introduction and an overview of upcoming activities.
3. Technique: Mindful breathing.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 2:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)

2. Theory: Attention and the brain. (Mind Body Connection)
3. Technique: Mindful Yoga.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 3:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)
2. Theory: Living in the moment.
3. Technique: Mindful Observation.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 4:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)
2. Theory: Stress: Responding v/s Reacting.
3. Technique: Mindful Stopping.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 5:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)
2. Theory: Dealing with Difficult Emotions.
3. Technique: Role Plays.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 6:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)

2. Theory: Dealing with Negative Thoughts.
3. Technique: Replacing Automatic negative thoughts with positive thoughts.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 7:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)
2. Theory: Self-compassion.
3. Technique: Loving- Kindness Exercises.
4. Feedback from the participant after training, providing guidelines for practising during spare time.

Session 8:

1. Follow-up: gathering reports on the workouts from the prior week. (Weekly meditation form)
2. Theory: An overview of the knowledge gained over the last two months.
3. Practice: write down your thoughts as a form of self-practice and mindfulness consolidation.

Post-assessment:

Questionnaire administration

Via Perceived Stress Scale

Psychological Well-being scale

Adolescent self-regulatory inventory &

Mindfulness Attention Awareness Scale

3.5.2 *Description of each session:*

Pre-test:

Researcher aimed at establishing a rapport with the orphans. Pre- assessment was carried out and perceived stress scale, mindfulness attention awareness scale,

adolescent's self-regulatory inventory and psychological well-being scale were administered.

Session 1:

Introduction- Mindfulness (Concept & Benefits):

In simple terms Mindfulness is being Mindful of each moment that we live, being aware of our thoughts and feelings without any judgements attached to them. Various Mindfulness activities helps us in becoming more aware of our environment along with helping us in reducing various distractions. It's like any other life skill that needs daily practice to attain perfection. Numerous researches have shown that practicing mindfulness not only benefit us by improving our focus and performance, boosting our physical & mental health but also increases our perception on how our body & mind works enabling us to better regulate our emotions and thus our overall well-being.

Theory: MBSR introduction and summary of upcoming activities:

The concept of Mindfulness was explained along with emphasizing on how easy it is to incorporate different MBSR based techniques in one's day to day activities. Moreover, why these techniques are beneficial and why is there any need to incorporate it in one's daily schedule were also discussed. The complete schedule of activities was discussed with the audience as they were made aware that the program will be spread over 8 weeks with weekly sessions of 60 minutes each. An overview of each session, starting from Session 1 to Session 8 were explained in brief. Orphans were educated about the length of each session, activities that will be done during each session and the complete tenure of the intervention programme was also discussed. They were also made aware of the need for their active involvement in the research study by way of practicing the techniques done in every session on daily basis as a part of their homework activity with utmost honesty as after completion of each session, a weekly meditation form will be administered to them which will focus on diarizing their meditation homework practice for the rest of the week, which will further help in analysing the duration of practice done each day, the change in their degree of awareness along with change in their satisfaction level. Orphans were allowed to voice their thoughts about the proposed program, the kind of support they

would be requiring from the researcher's side and any hurdle that they foresee which can make the program unsuccessful.

Mindful Breathing:

Breath is the fundamental focus on which attention techniques in mindfulness are based. Mindfulness of breath is a simple & effective approach considering breathing is something we do all the time, is portable & even though we hardly notice it we can always return our focus to it & thus, mindful breathing can be done anywhere, anytime & without incurring any cost. The mainstay principal of mindful breathing is being aware of our thoughts and emotions in a detached way. The technique of mindful breathing mainly focusses on keeping breath as an anchor that can help us in achieving mindfulness (present moment awareness) of our own selves by stepping out of autopilot mode by resetting the button and coming back to our senses.

Not only does Mindful Breathing exercises help us regain Our sense of Environment but scientifically When we breathe in (Inhale), we activate our sympathetic nervous system which leads to Increase in Our Heart rates along with dilation of pupils, contraction of blood vessels, increasing sweating and slowdown of one's digestive system. This is often called the acute stress response which makes the body more alert and overall tension increases. On the contrary, when we breathe out (Exhale), we activate our parasympathetic nervous system which leads to slowing down of our Heart rates and increasing our body's intestinal and glandular activities due to which we generally feel more relaxed (Burdick, 2014).

Activity- Mindful Breathing:

Mindful Breathing is the fundamental step towards Mindfulness Exercises.

We all know that breathing is what keeps us alive but how many of you have noticed yourself breathing. Imagine an activity as basic as breathing, that we do each moment of our life but still it goes unnoticed. Thus, today as our first session and our first step towards increasing our mindfulness, we will be starting with Mindful Breathing.

You can engage in mindful breathing exercises while seated on a chair or on the floor.

- Take a moment and find a comfortable sitting posture for yourself, those who are sitting on the chair – ensure to keep your feet flat on the floor with a comfortable distance between the two feet and your hands should be resting anywhere on your

upper thigh/leg with your spine straight and whole body relaxed. The posture to be straight & self-supporting without seeking support from the back rest of the chair but comfortable. For others who are comfortable with sitting on the floor, sit on the floor cross legged, ensure that you are comfortable in the posture, keep your spine straight and place your hands on your knees or lap as it suits you. You also must ensure that the posture is straight & the spine is self-supporting. A great posture is all we need to begin the practice on the right note.

- Gently Close your eyes, be still and get comfortable with your posture and the surroundings around. Once your eyes are closed you will become more aware of the sounds around you, the way different parts of your body are touching different points of contact and the sensations it is producing. Now you are more in sync with your surroundings and with your eyes closed you will be listening to my verbal instructions where we will be involving ourselves with the process of Mindful Breathing Exercise. We will explore the breath as our main focus-object which will help us in keeping our mind in the present moment.
- Now that you have taken some time to settle into your body, we will now bring our attention towards our breathing. Experience your breath entering your nostrils and filling your chest & belly. Slowly breathe in through your nose & notice your belly expand with your inhalation, now slowly breath out, keep your lips pursed and notice your belly contract with your exhalation. Start noticing your breath in each cycle of inhalation & exhalation & notice its natural course.
- Imagine that a pouch is in your belly & each time you inhale, it is filled with air & with each exhalation it contracts. With your eyes closed, keep noticing your breathing. Experience whatever is happening, many a times your attention will be pulled away from the breathing process. Your mind may wander to some thought, some past experiences, may drift off into thinking but don't worry any of these distractions are completely normal. Infact when the mind tends to drift, observe what is occurring, what are your thought process or what you are sensing & then gently bring back your attention to breathing.
- Try counting your breaths, for example count every inhale as 1 & every exhale as 2 or name your breaths for example every inhale as IN & every exhale as OUT.

Follow every inhalation & exhalation & notice how your belly expands & contracts.

- Repeat the belly breathing 5-10 times.
- Now you can gently open your eyes again & take a moment to reflect on how you felt during the activity & share your experience.

Practice of focusing on breathing will increase your control over your responses, with consistent practice you will become more reflective than reactive in your reactions to situations/external stimuli.

Session 2:

Follow-up of Session 1: The focus of last weeks -Session 1 was learning the technique of Mindful Breathing with the aim of building our ability to pay attention to the Here & Now. Session 1 focused on paying attention to the process of breathing, which always stays with us till we are alive.

While we are progressing to Session 2 this week, another thing that always stays with us is our body. In this session our focus will be to understand the Mind & Body connection. Our aim will be to become more aware of our internal world and our body will be the object of our mindfulness technique in this session.

Attention & the Brain: (Mind Body Connection)

Our Mind and Body are connected- Mind affects the body and vice- versa. Our mind is responsible for our thoughts while our body is responsible for the sensations which collectively affect our emotions and the brain is the hardware that lets us experience all of it. Let's walk through an example and understand how this interconnection works between our thoughts, sensations, and emotions.

Case 1: Imagine you have pain in your Stomach **(Sensation),** it will affect your **(Emotions)** – you may feel irritated, annoyed, or even unpleasant about it as well as your **(Thoughts)** like when will this pain end, how did I end up with such severe pain or you may even be stressed about it.

Case 2: Now Imagine you are watching a Horror movie and are feeling Fear **(Emotion),** the body will start sweating, your heart may start racing, you will feel stress in your body **(Sensations)** and you will think about how you should have never

watched this movie or how unpleasant it is becoming or for the faint hearted you might even think of stopping the broadcast for good **(Thoughts).**

Case 3: Imagine thinking about your Success, you might think how I achieved a benchmark or the time I stood in the Top 3 of any competition **(Thoughts),** your body immediately becomes relaxed, you start experiencing butterflies in your stomach **(Sensations)** and you feel more happy and joyful **(Emotions).**

As we can see, all the three have influence on each other and thus, if we are able to regulate any one of these, we can increase our chances of regulating the other two variables as well. With Mindful Yoga our effort will be to become more aware of our body so that we reconnect with ourselves and become more aware.

Activity- Mindful Yoga:

Under Mindful Yoga we will be mainly focussing on Body Scan Technique.

You can practice Body Scan Technique either by lying on the floor, bed, or mattress. During this activity we will be scanning our body from Toenail to Head by lying on the floor with our eyes gently closed. While we will be practicing the activity, our aim is to be a witness of what is happening inside our body while we are shifting our focus from one part to another, Experience the sensations without any judgement, if you experience discomfort or stress in any part of your body, gently shake it and make yourself comfortable. While your eyes will be closed, you will be observing your body with your inner eyes along with being aware of the sensations and emotions that the activity is producing. Try to relax but be mentally awake throughout the entire process. Proceed the activity with a positive thought and openness to the entire process. Let's start the activity by following my verbal instructions.

- Maintain a comfortable distance from each other so that each one can do the exercise without discomforting the other participant.
- Lie down with your back on the floor and your eyes towards the roof. Gently shut your eyes, rest your arms on the floor besides your body with your palms facing upside and your legs a little open with your feet at a distance from each other.
- With your eyes closed start focusing on your breath, observe the breathing and how it is calming you down. With each breath your body is getting relaxed and is

settling down with the surroundings. Follow your breath for few seconds more till you feel all ready.

- Keeping your eyes gently closed, now gently shift your focus to your right small toe, its toenail – experience if you feel any sensation, gently shift the focus to toe besides it till you reach the right big toe. Enlarge the focus to your complete right toe and then to your left toes and the whole foot. Observe the different sensations that your body is producing during the process. With your next inhale shift your focus to both feet, its souls, its heels, its ankles. Notice the sensations if any, be it warm or cold or itch or prick or nothing at all. Name them without judging them.
- With each breath now gently shift your attention upwards towards your right calf and then your left calf, the shin area and then towards your knees. Enlarge your focus to complete lower parts of your legs- experience how its resting on the floor.
- Now gently shift your focus towards your right thigh and then your left thigh. With each passing breath become more aware of it. Observe how its attached to your hip area, your buttocks, and your waist.
- Slowly and gently with each breath keep shifting your focus to your stomach, the magnificent belly button, experience it moving up and down with each inhalation and exhalation. Move more upwards towards your chest, observe how it expands and contracts with each breathing cycle. Notice the heartbeat and imagine how the whole body is being enriched with the supply of blood by a small organ like heart. Let yourself experience every small sensation produced by each part of your body.
- Move on to your shoulders, your nape, your shoulder blades, your upper, middle, and lower back. Enlarge the focus to the whole back area and how it is touching the ground, become more aware of its existence.
- Now shift your focus to the fingertips of your right hand, then left hand, then progress towards your palms, both of your wrists and then complete hand. Observe the pulse in your wrists and how with each breath the oxygen is being supplied to arms, elbows, and armpits. With each passing moment observe your body delving into deeper state of relaxation.
- Now slowly shift your attention towards your jaw line- notice how it defines your face, your chin, your lips, your teeth, your tongue. With each breath experience the sensation within your mouth – it may be dry, may be salivating – experience it

as it is without any label attached to it. Further focus on your nose and observe how it is inhaling & exhaling through nostrils, your cheeks, your ears, your ear lobes, your eyes, and the eyebrows. Gently move your focus towards the temple and the forehead. Become more aware of your complete face and gently from each part of the body now enlarge your attention towards whole of your body from the head to the toe. Notice how entire body is lying on the floor, experience its various touch points and allow it to further move into a greater peace and tranquillity.

- Now gently start moving your body starting from your toes to your legs to your arms and eventually the whole body. Now you can gently open your eyes again & take a moment to reflect on how you felt during the activity & share your experience.

Practice of focusing on various sensations in your body will help you in having better control over your thoughts & emotions and vice-versa. With consistent practice you will become more analytical towards the experiences the life throws at you.

Session 3:

Follow-up of Session 2: The focus of last weeks- Session 2 was learning the Body Scan technique under Mindful Yoga with the aim of increasing our capability of paying greater attention to our body & understanding the subtle connection between our Body & Mind.

While we are progressing to Session 3 this week, we will try to indulge ourselves in an activity which will enable us to increase our awareness of the present moment.

Living in the Moment:

Many a times you would notice that we progress into a chain of thoughts without any conscious effort, our mind keeps hopping from one thought to another without us even realising it. How many times has it happened to you?

You must have also noticed that while doing daily chores, things that we do daily as a matter of our routine, our mind is in an automatic mode like while brushing teeth every morning, washing our face etc. Even after doing some chores, we tend to forget it, for example- while shifting from one room to another, we tend to forget whether we switched off the lights of the previous room or while cooking food, we tend to

forget whether we put the gas at off mode. Does this happen to you, and have you wondered why does it happen?

Often our Mind instead of staying in the Present gets distracted with numerous trips to our past or our future or just wandering aimlessly and this state of Mind is Mindlessness. The virtual trip on which our Mind often tends to go is so unconscious that it takes us some time to notice that our mind has wandered, and it must be bought back to reality and that is where the need of being Mindful of the Present moment comes in picture.

Present Moment is everything that is Here & Now. In our last 2 activities, we closed our eyes to practice Mindfulness but today we will keep our eyes open and practice mindfulness. In today's activity we will maximise the use of all our senses – See, Touch, Smell, Listen & Taste to experience the Here & Now.

Activity – Mindful Observation:

Today's activity will be focusing on increasing awareness of our immediate environment instead of increasing internal awareness. In this exercise, we will keep our eyes open and focus on the outer world rather than searching what's inside. Like breathing is a constant phenomenon in our Life, the same way Eating is a process in which we indulge on a day-to-day basis.

Today we will be using Eating as an activity to inculcate Mindfulness in the process. We will be using all our Senses to experience it to the maximum extent and approach the process of Eating with Curiosity, as if we are indulging into it for the first time in our lives. If your mind wanders, don't stress too much about it; simply observe it without passing judgement and then gently bring it back to the present.

Mindful Eating:

The concept of mindful eating is related to the broader idea of mindfulness, which is to focus attention on the present moment rather than our past or future. I have placed a Food item along with a notepad in front of you, while relishing the food item, savouring it with each bite; each one of us will be noting everything that we experience today while consuming it bite by bite.

Stay mindful of what you put in your mouths, pay attention to its flavours – if it's spicy, sweet, bland, sour or bitter. Notice its smell, its texture – if it's cold, dry, soft,

hard, semi liquid, solid, frozen, wet. Write down the colours you see on the plate, observe the temperature of the food – if it's cold, warm, frozen or hot. Relish the taste of the food with each bite. Notice the smell of the Food – if it's minty, artificial, citrus, pungent or fruity. Hear the noises the food makes when you chew it in your mouth – hear if it's crunchy, slurpy or chewy. Let all your senses rediscover themselves.

Experience the joy of eating from today onwards. As you eat it, pay attention to how it feels, looks, and smells. If the mind wanders, gently bring it back to the process. Simply by being more conscious and present, you might encounter a completely different sense. The more you do it, the simpler or perhaps more automatic it gets. Awaken your senses; they are essential for a full sensory experience and for assisting us in making sense of our surroundings.

By paying close attention to each bite you take, you will not only be engaging into mindfulness on a day-to-day basis but will also cease utilising food as a coping mechanism for unpleasant feelings.

Session 4:

Follow-up of Session 3:

The focus of last weeks- Session 3 was learning the art of Staying Mindful with the help of 5 senses of our body. The aim of our practice sessions last week has been to be aware of every aspect of the moment and rediscover it. With consistent practice our ability to bring our ever-wandering mind to the present moment will increase and it will enhance our ability to stay in the present and take hold of it leading to maximum focus & productivity with least distractions & stress.

While we are progressing to Session 4 this week, we will try understanding the concept of Stress, its effect on us, our behaviour towards it and the ways we can become aware of its presence in our system and how we can regulate ourselves efficiently.

Stress – Responding Vs Reacting:

The definitions of Stress as per Oxford dictionary are:

i. "Pressure or tension exerted on a material object."

ii. "A state of mental or emotional strain or tension resulting from adverse or demanding circumstances." (Oxford languages, n.d)

Going by the second definition of stress, the state of tension in our mind and strain in our emotions resulted by adverse circumstances is Stress and as we have already established the subtle connection between Mind & Body in Session 2, it will not be wrong to conclude that Stress affects not only our mind but also our body.

Few examples of the circumstances that cause us Stress can be External like loss of a loved one, Pressure of studies, unhappy relationships, pollution etc or Internal like fear, body pain, lack of rest, negative thinking etc and while not all the circumstances are in our hands to change, our chance at reducing stress is by improving how our Body & Mind respond towards it.

Has it ever happened to you during a stressful situation, wherein you lost control of your temper or started excessive crying or even acted recklessly only to regret it later? It has happened with all of us at one point in time or another where we over-reacted to a stressful situation which could have been handled with more grace & better self-regulation and thus Mindful stopping can be used as our first line of defence towards better stress management.

Mindful stopping is a strong, yet surprisingly simple approach for staying focused, attentive, calm, and emotionally at your best when a major life event occurs.

The acronym STOP stands for:

S: STOP

Stop doing what you're doing and put your thoughts and actions on hold.

T: TAKE

To centre yourself and bring yourself fully into the present moment, take a few deep breaths.

O: OBSERVE

Notice what is happening at the following levels -

Level of Body- What physical sensations (touch, sight, hearing, taste, and smell) are you aware of?

Level of Emotions -What are your current feelings?

Level of Mind - What assumptions do you have about how you feel? What's the tale you're telling yourself about why they're happening?

P: PROCEED

Carry on with whatever you were doing, consciously choosing to assimilate what you have just learnt (Charyk, n.d.).

Activity – Mindful Stopping:

In stressful situations, mindful stopping allows you to check in with yourself before acting rashly or without deliberation. Today, I want each one of you to recall an incident where you felt stressful about it. Our aim today is to become aware of things that causes us difficulty, identify different areas that cause us stress and finally learn ways to reduce stress mindfully. During this activity, we'll take some time to investigate what's going on inside our body and mind.

- Take a moment and find a comfortable sitting posture for yourself, now think about the incident which causes uneasiness or stress and with that thought, gently close your eyes.
- Slowly settle down in your body and bring your focus on to your emotions. Label how you are feeling, are you angry, anxious, uneasy and while you label the emotions and the thoughts, do not judge yourself. Simply let the emotions be without changing anything.
- Gently turn your focus to your physical experiences, Are you feeling tension in your body, is your heart racing or are you sweating? Simply observe and examine these sensations and now that you know what is going on within your body and mind, you are in the driver's seat and in command of yourself.
- After reaching this point in the activity, gently shift your focus towards your breath and relax your mind. Gently keep shifting your focus from the breath to your entire body and gradually to the space surrounding you. Rather than concentrating too hard on anything, simply let your mind & body feel the openness and lightness.
- When you are ready, slowly start moving parts of your body and gently open your eyes. Take a moment to reflect on the entire process of Mindful stopping and

notice the calmness it has brought with itself. This process is very liberating especially when our mind is preoccupied with the things bothering us.

Carry on with whatever you're doing but make a conscious effort to assimilate what you've just learned.

Session 5:

Follow-up of Session 4:

The focus of last weeks- Session 4 was understanding how Mindful stopping acts as a solution when stress becomes a problem and how it promotes a response in lieu of impulsive reaction. With continuous practice of Mindful stopping, you will become more proficient in reflecting on your responses before thoughtlessly acting under stressful instances.

As we progress to Session 5 this week, we will delve deeper into understanding difficult emotions, recognizing them, understanding their triggers, knowing when an emotion starts becoming counter-productive for oneself, grasping its effect on our physical & emotional well-being and discover how mindfulness can assist us in dealing with these difficult emotions in a healthy manner.

Dealing with Difficult Emotions:

We experience a range of emotions throughout our life on day-to-day basis. The emotions that we experience range from positive emotions to negative emotions to difficult emotions. Positive emotions like love, joy, hope, gratitude, awe, amusement etc make us optimistic, are pleasurable, make us unbarred to new experiences and ideas, build our resilience, turn us into solution makers and have positive effect on our well-being, whereas negative emotions like sadness, fear, anger, emptiness, helplessness, guilt, loneliness etc make us pessimistic, are unpleasurable, make us miserable, confine us and make us less welcoming to new experiences and ideas, reduce our self-confidence and general contentment. “However, negative emotions are required for people to progress through challenging situations and respond appropriately in the near term.” as explained by Fredrickson (Cohn et al., 2009).

Thus, every emotion that we experience has a purpose and even if it is a negative emotion, it helps us in recognizing problems or warning signs that we may encounter. Anger, for example, might be a signal to protect our physical & emotional boundaries

by being more assertive. Or Fear, for example, might be a signal of imminent danger, a warning sign that we may need to guard and protect ourselves. Hence, negative emotions are equally likely to help us survive as are the positive emotions that we experience but since negative emotions represent all those emotions that we generally dislike, our unconscious response in dealing with such emotions is either to ignore their presence, for example -instead of finding a solution to deal with the negative emotions we keep pushing it under the carpet for as long as possible or else seek an easier alternative that can help us superficially cope with it , for example – getting addicted to technology, drugs etc and that is how negative emotions become difficult emotions for us.

The longer we hold a negative emotion and don't deal with it mindfully, the more difficult it becomes for us.

To quote few examples:

- Anger if not dealt consciously, makes us aggressive.
- Sadness if not dealt consciously, makes us depressed.
- Fear if not dealt consciously, makes us anxious.

Thus, when we get stuck in a negative emotion, we get into problems. As long as we don't get stuck in a negative emotion, it plays a vital function in our lives, but when we do, these emotions become dominant in our lives and begin to take control, and that's when we could probably use some help by being mindful about it and dealing with difficult emotions in a healthier manner by recognising them without any bias and thus making its release more organic.

Activity – Role Play:

I hope, now you all have a firm grasp on what difficult emotions are and how we tend to deal with them. We will now engage in a series of role plays where we will try and understand how a negative emotion becomes a difficult one and we will also indulge ourselves in mindfully recognising our various emotions and naming them which will make us more open to all the diverse emotions that we experience without any judgement and bias.

- ***Role Play: 1 – Understanding how a negative emotion becomes a difficult emotion:***

- I would need all of you to volunteer for this activity.
- I will be placing a thin folder in your hands. Each one of you to hold this folder in your hands for 30 seconds, with your arm stretched out and tell me the weight of this folder.
- Now that all of you have experienced the weight of the folder and concluded that it is very light, I want all of you to imagine this folder as the negative emotion that you experience in your everyday life.
- Now you all will be holding the same folder but for a little longer than you all did before and then we will listen to your experiences.
- Stand comfortably with your one arm stretched forward with your palms facing upside.
- Hold the folder for 120 seconds while keeping that arm stretched forward.
- Think of the folder as a negative emotion that one experience in one's everyday life.
- As experienced by all of you, the folder was light in the beginning but with each passing moment, the weight of the folder kept increasing.

Does anyone of you think that the weight of the folder changed? Clearly – No. What changed then? – the tenure for which we held the folder. The same thing happens with Difficult emotions – the longer you hold on to negative emotions the more difficult they become to deal with.

- ***Role Play: 2 – Recognising Difficult emotions:***

I will be sharing multiple placards displaying different emotions that each one of us might have experienced in our life.

You all will be given a sheet of paper to write down the emotion & the situation where either you have experienced this emotion or might experience this emotion. I have 10 placards depicting emotions, after I show you each placard; you have to write down the depicted emotion and a situation where you have felt this emotion. The next placard will be shown once everyone has written down the answer for the previous

placard. After each placard, I will be sharing the name of the depicted emotion and my personal experience of the depicted emotion.

This activity will help us in mindfully recognising, identifying & accepting our emotions and understanding that each one of us has felt difficult emotions at some point of time in our lives. You can also discuss about these emotions with me or anyone you are comfortable and close with.

Session 6:

Follow-up of Session 5: In last week's Session 5, we recognised and understood difficult emotions and how they become counterproductive to our physical and emotional well-being. We did few activities where we mindfully recognised Jealousy, Shame, Guilt, Fear, Despair, Anxiety, Aggression, Anger, Frustration & Sadness and understood how mindfully recognising them opens us up to these emotions instead of running from them and thus helping us in coming terms with them in a healthier way.

While we are progressing to Session 6 this week, we will understand negative thoughts and how mindfulness can help us in replacing negative thoughts with positive thoughts.

Dealing with Negative thoughts:

As we learnt in the previous section that positive, unpleasant, and challenging emotions are all part of the emotional spectrum we experience. In the same way Negative thoughts are a collection of recurring, ruminative, unproductive cognitive processes that are part of the thinking spectrum that human beings experience. In any case just as we can get stuck with our difficult emotions, we can get stuck by our negative thought process too which eventually alters our emotional landscape and bandwidth. Feeling anxious, frustrated, fearful, sad, jealous, shameful, guilty, unhappy, angry, and wishing certain things to end are some of the examples that negative thought process can lead to. Negative thoughts easily overwhelm and discourage us. Additionally, similar mental patterns are frequently described in psychology as a vicious loop, a mental cycle that we become stuck in and that just keeps spinning round and round which gives these thoughts a high survival spectrum in our thinking process taking up more room in our mental space and as a result of which repressing these thoughts flares them more and repression becomes an ineffective tool in dealing with them and thus more problems arise when we become

locked in negative thinking. Staying in this unchecked loop not only disorients our real life but also impairs our abilities to focus on purposeful behaviour and on what truly matters and thus, as long as we don't get stuck in a negative thought process, it serves a necessary purpose in our lives, but when we do, these thoughts dominate our lives and start to take control. The more negative we think that more difficult it becomes to break the chain of negative thought process and at that point, we probably need some assistance from various mindfulness techniques – the evergreen mindfulness technique of recognising a negative thought, choosing how to react to it becomes very helpful in staying in the present without getting lost in the vicious loop of negative thoughts. The power of observing one's thoughts, giving oneself the power of choice on whether to respond to such thoughts or not and challenging the thinking pattern in a healthier way by recognising them without any bias and replacing them with more positive & productive thought process becomes the key which helps us in effectively regulating our relation with the negative thoughts and improving our emotional well-being.

Technique: Replacing automatic Negative thoughts with Positive thoughts:

Automatic thinking is the term for automatic ideas that result from people's views about the world and themselves. Stream-of-consciousness ideas, which "may take the form of descriptions, inferences, or situation-specific judgments," are what are referred to as automatic thoughts(Șoflău & David, 2017).

Step 1: Identify the Automatic Negative thought and recognise that these thoughts are experienced by everyone at some point in their lives. Allowing negative thoughts without fighting them back will help you in realistically dealing with them.

Step 2: Journalling your negative thought processes and writing down all the emotions that are attached to that thought and then discarding it also allows the person to have a sense of control he/she has on his mind.

Thus, identifying automatic negative thought process mindfully and replacing them with a more positive thought is one sure way to get rid of these thought pattern mindfully.

Session 7:

Follow-up of Session 6: In last week's Session 6, we recognised and understood difficult thoughts and how they affect our physical and emotional well-being. We

learnt how practicing replacing automatic Negative thoughts with Positive ones helps us in regulating ourselves.

While we are progressing to Session 7 this week, we will understand the concept of self-compassion and how it can help us in staying more empathetic with ourselves and the world around us.

Self-Compassion:

As we have learnt so far, practising mindfulness involves intentionally focusing on the present moment without passing judgement, i.e., we intentionally chose to stay in the present moment without judging it. Therefore, we could say that how we relate to something is determined by our attitude towards it. Our attitude can be towards a stranger, a friend, the events of our lives or even towards ourselves.

We all have a particular relationship to what is occurring in our lives and our attitude towards someone else, the events of our lives or towards ourselves stems from it. Thus, to understand Self Compassion, which is responsible for improving our well-being by expanding our sense of compassion and connectedness, we need to cultivate attitudes of love & kindness.

Self-Compassion is giving ourselves the same courtesy we would extend to a friend or a stranger. Instead of being our staunch critic, showing ourselves love & kindness helps us feel more deserving and makes us start to regard ourselves more. Thus, your inner critic can be gently defeated by practising self-compassion on a more regular basis than we usually do and when we practice mindfulness through Loving – Kindness exercises, our attitude will not be to judge thus helping us practice forgiving ourselves instead of punishing us for the mistakes we have made.

Technique: Loving – Kindness Exercises:

Staying mindful with love & kindness, being curious about the critical feeling, understanding its effect on one's body and mind is a powerful tool for increasing awareness, and it can lessen the overwhelming feeling that frequently accompanies self-criticism. Loving-kindness exercises foster connection with ourselves and with others and can be a balm for a number of emotions, including loneliness, fear and anger. During these times, showing oneself love might help you make room for understanding your feelings without judging them.

N.O.T.E Technique by (Hayes, 2022):

To Notice, Observe, Thank, and Engage (N.O.T.E) oneself is a strategy to cultivate awareness and enhance self-relationship.

When you are criticising yourself or are caught in self-blame, the N.O.T.E approach is particularly beneficial. We all seek a friend who is non-judgemental, kind and forgiving, yet, while treating our own selves, we frequently use blame and even punishment instead of being loving and kind towards ourselves.

Today we will learn to how use N.O.T.E technique as the Loving-kindness exercise to cultivate self-compassion in place of self-criticism.

N: Notice:

Whenever we start being harsh to ourselves, Stop and Notice the thoughts and name them. The ability to notice your thoughts and feelings is crucial for maintaining your mental health because what we do not notice changes, and some of what we need to observe calls for a more subtle approach.

O: Observe:

After noticing and naming the thought, observe it. Curiously observe how it feels, the changes it brings in your mind and body. Where do you feel them, do they change or stay the same?

It will be challenging at first to observe it while remaining objective about it. Your emotions and sentiments could seem to be like an unavoidable truth but that's not the reality. Observe it with a stance of non-judgement. Whatever feeling or thought shows up, let it stay without fighting it or resisting it. After all, this is what self-love and kindness is all about.

T: Thank:

After observing, thank your mind. Imagine it as thanking your critic for its opinions. After all opinions are opinions and not necessarily facts. You set an example for a different way of relating when you show loving-kindness to even that portion of yourself which is your harshest bully. Accepting and thanking a part of ourselves which offers strong criticism is an effective tool as it helps you distance yourself from criticism and strengthens your love relationship with yourself.

E: Engage:

After giving your thoughts some gratitude, engage with your surroundings. Your mind will possibly drag you back to judgement, recognize it and then effortlessly put all of your attention into doing something that is important to you and with practice as with any other skill, giving yourself a N.O.T.E will become a habit.

Session 8:

Conclusion of Lessons of the Past 2 Months: In the journey of our past 8 weeks, we as a group of Individuals have tried to understand the concept of Mindfulness, its various techniques and experienced the changes it brings to our State of Mind and Body. While learning of all the discussed concepts and techniques in these sessions was of vital importance, Regular home practice remained an equally vital activity to fully experience the end use of various Mindfulness exercises. We learnt how focussed attention and Awareness practices formed the basis of our Sessions and that Mindfulness is not a Single exercise but brings with it a range of diverse mindful practices.

At the end of our 8 Week session and at the beginning of your Life Long journey with Mindfulness, please share your experiences, challenges and learnings to consolidate your step-by-step progress in this programme.

Post-Assessment:

After the application of the treatment the following questionnaires of the study variables were administered on the orphans to look for their scores after the application of the intervention.

3.6 Statistical Analysis:

To properly analyse the data that were gathered for the current investigation, the following statistics was employed:

1. To study the differences in Perceived stress, Mindfulness, Self-regulation and psychological well-being among the pre- experimental and pre-control groups of institutionalized orphans. Mean, Independent t- test were employed.
2. To find out the difference in pre-control and post-control in Perceived stress, Mindfulness, Self-regulation and psychological well-being of institutionalized orphans. Mean, paired sample t- test were employed.

3. To study the differences in Perceived stress, Mindfulness, Self-regulation and psychological well-being among the post- experimental and post-control groups of institutionalized orphans. Mean, Independent t- test were employed.
4. To find out the difference in pre-experimental and post-experimental in Perceived stress, Mindfulness, Self-regulation and psychological well-being of institutionalized orphans. Mean, paired sample t- test were employed.
5. To examine the relationship between all the outcome variables. Pearson correlations were employed.
6. To find out the parallel mediating effect of mindfulness and self-regulation in relationship between perceived stress and psychological wellbeing of institutionalized orphans after receiving the intervention. Regressions by SPSS Amos were employed.
7. In order to find the differences among the male and female institutionalized orphans with regard to their Perceived Stress, Mindfulness, Self-regulation and psychological wellbeing. Mean, t-test was employed.

3.7 Ethical Issues:

Ethical guidelines are the principles that guide the researcher to protect the integrity of the research. Following are the guiding principles that were observed by the researcher:

1. Confidentiality of the information was maintained.
2. The head/caretaker of the relevant orphanages provided written informed consent.
3. Assent form was signed from the orphans before filling the questionnaires.
4. Voluntary participation was required from the participants. They could leave the study at any point in time.
5. Intervention was administered to the control group after follow up assessment.

4. RESULTS AND DISCUSSION:

After data is gathered, the crucial stage in doing psychological research is to analyse, discuss, and draw conclusions from the data in order to create a meaningful representation of the unprocessed information that was gathered. The data obtained from institutionalized orphans was tabulated with regards to the variables assessed in the present study. Unless a researcher classifies data methodically, conducts scientific analyses, makes intelligent interpretations, and draws reasoned conclusions, data is just a worthless collection of facts. The statistical software for social sciences (SPSS) was used to enter the data acquired for the current study and analyse it using a variety of descriptive and inferential statistical tests. The result of this study was analysed quantitatively with the help of SPSS version 26.

The following acronym has been used in this chapter:

ACRONYM	**DESCRIPTION**
t	Student's 't' statistics
MBSR	Mindfulness Based Stress Reduction
p	Probability value
N	Number of participants
S.D	Standard Deviation
M	Mean Value
x^2	Chi-Square
S.E.M	Standard Error of Mean
r	Pearson's Correlation Coefficient
η^2	Eta Square
b	Estimates
P.S	Perceived Stress
M	Mindfulness
S.R	Self-Regulation
S.T(S. R)	Short- term Self- Regulation

L.T(S. R)	Long-term Self-Regulation
P.W.B	Psychological Well-Being
S(I)	Satisfaction
E(II)	Efficiency
SO(III)	Sociability
M.H(IV)	Mental Health
I.R(V)	Interpersonal- Relations

The data acquired for the current study included pre-and post-test scores in perceived stress, regulation of self, well-being, and mindfulness. To make sense of them, they have been examined using the following statistical techniques.

The demographic profiles of the sample were constructed based on the personal information that the respondents gave. The means of the outcome variables between the treatment and non-treatment groups were compared using an independent sample t-test prior to the introduction of the mindfulness-based stress reduction intervention. A paired sample t-test was used to assess the mean difference between before &after test scores for all outcome variables for both the group of institutionalised orphans. Only then, following the administration of the mindfulness-based stress reduction intervention was an independent sample t-test used to compare the gains on all of the outcome variables for the two groups. The findings are reported here along with their interpretation.

4.1 Pre-Test & Post- Test Scores of Experimental Group & Control Group of the Study:

The results of the pre-test scores of Institutionalized orphans are examined in this section to determine whether there are any significant differences amidst the experimental and control groups with regard to a number of outcome variables, such as perceived stress, mindfulness, self-regulation and psychological well-being. Before implementing the MBSR intervention, several tests were run to make sure the two comparable groups were homogeneous in nature. The information below indicates the outcomes of the independent sample t-test (pre-test scores) between the treatment group and the control group. The analysis also examines institutionalized orphan's pre- and post-test results to see if any significant differences between them exist on

various outcome study variables. These tests were performed to see if, following the implementation of the MBSR intervention, the post-experimental group had improved relative to the pre-experimental and post-control groups in terms of perceived stress, mindfulness, self-regulation and psychological well-being. The following section shows results of paired t-test for before-after experimental and before-after control groups. In addition, following section also shows the independent t-test results.

4.1.1 Sample Characteristics of Experimental & Control Group of Institutionalized Orphans:

In order to examine the differences between both the group of institutionalized orphans of Jammu & Kathua district, the sample of 108 orphans were randomly divided into experimental and control group with 54 in each group. Table 4.1 displays the characteristic of sample such as age, location, period of stay and gender.

Table 4.1

Distribution of Socio- demographic variables i.e., Gender, Period of stay, Age and Location of Institutionalized Orphans in Experimental & Control group.

Variable	Experimental Group N (%)	Control Group N (%)
Gender		
Male	17(31.5%)	25(46.3%)
Female	37(68.5%)	29(53.7%)
Period of Stay		
6months-2 years	18(33.3%)	22(40.7%)
3 years-5 years	18(33.3%)	18(33.3%)
6 years- 8 years	18(33.3%)	14(25.9%)
Age (in years)		
10	11(20.4%)	09(16.7%)
11	08(14.8%)	10(18.5%)
12	09(16.7%)	12(22.2%)
13	13(24.1%)	12(22.2%)
14	13(24.1%)	11(20.4%)
Location		
Rural	44(81.5%)	38(70.4%)
Urban	10(18.5%)	16(29.6%)
Total	54	54

The table4.1 describes the frequency and percentage distribution of the socio-demographic variable in treatment and control group. With regards to the distribution of gender in experimental & control group, majority 37 (68.5%) and 29 (53.7%) were females respectively, in contrast 17 (31.5%) and 25 (46.3%) were males respectively.

As for the distribution of the period of stay at the orphanage in experimental & control group, it was found that majority 18 (33.3%) and 22 (40.7%) were found to stay between 6months to 2 years followed by 18 (33.3%) & 18 (33.3%) between 3-5 years and 18 (33.3%) & 14 (25.9%) between 6-8 years.

With regard to the distribution of age in experimental & control group majority belonged to 13years (24.1% & 22.2%) & 14 years (24.1% &20.4%) followed by (16.7% & 22.2%) belonging to age 12 years, followed by (14.8% & 18.5%) to age 11 years and (20.4% & 16.7%) belonging to 10 years.

Considering the location in experimental & control group, majority 44(81.5%) and 38(70.4%) belonged to rural area whereas, 10 (18.5%) and 16 (29.6%) belonged to urban area.

To Determine the homogeneity of two groups at baseline independent t-test was administered for continuous variable i.e., Age & Period of stay in my study and chi-square test for categorical variable i.e., Location & Gender in order to determine that whether both the experimental group (MBSR) & control group were comparable at baseline on all the socio-demographic variables examined in my study. Following table4.2and 4.3depicts the same:

Table 4.2

Mean, S.D & Results of Independent t-test to compare Age, Period of stay of orphans in Experimental & the Control group.

Variable	Group	N	Mean	S. D	t-value	p-value
Age(in years)	Experimental	54	12.17	1.47	.202	.84
	Control	54	12.11	1.38		
Period of stay (in years)	Experimental	54	4.00	2.59	.802	.42
	Control	54	3.61	2.44		

p> .05

According to table4.2 it was found that orphans in both the groups were comparable with respect to the age and period of stay. The mean value of age & period of stay of

orphans was 12.17years, 4years and 12.11years, 3.61years in experimental & control group respectively. The t-value indicates that there is no significant difference between the two respective groups in terms of age and period of stay.

In table 4.3 with regard to location in experimental & control group, majority 44(81.5%) and 38(70.4%) belonged to rural area whereas, 10 (18.5%) and 16 (29.6%) belonged to urban area. On Gender, majority 37 (68.5%) and 29 (53.7%) were females, in contrast 17 (31.5%) and 25 (46.3%) were males. While computing Chi-square test it was revealed that there was insignificant difference between the two respective groups in terms of location & gender.

Table 4.3

Result of Chi-square test to compare Location & Gender of orphans in experimental & control group.

Variables	Category	Experimental Group		Control Group		x^2	p-value
		N (54)	%	N (54)	%		
Location	Rural	44	81.5%	38	70.4%	1.823	.26
	Urban	10	18.5%	16	29.6%		
Gender	Male	17	31.5%	25	46.3%	2.493	.16
	Female	37	68.5%	29	53.7%		

p> .05

4.1.2 Comparison of Experimental Group & Control Group on Perceived Stress, Mindfulness, Self-Regulation with its types and Psychological Well-Being with its Dimensions at the Pre-Test Phase:

The first objective of the study is "to examine the effect of MBSR on perceived stress, mindfulness, self-regulation and psychological well-being of Institutionalized orphans". This analysis is related to experimental group and control group on perceived stress, mindfulness, self-regulation and psychological well-being at the pre-test phase and has been presented below. The table 4.4 shows the means, standard deviations, standard error of mean, t-values and p-value of both the groups at the pre-test phase.

An Independent t-test was administered to compare the Perceived stress, Mindfulness, Self-Regulation with its types & Psychological well-being with its dimensions for Experimental & Control group at the pre-test phase and the findings revealed as portrayed in table 4.4 that there was an insignificant differences amidst experimental

group and control group at the pre-test phase on perceived stress with Mean value 31.22 of experimental group & Mean value 31 of control group with t-value 0.40 (p > .05), mindfulness with Mean value 2.80 of experimental group & Mean value 3 of control group with t-value 1.24 (p > .05), short-term self-regulation with Mean value 30.11 of experimental group & Mean value 29.98 of control group with t-value 0.13 (p> .05), long-term self-regulation with Mean value 42.26 of experimental group & Mean value 41.61 of control group with t-value 0.26 (p> .05), total self-regulation with Mean value 94.26 of experimental group & Mean value 94.09 of control group t-value 0.04 (p > .05).

Table 4.4

t-value of experimental group and control group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions at the pre-test phase.

Variables	Group	Mean	S. D	S.E.M	t-value	p-value
P. S	Experimental	31.22	2.88	0.54	0.40	.68
	Control	31.00	2.78			
M	Experimental	2.80	0.81	0.16	1.24	.21
	Control	3.00	0.85			
S.T (S. R)	Experimental	30.11	5.39	0.94	0.13	.89
	Control	29.98	4.36			
L.T (S. R)	Experimental	42.26	12.67	2.43	0.26	.79
	Control	41.61	12.61			
S. R	Experimental	94.26	19.43	3.85	0.04	.96
	Control	94.09	20.57			
S(I)	Experimental	26.74	13.21	2.47	0.01	.98
	Control	26.70	12.53			
E(II)	Experimental	25.48	12.31	2.39	0.10	.91
	Control	25.22	12.59			
SO(III)	Experimental	25.98	13.51	2.47	0.59	.55
	Control	24.51	12.13			
M.H(IV)	Experimental	25.44	12.37	2.27	0.17	.85
	Control	25.03	11.24			
I.R(V)	Experimental	24.61	11.51	2.26	0.008	.99
	Control	24.59	12.0			
P.W.B. S	Experimental	128.25	56.1	10.30	0.21	.83
	Control	126.07	50.84			

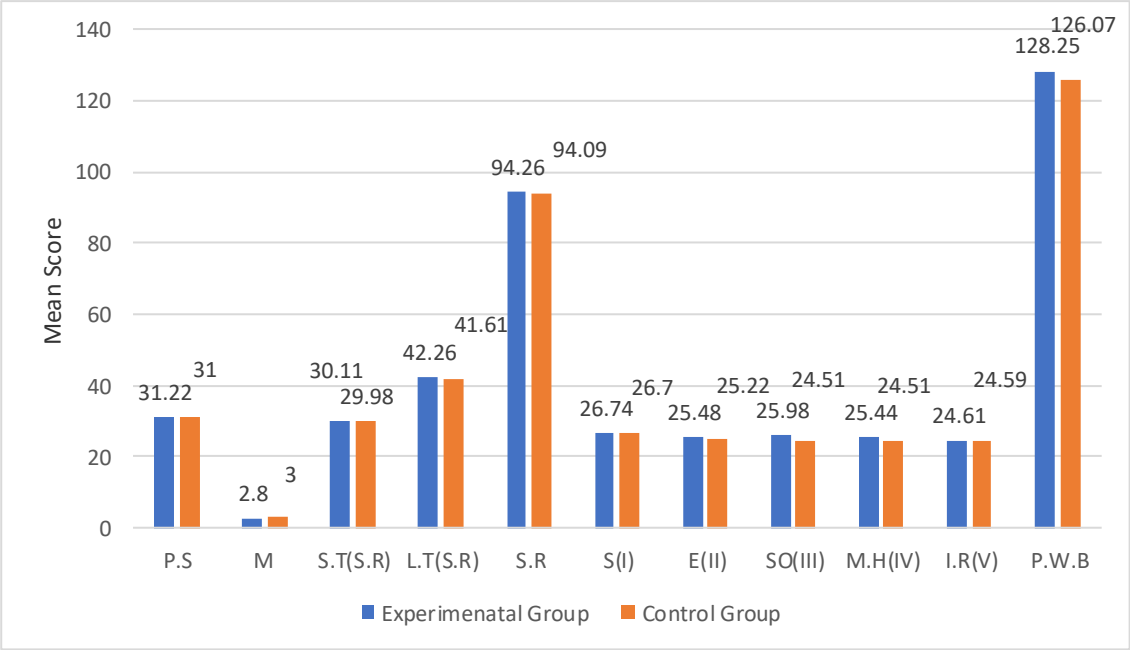
p> .05, N= 108

Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale.*

Furthermore, the results of the dimensions of well-being namely, satisfaction with Mean value 26.74 of experimental group 26.70 of control group with t-value 0.01 (p> .05), efficiency with Mean value 25.48 of experimental group & Mean value 25.22 of control group with t-value 0.10 (p> .05), sociability with Mean value 25.98 of experimental group & 24.51 of control group with t-value 0.59 (p> .05), mental health with Mean value 25.44 of experimental group & 24.51 of control group with t-value 0.17 (p> .05), interpersonal relations with Mean value 24.61 of experimental group & 24.59 of control group with t-value 0.008 (p> .05) and total psychological well-being with Mean value 128.25 of experimental group & Mean value 126.07 of control group with t-value 0.21 (p > .05). The end result showed that both the treatment & control group were similar with regard to Perceived stress the reason being that institutionalized orphan taken in the study were those who were screened for high perceived stress for both experimental and control group. They were also similar with respect to Mindfulness, Self-Regulation with its types& Psychological well-being with its dimensions at baseline or pre-test phase the reason can be attributed to homogeneity of the sample and the random assignment of participants to both the group. Moreover, following figure 4.1shows the mean score of both the group on all the variables under study at pre-test phase.

Figure 4.1

Mean scores of perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions of experimental & control group at the pre-test phase.



Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale. Source: own data.*

4.1.3 Comparisons of Pre-Control Group & Post-Control Group on Perceived Stress, Mindfulness, Self-Regulation with its types and Psychological Well-Being with its Dimensions:

The analysis is related to pre-control and post-control group on perceived stress, mindfulness, self-regulation and psychological well-being has been presented in the table4.5that shows the means, standard deviations, standard error of mean, t-values& p-value of pre-control group and post-control group.

Table 4.5

t-value of pre & post control group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions.

Variables	Control Group	Mean	S. D	S.E.M	t-value	p-value
P. S	Pre-test	31.00	2.78	0.44	1.05	.29
	Post-test	30.54	3.31			
M	Pre-test	3.00	0.85	0.07	1.49	.14
	Post-test	3.11	0.98			
S.T (S. R)	Pre-test	29.98	4.36	0.94	0.43	.66
	Post-test	29.57	5.55			
L.T (S. R)	Pre-test	41.61	12.61	0.96	1.58	.12
	Post-test	40.09	12.69			
S. R	Pre-test	94.09	20.57	1.74	0.08	.93
	Post-test	93.94	18.72			
S(I)	Pre-test	26.70	12.53	1.50	1.50	.13
	Post-test	24.44	12.86			
E(II)	Pre-test	25.22	12.59	1.45	0.62	.53
	Post-test	26.12	12.34			
SO(III)	Pre-test	24.51	12.13	1.14	0.92	.36
	Post-test	25.57	11.52			
M.H(IV)	Pre-test	25.03	11.24	1.03	0.62	.53
	Post-test	24.38	11.75			
I.R(V)	Pre-test	24.59	12.00	1.06	0.12	.90
	Post-test	24.46	11.92			
P.W.B. S	Pre-test	126.07	50.84	4.32	0.10	.91
	Post-test	125.61	56.26			

p>.05, N= 54

Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale*

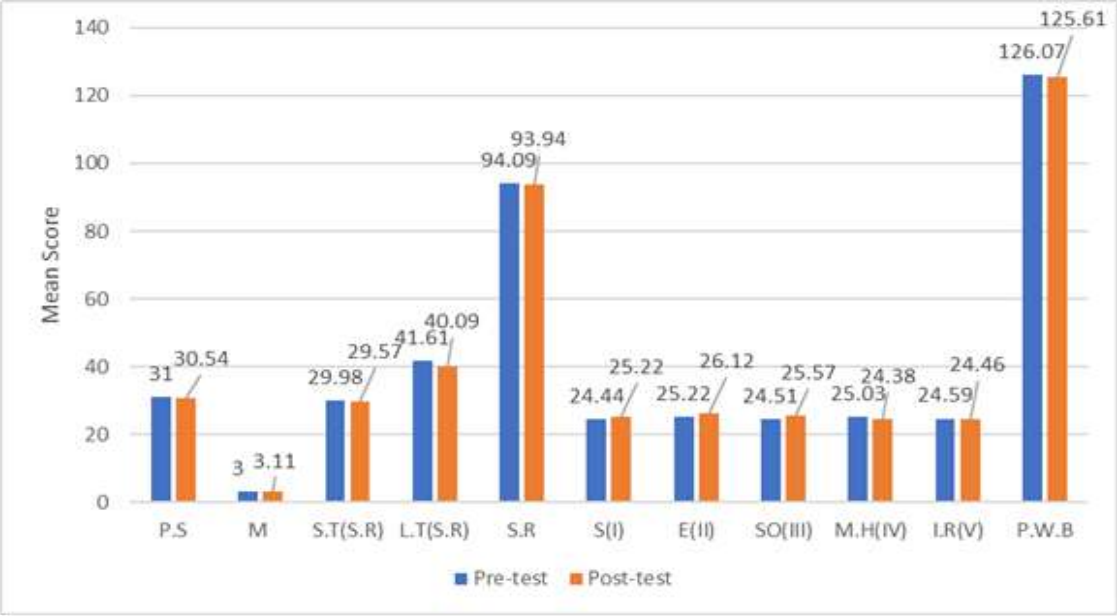
A Paired sample t-test was administered to compare the Perceived stress, Mindfulness, Self-Regulation & Psychological well-being for pre & post control

group and the results of the study revealed as portrayed in table 4.5 that there is statistically no difference on perceived stress with t-value 1.05 (p> .05), mindfulness with t-value 1.49 (p> .05), short-term self-regulation with t-value 0.43 (p>.05), long-term self-regulation with t-value 1.58 (p> .05), total self-regulation with t-value 0.08 (p> .05). Likewise, the scores of the dimensions of psychological well-being namely, satisfaction with t-value 1.50 (p>.05), efficiency with t-value 0.62 (p>.05), sociability with t-value 0.92 (p>.05), mental health with t-value 0.62 (p>.05), interpersonal relations with t-value 0.12 (p>.05) and total psychological well-being t-value 0.10 (p > .05).

Thus, the result suggested that institutionalized orphans who were part of the control group didn't show any statistical change on all the variables pre and post phase. The reason being that control group didn't receive the intervention, whereas the experimental group were receiving the MBSR intervention. Figure4.2 depicts the mean score of pre-control and post-control group on perceived stress, mindfulness, self-regulation with its types and psychological well-being with its dimensions.

Figure 4.2

Mean scores of pre & post control group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions. Source: own data.



Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II);*

efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale. Source: own data.

4.1.4 Comparisons of Pre-Experimental Group & Post-Experimental Group on Perceived Stress, Mindfulness, Self-Regulation with its types and Psychological Well-Being with its Dimensions:

The analysis is related to pre-experimental group and post-experimental group on perceived stress, mindfulness, self-regulation and psychological well-being has been presented below. The table 4.6 shows the means, standard deviations, standard error of mean, and t-values of pre-experimental group and post-experimental group.

Table 4.6

t-value of pre and post experimental group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions.

Variables	Experimental Group	Mean	S. D	S.E.M	t-value	p-value
P. S	**Pre-test**	31.2	2.88	0.52	26.1	.00**
	Post-test	17.4	3.57			
M	**Pre-test**	2.80	0.81	0.14	10.4	.00**
	Post-test	4.36	0.59			
S.T (S. R)	**Pre-test**	30.1	5.39	1.04	3.45	.00**
	Post-test	33.7	5.51			
L.T (S. R)	**Pre-test**	42.2	12.6	1.74	7.42	.00**
	Post-test	55.2	0.93			
S. R	**Pre-test**	94.2	19.4	2.58	5.69	.00**
	Post-test	109.0	2.57			
S(I)	**Pre-test**	26.74	13.21	2.06	6.34	.00**
	Post-test	39.83	6.51			
E(II)	**Pre-test**	25.48	12.31	1.87	7.92	.00**
	Post-test	40.33	5.92			
SO(III)	**Pre-test**	25.98	13.51	2.05	5.92	.00**
	Post-test	38.12	6.46			
M.H(IV)	**Pre-test**	25.44	12.37	1.94	5.24	.00**
	Post-test	35.64	6.17			
I.R(V)	**Pre-test**	24.61	11.51	1.70	9.19	.00**
	Post-test	40.29	6.05			
P.W.B. S	**Pre-test**	128.2	56.1	8.39	7.85	.00**
	Post-test	194.2	26.1			

**p<.01, N=54

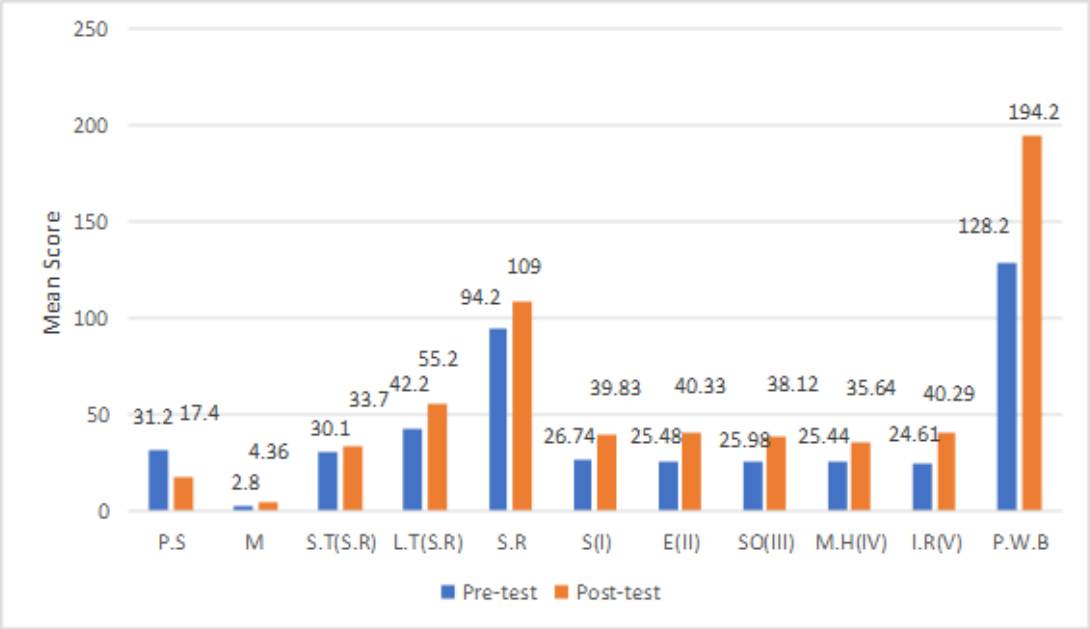
Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale*

A Paired sample t-test was conducted to compare the Perceived stress, Mindfulness, Self-Regulation & Psychological well-being for pre & post experimental group and the results of the study revealed as portrayed in table 4.6 that there is statistical difference on perceived stress with t-value 26.1 ($p<.01$), mindfulness with t-value 10.4 ($p<.01$), short-term self-regulation with t-value 3.45 ($p<.01$), long-term self-regulation with t-value 7.42 ($p<.01$), total self-regulation with t-value 5.69 ($p<.01$), likewise, the scores of the dimensions of psychological well-being namely, satisfaction with t-value 6.34 ($p<.01$), efficiency with t-value 7.92 ($p<.01$), sociability with t-value 5.92 ($p<.01$), mental health with t-value 5.24 ($p<.01$), interpersonal relations with t-value 9.19 ($p<.01$) and total psychological well-being t-value 7.85 ($p<.01$). Thus, the result of my study suggested that institutionalized orphans who were part of the MBSR intervention displayed statistically significant change on perceived stress, the reason for a significant difference between experimental group pre and post-test was the introduction of the intervention which provided many exercises wherein, dealing with perceived stress mindfully was practised which proved helpful in alleviating perceived stress among orphans, there was also a significant difference on mindfulness, self-regulation and its types and psychological well-being with its dimensions pre experimental and post experimental because MBSR intervention is designed in a way which helps in increasing mindfulness in everyday life and being mindful regarding one's thoughts, emotions and behaviour surely helps one regulate it in a long-term which improves satisfaction with life, improves mental health, enhances one's efficiency, builds on social support, interpersonal relations and improves overall well-being.

Following figure 4.3 depicts the mean score of pre-experimental and post-experimental group on perceived stress, mindfulness, self-regulation and psychological well-being.

Figure 4.3

Mean score of pre and post experimental group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions.



Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale.* Source: own data.

Further Eta Square(η^2) for pre & post experimental group was calculated for all the outcome variables to find out the magnitude of the significance level (Cohen, J. 1988). The calculated eta square as mentioned in table 4.7was foundη^2= 0.92, 0.67, 0.18, 0.50, 0.37, 0.43, 0.54, 0.39, 0.34, 0.61,0.53 for perceived stress, mindfulness, short-term self-regulation, long-term self-regulation, self-regulation, satisfaction(I), efficiency (II), sociability (III), mental health (IV), interpersonal relations(V) and psychological well-being respectively. In all the outcome variables as mentioned in table 4.7 it is obvious that there is a large magnitude of effect between perceived stress, mindfulness, self-regulation & its types and well-being & its dimensions with regard to pre-post experimental group.

Table 4.7

Eta Square of Pre-Post Experimental Group on Perceived stress, Mindfulness, Self-Regulation with its types and psychological well-being with its dimensions.

Variable	η^2	Effect size (Interpretation)
P. S	0.92	Large Effect
M	0.67	Large Effect
S.T (S. R)	0.18	Large Effect
L.T (S.R)	0.50	Large Effect
S. R	0.37	Large Effect
S(I)	0.43	Large Effect
E(II)	0.54	Large Effect
SO(III)	0.39	Large Effect
MH(IV)	0.34	Large Effect
IR(V)	0.61	Large Effect
P.W. B	0.53	Large Effect

Note: P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale

4.1.5 Comparison of Post-Experimental Group and Post-Control Group on Perceived Stress, Mindfulness, Self-Regulation with its types and Psychological Well-Being with its Dimensions of Institutionalized Orphans:

This analysis is related to experimental group and control group on perceived stress, mindfulness, self-regulation and psychological well-being at the post-test phase and has been presented below. The table4.8 shows the means, standard deviations, standard error of mean, and t-values of experimental group and control group at the post-test phase.

Table 4.8

t-value of experimental group and control group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions at the post-test phase.

Variables	Group	Mean	S. D	S.E.M	t-value	p-value
P. S	Experimental	17.1	3.99	0.73	16.0	.00**
	Control	28.8	3.61			
M	Experimental	4.36	0.59	0.15	7.99	.00**
	Control	3.11	0.98			
S.T (S. R)	Experimental	33.7	5.51	1.06	3.87	.00**
	Control	29.5	5.55			
L.T (S. R)	Experimental	55.2	0.93	1.73	8.72	.00**
	Control	40.1	12.6			
S. R	Experimental	109.0	2.57	2.57	5.85	.00**
	Control	93.9	18.7			
S(I)	Experimental	39.83	6.51	1.91	7.72	.00**
	Control	25.05	12.45			
E(II)	Experimental	40.33	5.92	1.86	7.62	.00**
	Control	26.12	12.34			
SO(III)	Experimental	38.12	6.46	1.79	6.98	.00**
	Control	25.57	11.52			
M.H(IV)	Experimental	35.64	6.17	1.80	6.23	.00**
	Control	24.38	11.75			
I.R(V)	Experimental	40.29	6.05	1.82	8.70	.00**
	Control	24.46	11.92			
P.W.B. S	Experimental	194.2	26.1	8.44	8.13	.00**
	Control	125.6	56.2			

**p<.01, N=108

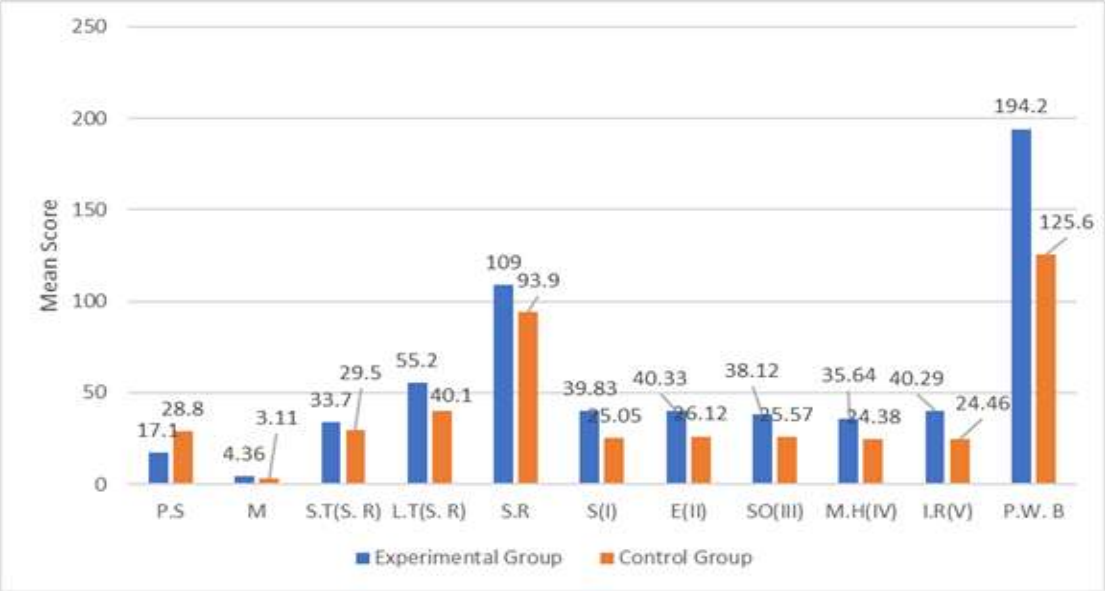
Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale*

An Independent sample t-test was conducted to compare the Perceived stress, Mindfulness, Self-Regulation & Psychological well-being for Experimental & Control group at the post-test phase and the results of the study revealed as portrayed

in table4.8 that there was a significant differences between experimental group and control group at the post-test phase on perceived stress with Mean value 17.1 of experimental group & Mean value 28.8 of control group with t-value 16.0 (p<.01), mindfulness with Mean value4.36 of experimental group & Mean value 3.11 of control group with t-value 7.99(p<.01), short-term self-regulation with Mean value 33.7 of experimental group & Mean value 29.5 of control group with t-value 3.87 (p<.01), long-term self-regulation with Mean value 55.2 of experimental group & Mean value 40.1 of control group with t-value 8.72 (p<.01), total self-regulation with Mean value 109 of experimental group & Mean value 93.9 of control group t-value 5.85 (p<.01). Furthermore, the results of the five dimensions of psychological well-being namely, satisfaction with Mean value 39.83 of experimental group 25.05 of control group with t-value 7.72 (p<.01), efficiency with Mean value 40.33 of experimental group & Mean value 26.12 of control group with t-value 7.62 (p<.01), sociability with Mean value 38.12 of experimental group &25.57 of control group with t-value 6.98 (p<.01), mental health with Mean value 35.64 of experimental group &24.38of control group with t-value 6.23 (p<.01), interpersonal relations with Mean value 40.29 of experimental group &24.46 of control group with t-value 8.70 (p<.01), and total psychological well-being with Mean value 194.2of experimental group & Mean value 125.6of control group with t-value 8.13 (p<.01). The end result showed that both the treatment & control group were not similar with regard to Perceived stress, Mindfulness, Self-Regulation & Psychological well-being at post-test phase. The reason for both the groups to not have similar or significant results was that the control group was not provided with any intervention and the only difference that can be seen on both the groups on their perceived stress, mindfulness, self-regulation with its types and psychological well-being with its sub-dimensions is because of the introduction of MBSR intervention to the experimental group. Moreover, figure4.4 shows the mean score of both the group on all the variables under study at post-test phase.

Figure 4.4

Mean score of experimental group and control group on perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions at the post-test phase.



Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale.* Source: own data.

Further Eta Square(η^2) for post experimental& control group was calculated for all the outcome variables in order to find out the magnitude of the significance level(Cohen, J. 1988). The calculated eta square as mentioned in table 4.9 was found η^2= 0.70, 0.37, 0.12, 0.41, 0.24, 0.35, 0.35, 0.31, 0.26, 0.41, 0.38 for perceived stress, mindfulness, short-term self-regulation, long-term self-regulation, self-regulation, satisfaction(I), efficiency (II), sociability (III), mental health (IV), interpersonal relations(V) and psychological well-being respectively. In all the outcome variables as mentioned in table 4.9 it is obvious that there is a large magnitude of effect between perceived stress, mindfulness, long-term self-regulation, self-regulation, satisfaction(I), efficiency (II), sociability (III), mental health (IV), interpersonal relations(V) and psychological well-being with regard to post experimental & control group, while the effect size of short-term self-regulation with regard to post experimental & control group is moderate.

Table 4.9

Eta Square of Post Experimental & Post Control Group on Perceived stress, Mindfulness, Self-Regulation with its types and psychological well-being with its dimensions.

Variable	η^2	Effect size (Interpretation)
P. S	0.70	Large Effect
M	0.37	Large Effect
S.T (S. R)	0.12	Moderate Effect
L.T (S.R)	0.41	Large Effect
S. R	0.24	Large Effect
S(I)	0.35	Large Effect
E(II)	0.35	Large Effect
SO(III)	0.31	Large Effect
MH(IV)	0.26	Large Effect
IR(V)	0.41	Large Effect
P.W. B	0.38	Large Effect

Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale.*

4.1.6 Practice of Mindfulness Meditation by Institutionalized Orphans

This analysis presents the findings related to the practice of mindfulness activities. Information was obtained from MBSR group regarding regularity of mindful practice, degree of awareness and satisfaction level after the practice. Figure 4.5 and Figure 4.6 shows graphical representation of the average duration and degree of awareness of institutionalized orphans belonging to the MBSR group regarding home based mindful activities across eight sessions. It was found that the average duration of practicing MBSR based interventions among the MBSR group showed a consistent

increase over the period of 2 months. Similarly, figure 4.6 depicts an increase in the average awareness of the MBSR group.

Figure 4.5

Showing the Average duration of minutes across 8 sessions

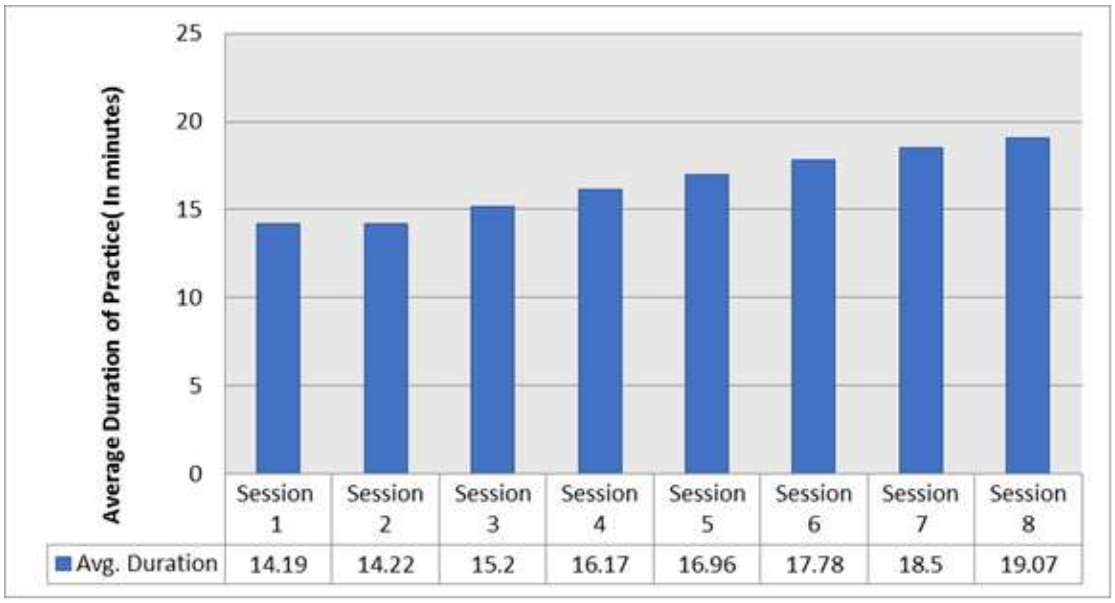
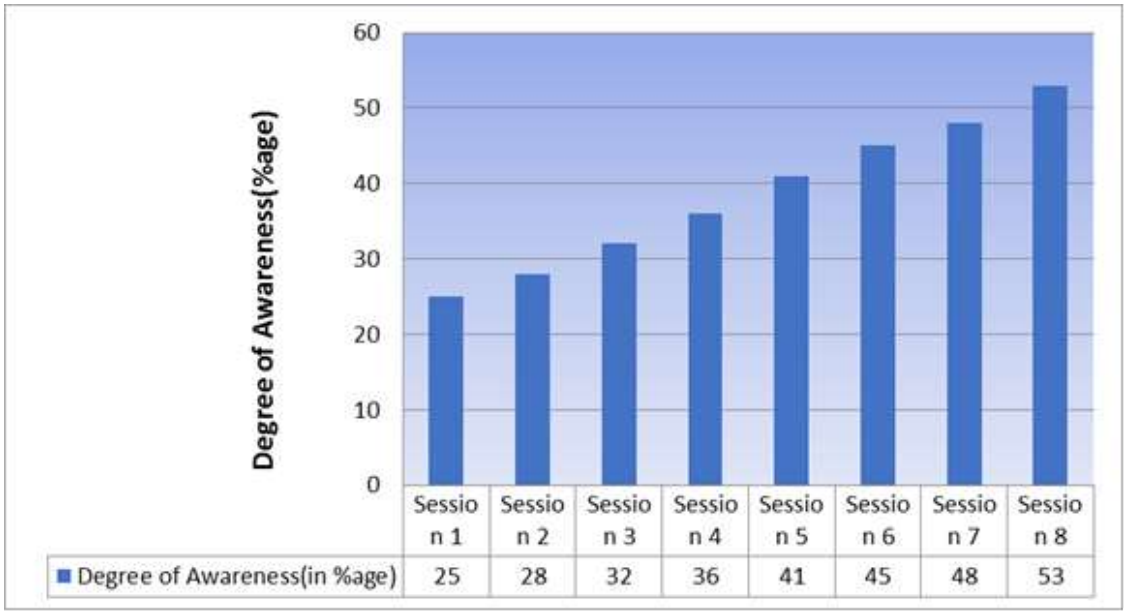


Figure 4.6

Showing the Degree of Awareness across 8 sessions



4.2 Correlations:

Person correlation analysis was performed to measure the strength and direction between all the outcome variables of the study of Institutionalized orphans having high perceived stress level and the findings are shown in table4.10:

It shows that perceived stress has a negative and moderate correlation with mindfulness (r = -.485), which means that increase in perceived stress will decrease mindfulness among the respondent. The perceived stress has a negative & moderate correlation with short-term self-regulation (r = -.327), with long-term self-regulation (r = -.571) and with total self-regulation (r = -.425) which indicates that as perceived stress increases, self-regulation & its types tend to decrease. The association amidst perceived stress & psychological well-being with its dimensions is also inversely proportional with one another namely satisfaction (r = -.537), efficiency (r = -.525), sociability (r = -.476), mental health (r = -.416), interpersonal relations (r = -.531) and total psychological well-being (r = -.528). The mindfulness has positive but weak relationship with short-term self-regulation (r = .298) but has positive and moderate relationship with long-term self-regulation (r = .589), total self-regulation (r = .462) and psychological well-being with its dimensions namely satisfaction (r = -.533), efficiency (r = -.557), sociability (r = -.533), mental health (r = -.584), interpersonal relations (r = -.556) and total psychological well-being (r = .584) which indicates that as mindfulness increases there is an increase in self -regulation & psychological well-being of the respondents. The total self- regulation has positive and moderate relation with total psychological well-being (r = .458) stating that as there is an increase in total self-regulation, there is an increase in total psychological well-being.

Variables	M	S. D	P. S	M	S.T(S. R)	L.T(S. R)	S. R	S(I)	E(II)	SO (III)	M.H(IV)	I.R(V)	P.W.B
1. P. S	22.9	7.0	_										
2. M	3.7	1.0	-.485**	_									
3. S.T(S. R)	31.6	5.8	-.327**	.298**	_								
4. L.T(S. R)	47.6	11.7	-.571**	.589**	.382**	_							
5. S. R	101.5	15.3	-.425**	.462**	.330**	.824**	_						
6. S(I)	32.4	12.4	-.537**	.533**	.248**	.546**	.422**	_					
7. E(II)	33.2	11.9	-.525**	.557**	.238**	.520**	.385**	.893**	_				
8. SO (III)	31.8	11.2	-.476**	.533**	.268**	.529**	.446**	.866**	.904**	_			
9. M.H (IV)	30.0	10.9	-.416**	.584**	.273**	.532**	.415**	.849**	.824**	.844**	_		
10. I.R(V)	32.4	12.3	-.531**	.556**	.237**	.566**	.494**	.863**	.874**	.892**	.854**	_	
11. P.W. B	159.9	55.6	-.528**	.584**	.267**	.570**	.458**	.948**	.952**	.953**	.923**	.950**	–

Table 4.10*Correlation Analysis*

** p< .01; N= 108

Note: *P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale*

4.3 Mediation:

Mediation analysis was performed by using SPSS AMOS to investigate the mediating effect of mindfulness and self-regulation in relationship amidst perceived stress and psychological wellbeing of institutionalized orphans.

Table 4.11

Mediation Analysis Summary

Relationship	Direct effect	Indirect effect	Confidence Interval		p-value	Conclusions
			Lower bound	Upper bound		
P.S>M>PWB		-1.432	-2.473	-0.721	.004*	
	-2.19 (0.002)					Partial Mediation
P.S>S. R>PWB		-0.568	-1.33	-0.015	.03*	

*p<.05, N=108

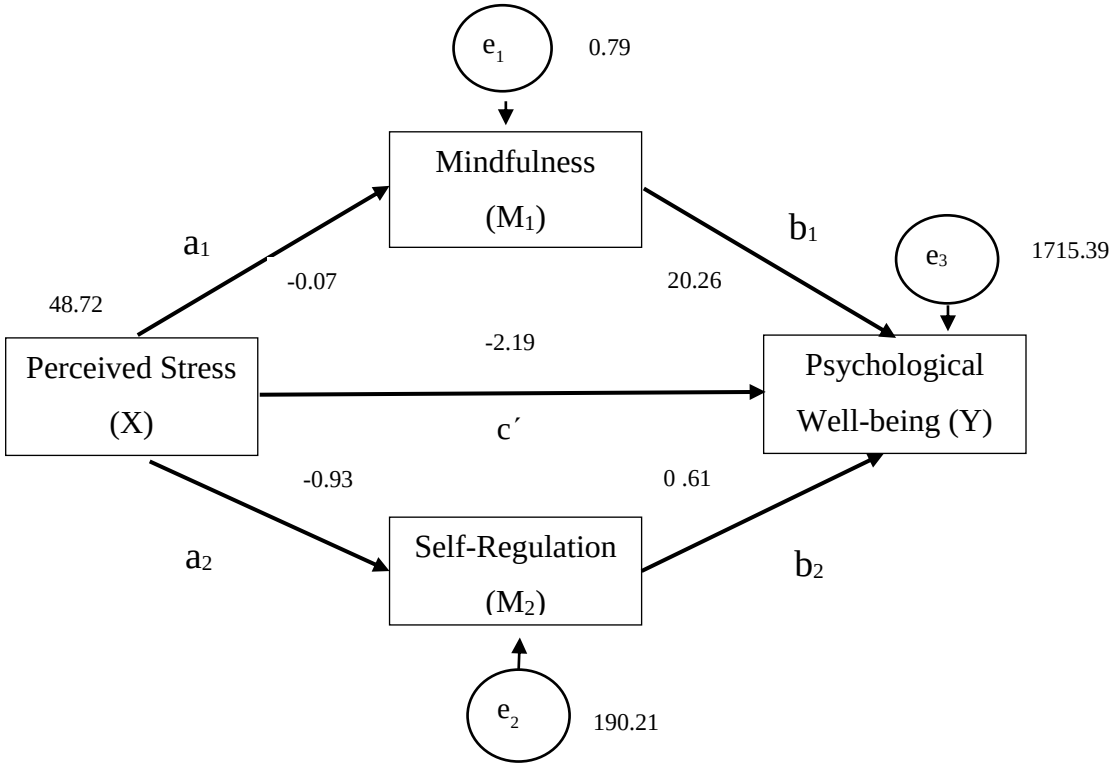
Note: *P.S; perceived stress, M; mindfulness, S.R; self-regulation, PWBS; psychological well-being scale.*

As presented in table 4.11, the results revealed significant indirect effect of perceived stress (X) on psychological well-being (Y) through mindfulness (M_1) [b= -1.432, p=0.004]. Analysing the mediating role of self-regulation(M_2), the study found a significant mediating role of self-regulation (M_2) on the linkage between perceived stress (X) & psychological well-being (Y) [b= -0.568, p= 0.03]. Furthermore, the direct effect of perceived stress (X) on psychological well-being (Y) in the presence of both the mediators was also found to be significant (b= -2.189, p= 0.002). Hence, mindfulness (M_1) & self-regulation (M_2) partially mediated the relationship between perceived stress (X) & psychological well-being (Y).

Figure 4.7 represents the statistical diagram of the mediation analysis:

Figure 4.7

Statistical Diagram.



Source: own data

4.4 Gender Difference:

t-test and mean were employed in order to find the differences among the male and female institutionalized orphans with regard to their Perceived Stress, Mindfulness, Self-regulation and psychological wellbeing.

Table 4.12 signifies the mean difference among male and female institutionalized orphans on perceived stress with t-value 1.02 which was insignificant with Mean value 23.8 for males and Mean value 22.3 for females. Likewise, the t-value on mindfulness was t-value 0.58 which was found to be insignificant with Mean value 3.66 for males & Mean value 3.78 for females. Similarly, the t-value on short term self-regulation was t- value 1.04 which was insignificant with Mean value 32.3 for males & Mean value 31.1 for females. With respect to long term self-regulation the t-value 0.18 which was insignificant with Mean value 47.3 for males & 47.8 for females. With respect to total self-regulation the t-value 0.16 which was found to be

insignificant with Mean value 101.16 for males & 101.66 for females. Similarly, the t-value on satisfaction was t-value -0.87 which was found to be insignificant with Mean value 31.14 for males & Mean value 33.27 for females. Likewise, the t-value on efficiency was t-value -0.93 which was insignificant with Mean value 31.88 for males & Mean value 34.09 for females. Furthermore, the t-value on sociability was t-value -0.55 which was insignificant with Mean value 31.09 for males & Mean value 32.33 for females. With respect to mental health the t-value 0.10 & p-value 0.91 which was insignificant with Mean value 29.88 for males & 30.10 for females. Similarly, the t-value on interpersonal relations was t-value -1.86 which was insignificant with Mean value 29.64 for males & Mean value 34.12 for females. Likewise, the t-value on total psychological well-being was t- value 0.93 which was insignificant with Mean value 153.64 for males & Mean value 163.92 for females.

Table 4.12:

Summary of t-value for male & female institutionalized orphans in perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions

Variable	Mean		S. D		t-value	p-value
	Male	Female	Male	Female		
Perceived Stress	23.8	22.3	7.08	6.96	1.02	.30
Mindfulness	3.66	3.78	1.08	0.98	0.58	.56
Self-regulation (Short-term)	32.3	31.1	6.43	5.50	1.04	.29
Self-regulation (Long- term)	47.3	47.8	12.1	11.5	0.18	.85
Self-regulation (Sum)	101.16	101.66	16.16	14.85	0.16	.86
Satisfaction (I)	31.14	33.27	13.58	11.56	0.87	.38
Efficiency (II)	31.88	34.09	12.74	11.50	0.93	.35
Sociability (III)	31.09	32.33	12.51	10.41	0.55	.57
Mental Health (IV)	29.88	30.10	12.32	10.02	0.10	.91
Interpersonal relations (V)	29.64	34.12	13.60	11.19	1.86	.06
Psychological well-being (Total)	153.64	163.92	62.22	51.08	0.93	.35

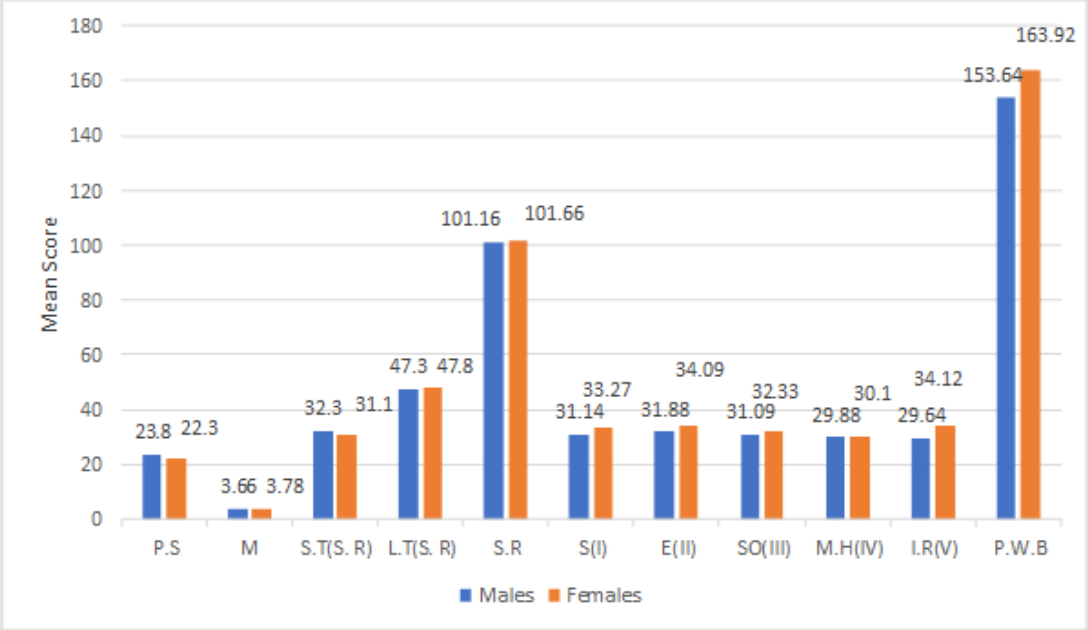
p> .05, N= 108

P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale

The end result showed that there seemed insignificant difference amidst institutionalized orphans of both the gender on perceived stress, mindfulness, self-regulation with its types and psychological well-being & its dimensions. Furthermore, figure4.8represents the mean difference for male & female institutionalized orphans in perceived stress, mindfulness, self-regulation and psychological well-being.

Figure 4.8

Mean difference of male & female institutionalized orphans in perceived stress, mindfulness, self-regulation with its types & psychological well-being with its dimensions.



P.S; perceived stress, M; mindfulness, S.T(S.R); short term self-regulation; L.T(S.R); long term self-regulation, S.R; self-regulation, S(I); satisfaction, E(II); efficiency, SO(III); sociability, M.H(IV); mental health, I.R(V); interpersonal relations, PWBS; psychological well-being scale. Source: own data.

4.5 Discussion:

The first objective of the study was to examine the effect of MBSR intervention on perceived stress, mindfulness, self-regulation and psychological well-being of institutionalized orphans. Results put forward as above display that MBSR intervention has proved to be beneficial in reducing perceived stress and in enhancing mindfulness, self-regulation and psychological well-being among institutionalized orphans. It was found that within experimental group, institutionalized orphans did show a decrease in perceived stress after the implementation of MBSR. As this intervention involves the acceptance of one's thoughts, emotions and bodily sensations, involves practicing non-judgmental observation of inner and outer experiences and the application of relaxation techniques (Baer et al., 2004) suggests that these mechanisms play a key role in mindfulness and when integrated in MBSR, they prove to contribute positively in reduction of stress. The findings of the present study is consistent with that of Irani, (2020) who conducted a study to examine the effect of MBSR on fear of negative evaluation, change of attitude towards life and assertiveness in neglected male adolescents and MBSR proved to be effective in bringing about that change by strengthening cognitive system attention, raising awareness of current experiences, improving information processing and in regulating mental health. Furthermore, it is also supported by (Biegel et al., 2009) and (González et al., 2018b) findings that reported reduction in stress among adolescents followed by MBSR intervention. In the present study, MBSR intervention program spread over 8 weekly sessions of 60 minutes each was administered on the experimental group and weekly follow up reports were collected in the form of weekly meditation practice sets from the experimental group with the aim to ensure that the intervention practiced in the preceding week was daily exercised by the group before the next mindfulness exercise was taught to them. This everyday home practice might be the reason for an increase in mindfulness among institutionalized orphans in the experimental group as supported by studies that states that mindfulness based interventions when exercised regularly show beneficial results in improving the overall psychological health. The benefits of frequent mindfulness practice include better sleep, higher self-awareness, and an improvement in overall satisfaction in life (Baer et al., 2004; Fredrickson et al., 2008; Kabat-Zinn, 2003). A study by (Oronoz, 2018) wherein an ethnographic case study was done to determine whether an intervention based on mindful techniques as

a component of a scholastic programme for children found on Mexican streets could assist them in overcoming their socio-emotional barriers to education and daily stressors, enabling them to fully benefit from the programmes made available to them. A mindfulness-based curriculum was offered to one group for eight weeks, while the control group remained with their regular schedule. Results showed that participants believed this practice would help them overcome their impulsive behaviours and enable them to respond more consciously. They believed they had discovered a method for controlling their frequently foggy minds through these mindful activities. Also study by (Carmody & Baer, 2008) have reported a positive association of the advantages of mindfulness with the extent of practicing mindful based activities like body scan, yoga and sitting meditation. Significant increase was also found among the self-regulation and the various dimensions of psychological well-being scale like sociability, satisfaction, efficiency, mental health and interpersonal relations suggesting an overall enhancement of the well-being of institutionalized orphans, which was consistent with the study by Anand & Sharma., (2011) who looked at viability, acceptability, and utility of the Mindfulness-Based Stress Reduction (MBSR) programme in order to reduce stress and improve well-being in teenagers attending Indian schools and the findings demonstrated that MBSR programme was practical to implement in Indian schools and was a suitable group intervention strategy for lowering stress, and boosting wellbeing. Also, Anand & Sharma., (2011) stated that mindfulness also shows us that thoughts are transient not our identity or reality. This understanding reduces self-judgment and reflexive responses to thoughts thus, promoting better self-regulation.

To conclude, MBSR has the potential to help adolescents to deal with sub threshold depression (Zhang et al., 2019), to help students to achieve academic achievement and increase their well-being (Bennett & Dorjee, 2016), in treating secondary posttraumatic stress disorder in veterans' homemakers and enhancing psychological well-being and emotional control (Omidi et al., 2017), Additionally, it has demonstrated its impact on glucose management and emotion regulation in type 2 diabetic patients. (Kian et al., 2018). Thus, MBSR as an intervention has proved to have a positive effect on both clinical as well as non-clinical samples.

The second objective of the study was to examine the relationship amidst perceived stress and well-being of institutionalized orphans which came out to be inversely

proportional to one another and significant at 0.01 level as mentioned in table4.10 (r = -.528, p < .01). Thus, confirming that there exists significant negative relationship between perceived stress and psychological well-being of institutionalized orphans. This result is similar to researches that have been documented in various studies which have mentioned a negative relation between perceived stress and psychological well-being (Kapoor et al., 2021; Lee, 2007; Moeini et al., 2008; Yendork & Somhlaba, 2014; Urquijo et al., 2016).The third objective of the study was to examine the association amidst mindfulness and perceived stress of institutionalized orphans which came out to be negative and significant at 0.01 level as mentioned in table4.10 (r = -.485, p <.01). Thus, confirming that there exists significant negative relationship between mindfulness and perceived stress of institutionalized orphans. This result is similar with the study conducted by Hepburn et al., (2021) suggested that higher level of mindfulness is associated with lower level of perceived stress which in turn may be associated with higher subjective well-being. The result of the present study is similar to Bauer et al., (2019)who suggested that mindfulness training helps in reducing stress and has been associated with decreased activity of right amygdala when viewing fearful faces. Another study done by Lu et al., (2019) explored that mindfulness may act as a protective factor that mitigates the damaging consequences of perceived stress on depression, anxiety and subjective well-being. The fourth objective of the study was to assess the relationship amidst mindfulness and well-being of institutionalized orphans which came out to be positive and significant at 0.01 level (r = .584, p < .01). Thus, confirming that there exists significant positive relationship between mindfulness and psychological well-being of institutionalized orphans. The finding is consistent with the study conducted by Brown & Ryan, (2003) who provided a theoretical and empirical investigation of the part mindfulness plays in psychological wellbeing and it was found that the mindfulness attention awareness scale that measures mindfulness was linked to higher levels of life satisfaction, vitality, positive affectivity, self-esteem, optimism, and self-actualization. The result of the study is similar to various studies which have mentioned a positive relation between mindfulness and psychological well-being (Parto & Besharat, 2011; Sarma, 2014; Shulga, 2019).The fifth objective of the study was to examine the relationship between mindfulness and self-regulation of institutionalized orphans which came out to be significantly positive at 0.01 level (r = .462, p <.01).Thus, confirming that there exists significant positive relationship between mindfulness and self-regulation of

institutionalized orphans. The result of the study is in line with Masicampo & Baumeister, (2007) that suggests that for people who already have a strong level of self-control, mindful states might be more accessible. The sixth objective of the study was to examine the relationship between self-regulation and psychological well-being of institutionalized orphans. It was found that self-regulation has a positive and moderate relation with total psychological well-being significant at 0.01 level ($r = .458$, $p < .01$). Thus, confirming that there exists significant positive relationship between self-regulation and psychological well-being of institutionalized orphans. The findings of the study was in line with S. Singh & Sharma, (2018) whose goal was to examine the connection between psychological well-being and one's ability to regulate oneself and there was found to be a positive correlation between self-regulation with psychological well-being and its dimensions. The seventh objective was to examine the relationship between self-regulation and perceived stress of institutionalized orphans which came out to be inversely proportional to one another significant at 0.01 level ($r = -.425$, $p < .01$). Thus, confirming that there exists significant negative relationship between self-regulation and perceived stress of institutionalized orphans. The findings are supported by various studies (Ramli et al., 2018; Wrzosek, 2012).

The eighth objective of the research was to investigate the parallel mediating effect of mindfulness and self-regulation in relationship between perceived stress and psychological wellbeing of institutionalized orphans after receiving the intervention.Regression by SPSS Amos was employed to investigate the mediating role of mindfulness and self-regulation between perceived stress and psychological well-being and it was found that both mediators partially mediated between perceived stress and psychological well-being. Thus, confirming that there is a significant parallel mediating effect of mindfulness and self-regulation between perceived stress and psychological well-being. The findings of this study are in line with Nyklícek & Kuijpers, (2008) wherein they compared the results of MBSR to a control condition in a trial, while also looking at the potential mediating effects of mindfulness to which they found that increased mindfulness may, at least in part, mediate the beneficial benefits of a mindfulness-based stress reduction intervention. Another study conducted by Gard et al., (2012) looked to assess the benefits of a programme based on yogic techniques on life quality, perceived stress, mindful awareness, and

compassion of self. The findings revealed participants assigned to the intervention programme expected improvements in life quality and decline in felt stress, which were mediated by mindful awareness and compassion. The findings are in line with many studies. (Bergin & Pakenham, 2016; Schultz & Ryan, 2015; Zheng et al., 2019).

The ninth objective of the research was to study the differences among the male and female institutionalized orphans with regard to their Perceived Stress, Mindfulness, Self-regulation and psychological wellbeing. Mean, t-test was employed to figure out the difference based on gender and it was found that although the mean value of females on mindfulness, regulation of self and well-being was higher than the males and the mean value of males on perceived stress was higher than females, but the difference between male and female institutionalized orphans was found to be insignificant. The finding of the study is in line with (Heinen et al., 2017; Pumpuang et al., 2021).

5. CONCLUSIONS, RECOMMENDATIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH:

The primary objective of the present research was to examine the efficacy of stress reduction intervention based on mindful technique on felt stress, Mindfulness, Self-Regulation and Psychological Well-being among adolescents who had been experiencing parental death and are living in orphanages of Jammu & Kathua district of Jammu division (J&K, India). Adolescent stage of human development is seen as a crucial time when different aspects of physical, psychological, cognitive, social, and emotional development manifest and have an impact on how adolescents interact with their classmates, parents, and other important people in their lives. Teenagers are more likely to face challenging life decisions that could overwhelm and confound them as a result of these developmental experiences and changes (Compas, 1987; Pathak et al., 2011). Losing a parent is one of the most difficult things anybody can go through in life, but the trauma of losing a parent has the greatest impact on a child's psychology throughout adolescence and, as a result, has long-lasting implications on how that person will go about living in the future. Despite the fact that numerous comparison studies between orphans and non-orphans have been conducted on various psychological constructs, nearly all of the studies indicate that orphan children exhibit higher levels of psychological problems than children who are receiving the majority of their care from their parents(Kannan et al., 2016; Kaur et al., 2018; Sahad et al., 2017) However, little research has been conducted in India, particularly in Jammu, where the prevalence of this understudied group in society is significant and little focus has been placed on the intervention needed to solve the issues these kids are facing. Therefore, this study is a step towards imbibing MBSR intervention in the curriculum of the orphanages for the well-being of institutionalized orphans.

This present chapter is bifurcated into four sections:

- Firstly, it deals with the conclusion of the study.
- Secondly, it deals with the recommendations based on the results of the study.
- Thirdly, it mentions the limitations of the study.
- Finally, it specifies the suggestions for future research.

5.1 Conclusions:

This section attempts to provide a concise description of the conclusions reached objective wise using descriptive and inferential statistics.

5.1.1 Comparative Study of Experimental and Control Group:

Objective 1: To examine the effect of Mindfulness Based Stress Reduction intervention on Perceived stress, Mindfulness, Self-regulation & Psychological well-being of institutionalized orphans.

5.1.1.1 Comparison of Experimental and Control Group at Pre-Test Phase:

According to statistical analysis, there were no significant changes to be found in Perceived stress, Mindfulness, Self-Regulation with its types (short-term & long-term) & well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations) at baseline or pre-test phase among institutionalized orphans. The result signifies that before the implementation of mindfulness-based stress reduction (MBSR) intervention the samples in both the experimental and control group were similar with respect to their perceived stress level, mindfulness, self-regulation and psychological well-being.

5.1.1.2 Comparative Study of Pre-Post Control Group:

Based on the mean value, there was insignificant difference between pre and post control group on perceived stress, mindfulness, self-regulation & its types (short-term & long-term) and psychological well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations).

5.1.1.3 Comparative Analysis of Pre-Post Experimental Group:

After applying paired sample t -test, it was found based on the mean score that there was a significant difference between pre and post experimental group on the study variables. It was clearly found that the mean score of perceived stress was lower in post experimental group in comparison to the pre-experimental group which signifies that the implementation of MBSR on the treatment group had its impact on institutionalized orphans perceived stress level. It was also found that the mean value of post-experimental group on mindfulness, self-regulation and psychological well-being increased in comparison to pre-experimental group suggesting that MBSR proved to be an effective intervention in increasing mindfulness, self-regulation and

psychological wellbeing among institutionalized orphans who were part of the experimental group.

5.1.1.4 Comparison of Experimental and Control Group at Post-Test Phase:

According to statistical analysis, it was found that there was significant changes between experimental and control group in Perceived stress, Mindfulness, Self-Regulation with its types (short-term & long-term) & Psychological well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations) at post-test phase among institutionalized orphans signifying that the difference between both the groups was due to the intervention that was implemented between pre and post assessment.

5.1.2 Correlation among the Study Variables:

Objective 2: To examine the relationship between perceived stress and psychological well-being of Institutionalized orphans.

Objective 3. To examine the relationship between mindfulness and perceived stress of institutionalized orphans.

Objective 4. To examine the relationship between mindfulness and psychological well-being of institutionalized orphans.

Objective 5. To examine the relationship between mindfulness and self-regulation of institutionalized orphans.

Objective 6. To examine the relationship between self-regulation and psychological well-being of institutionalized orphans.

Objective 7. To examine the relationship between self-regulation and perceived Stress of institutionalized orphans.

To understand the linear interdependence amidst the study variables, Pearson's correlation was computed and it was found that perceived stress had a negative and significant relationship with mindfulness, self-regulation and psychological well-being which signifies that as the level of perceived stress increases there is a decline in mindfulness, self-regulation and psychological well-being among institutionalized orphans having high perceived stress. It was also found that mindfulness, self-regulation and psychological well-being all three had a positive and significant relation with one another stating that as one increases there is an increase on the other

variables as well.

5.1.3 Mediation:

Objective 8: To investigate the parallel mediating effect of mindfulness and self-regulation in relationship between perceived stress and psychological wellbeing of institutionalized orphans after receiving the intervention.

Regression by SPSS Amos was employed to investigate the mediating role of mindfulness and self-regulation between perceived stress and psychological well-being and it was found that both mediators partially mediated between perceived stress and psychological well-being.

5.1.4 Comparative Analysis of Male & Female Institutionalized Orphans:

Objective 9: To study the differences among the male and female institutionalized orphans with regard to their perceived Stress, mindfulness, self-regulation and psychological wellbeing.

Based on gender difference there was insignificant difference to be found among male and female institutionalized orphans on perceived stress, mindfulness, self-regulation and its types (short-term & long-term) and psychological well-being with its dimensions (satisfaction, efficiency, sociability, mental health & interpersonal relations).

Table 5.1 represents the conclusion of the hypotheses framed in this present study:

Table 5.1Conclusion of Research Hypotheses.

S.no.	Hypotheses	Significant/Insignificant	Status
H1	No significant difference on perceived stress, well-being, self-regulation and mindfulness of institutionalized orphans between experimental & control group at baseline (Pre-test).	Insignificant	Accepted
a)	Control group will show no significant improvement in perceived stress, mindfulness, self-regulation, psychological well-being variables post	Insignificant	Accepted

	intervention as compared to pre intervention scores	Significant	Accepted
b)	Experimental group will show significant improvement in perceived stress, mindfulness, self- regulation, psychological well-being variables post intervention as compared to pre intervention scores.		
c)	A significant difference on perceived stress, well-being, self-regulation and mindfulness of institutionalized orphans between experimental & control group post intervention. (Post-test).	Significant	Accepted
H2	There exists significant negative interdependence between felt stress and well-being of institutionalized orphans.	Significant	Accepted
H3	An inverse relationship amidst mindfulness and perceived stress of institutionalized orphans.	Significant	Accepted
H4	There exists significant positive relationship among mindfulness and psychological well-being of institutionalized orphans	Significant	Accepted
H5	There exists significant positive relationship between mindfulness and self-regulation of institutionalized orphans	Significant	Accepted
H6	There exists significant positive relationship between self-regulation and well-being of institutionalized orphans.	Significant	Accepted
H7	There exists inverse relationship between self-regulation and perceived stress	Significant	Accepted

	of institutionalized orphans		
H8	There will be significant parallel mediation of mindfulness and self-regulation in association among perceived stress and psychological wellbeing of institutionalized orphans after receiving the intervention.	Significant (Partial mediation)	Accepted
H9	Male and Female institutionalized orphans differ with regard to their Perceived Stress, Mindfulness, Self-regulation and psychological wellbeing scores	Insignificant	Data not in support of the hypothesis Not Accepted

5.2 Recommendations:

The main aim of the current research was to look after the effect of MBSR on Perceived stress, Mindfulness, regulation of self& Psychological well-being among Institutionalized Orphans. The result of the present research found MBSR to be an effective intervention in alleviating orphans perceived stress and beneficial in enhancing their mindfulness, regulation of self and well-being. In light of the study's findings and significance, the following recommendations are made for various stakeholders, including the orphanage's governing body, government officials, policy makers, and society, in order to lessen the psychological issues these vulnerable kids face in orphanages and help them live happy, successful lives as well as become contributing members of society without feeling excluded from it.

- In the present study, Mindfulness Based stress reduction (MBSR) intervention was implemented on institutionalized orphans to reduce their perceived stress by helping them be fully aware of themselves and their emotions. It has also proved to be an effective intervention in enhancing mindfulness, self - regulation and psychological well-being among orphans.
- Health care professionals, wardens, teachers, and guardians should all receive training from counsellors and child psychologists in orphanages. To assist not only the orphans and vulnerable children, but also the instructors and caregivers who are caring for these children, all schools and orphanages should have a child guidance counsellor. Training in mindfulness develops

into a habit and doesn't require further time or effort after it has been learned and adopted into daily life. When a teenager regularly practises mindfulness, what started as a conscious effort during training can eventually become an effortless ability that benefits them in many areas of life.

- The government can play an important part in regulating and supervising the circumstances of child care in orphanages, ensuring its residents' safety, well-being, and correct growth. With the intention of early identification of mental health issues among orphanage children, the government may hire psychologists, counsellors, and other health professionals. Beforehand description of freedom from mental illness in orphanages would be a crucial guide for policy makers for the sake to improve the rehabilitation and social development of orphan children. As a result, the current study provides guidance for the organisation in charge of monitoring the provision of services for the children in the orphanage.
- Official training and preference for specialisation should be given to caregivers working in these orphanages. These caregivers should receive training on the value of relationships with the orphans, how to recognise various behavioural and mental health issues, how to recognize risky behaviour and how to assess suicidal tendencies among the orphan children.
- There were no dropouts during the study, and the orphans provided favourable comments, indicating that the intervention was acceptable and practical in an institutionalized setting. There is room for mindfulness-based interventions in a curriculum of orphanages when taking into account the many advantages that this intervention has to offer and the fact that it is cost-effective.

5.3 Limitations:

Studies that are conducted for research purposes in the social sciences do not guarantee the accuracy of the results or are free from limitations. Thus, this present study is also not without its limitation which is as follows:

- The current study lacks follow-up data collection, which would have added to the understanding the effectiveness of the MBSR intervention.

- The assessments and participant interventions were carried out by the same researcher, which could have led to experimenter bias.
- Given that the intervention was conducted in a group setting, a group effect may have taken place. The social facilitation and group conformance behaviour of this group administration, nevertheless, may also work to its favour.
- The research was confined to few orphanages situated in Jammu & Kathua district of Jammu division which might reduce the ability to generalize this study across the country.
- Although the experimental group's participants completed a weekly meditation form, it was impossible to confirm whether they actually engaged in mindfulness after the session.
- The present study's sole reliance on self-report for the psychological variables was another drawback because of the subjective nature of the questionnaires that may affect the accuracy of the study.

5.4 Suggestions for Future Research:

With the knowledge and insights gathered from the current study, it is feasible to provide some specific recommendations for future research that may be done on this population segment. For such difficulties that can only be further addressed by scientific researchers, this study is just the beginning. Some of the suggestions are mentioned as follows:

- The effect of MBSR intervention on other psychological, physical and cognitive constructs like attention span, rumination, academic achievement, resilience, glycaemic control for diabetic patients and emotional intelligence can be studied in future researches.
- The present research was confined to institutionalized orphans situated in Jammu division. In future, it can be expanded to other areas of Jammu & Kashmir for in-depth understanding of the effect of MBSR on institutionalized orphans.

- The present study was a quantitative study. In future, mixed method approach by using both qualitative and quantitative design can be useful for gaining in-depth understanding of the benefits of MBSR intervention.
- In order to determine whether the effects of the mindfulness intervention on the orphans were long-lasting, prospective follow-up observations might be made in the future.

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7. DETAILS OF RESEARCH PUBLICATIONS/CONFERENCES/ WORKSHOPS

S.No.	**Title of paper with author names**	**Name of journal / conference/workshop**	**Published date**	**Issn no/ vol no, issue no**	**Indexing in Scopus/ Web of Science/UGC-CARE list (*please mention*)**
1.	Association of Mindfulness and Perceived Stress among Bank Employees. Ms. Taniya Raina & Dr. Hari Om Sharma.	Shodh Sarita – Ugc Approved Journal	April-June 2020	Vol. 7, Issue 26 (V)	UGC-CARE LIST
2.	RELATIONSHIP AMONG MINDFULNESS, FAMILY SUPPORTIVE SUPERVISOR BEHAVIOUR'S, JOB SATISFACTION & WORK ENGAGEMENT- A STUDY OF COLLEGE TEACHERS. Ms. Taniya Raina & Dr. Manish Kumar Verma.	RABINDRA BHARATI JOURNAL OF PHILOSOPHY	2022	Vol.: XXIII, no:15	UGC-CARE LIST

3.	"The relationship among Mindfulness, Family supportive supervisor behavior's, Job satisfaction & Work engagement among college teachers" Ms. Taniya Raina & Dr. Manish Kumar Verma.	Multidisciplinary international web conference 2022 organized by international council for education, research & training (ICERT).	May 21-22, 2022	--	Conference
4.	"Association of Mindfulness and Academic procrastination among college students" Ms. Taniya Raina & Dr. Manish Kumar Verma	National Conference on integrated approach in science and technology for sustainable future. (IAST-SF)	27-28 Feb, 2022	----	Conference
5.	"Assessment of Perceived Stress and Coping Mechanism-A study of UG students of Jammu &Kashmir.	National E-conference on Education and Development: Post COVID-19 organized by school of education LPU.	26/09/2020	……	Conference
6.	Research Methodology	National Workshop organized by School of Management Studies Punjabi University, Patiala	5^{th}-11^{th} April 2019	……	Workshop
7.	Mindfulness	Online Workshop on Mindfulness organized by Cognizavest	20/09/2020	……..	Online Workshop

8. APPENDICES

Appendix I

1. Name: _____(optional) 2. Age: _____

3. Gender: Male/Female 4. Location: Rural/Urban

5.Month/ Year of stay in orphanage: ____

6. Reason of stay in orphanage: _____

Perceived Stress Scale (PSS):

The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

S.no	**Items**	**0**	**1**	**2**	**3**	**4**
1	In the last month, how often have you been upset because of something that happened unexpectedly?	Never	Almost Never	Sometimes	Fairly Often	Very Often
2	In the last month, how often have you felt that you were unable to control the important things in your life?	Never	Almost Never	Sometimes	Fairly Often	Very Often
3	In the last month, how often have you felt nervous and stressed?	Never	Almost Never	Sometimes	Fairly Often	Very Often
4	In the last month, how often have you felt confident about your ability to handle your personal problems?	Never	Almost Never	Sometimes	Fairly Often	Very Often
5	In the last month, how often have you felt that things were going your way?	Never	Almost Never	Sometimes	Fairly Often	Very Often
6	In the last month, how often have you found that you could	Never	Almost	Sometimes	Fairly	Very

	not cope with all the things that you had to do?		Never		Often	Often
7	In the last month, how often have you been able to control irritations in your life?	Never	Almost Never	Sometimes	Fairly Often	Very Often
8	In the last month, how often have you felt that you were on top of things?	Never	Almost Never	Sometimes	Fairly Often	Very Often
9	In the last month, how often have you been angered because of things that happened that were outside of your control?	Never	Almost Never	Sometimes	Fairly Often	Very Often
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	Never	Almost Never	Sometimes	Fairly Often	Very Often

Appendix II

Mindfulness attention awareness scale (MAAS):

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

S.No.	Items	1	2	3	4	5	6
1	I could be experiencing some emotion and not be conscious of it until sometime later.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
2	I break or spill things because of carelessness, not paying attention, or thinking of something else.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
3	I find it difficult to stay focused on what's happening in the	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never

	present.						
4	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
6	I forget a person's name almost as soon as I've been told it for the first time.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
7	It seems I am "running on automatic," without much awarenes	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never

	s of what I'm doing.						
8	I rush through activities without being really attentive to them.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
9	I get so focused on the goal I want to achieve, that I lose touch with what I'm doing right now to get there.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
10	I do jobs or tasks automatically, without being aware of what I'm doing.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
11	I find myself listening to someone with one ear, doing somethin	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never

	g else at the same time.						
12	I drive places on 'automatic pilot' and then wonder why I went there.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
13	I find myself preoccupied with the future or the past.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
14	I find myself doing things without paying attention.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never
15	I snack without being aware that I'm eating.	Almost always	Very frequently/ often	Somewhat frequently/somewhat often	Somewhat infrequently/ Somewhat not often	Very infrequently/Not often	Almost never

Appendix III

Adolescent Self-Regulatory Inventory (ASRI):

For the next several questions, please choose a number from 1-5 and write it next to each statement to indicate how much you agree with that statement.

1	2	3	4	5
Not at all true for me		Sometimes		Really true for me

1. _____ It's hard for me to notice when I've "had enough" (sweets, food, etc.).
2. _____ When I'm sad, I can usually start doing something that will make me feel better.
3. _____ If something isn't going according to my plans, I change my actions to try and reach my goal.
4. _____ I can find ways to make myself study even when my friends want to go out.
5. _____ I lose track of the time when I'm doing something fun.
6. _____ When I'm bored I fidget or can't sit still.
7. _____ It's hard for me to get started on big projects that require planning in advance
8. _____ I can usually act normal around everybody if I'm upset with someone
9. _____ I am good at keeping track of lots of things going on around me, even when I'm feeling stressed.
10. _____ When I'm having a tough day, I stop myself from whining about it to my family or friends
11. _____ I can start a new task even if I'm already tired.
12. _____ I lose control whenever I don't get my way.
13. _____ Little problems detract me from my long-term plans.

14. _____ I forget about whatever else I need to do when I'm doing something really fun
15. _____ If I really want something, I have to have it right away.
16. _____ During a dull class, I have trouble forcing myself to start paying attention
17. _____ After I'm interrupted or distracted, I can easily continue working where I left off.
18. _____ If there are other things going on around me, I find it hard to keep my attention focused on whatever I'm doing.
19. _____ I never know how much more work I have to do.
20. _____ When I have a serious disagreement with someone, I can talk calmly about it without losing control.
21. _____ It's hard to start making plans to deal with a big project or problem, especially when I'm feeling stressed.
22. _____ I can calm myself down when I'm excited or all wound up. Long-Term Self-Regulation Items
23. _____ I can stay focused on my work even when it's dull.
24. _____ I usually know when I'm going to start crying.
25. _____ I can stop myself from doing things like throwing objects when I'm mad.
26. _____ I work carefully when I know something will be tricky
27. _____ I am usually aware of my feelings before I let them out.
28. _____ In class, I can concentrate on my work even if my friends are talking.
29. _____ When I'm excited about reaching a goal (e.g., getting my driver's license, going to college), it's easy to start working toward it.
30. _____ I can find a way to stick with my plans and goals, even when it's tough.
31. _____ When I have a big project, I can keep working on it.

32. _____ I can usually tell when I'm getting tired or frustrated.

33. _____ I get carried away emotionally when I get excited about something.

34. _____ I have trouble getting excited about something that's really special when I'm tired.

35. _____ It's hard for me to keep focused on something I find unpleasant or upsetting

36. _____ I can resist doing something when I know I shouldn't do it.

Appendix IV

Psychological Well-being Scale (PWBS):

Read each statement carefully and tick any one option you find most appropriate. No answer is right or wrong. Don't spend too much of time on any statement. Answer all the statements. The information would be kept confidential and will be used for the research purpose only.

Area I

S.no.	Statements	5	4	3	2	1
1	I think I have a particular meaning and purpose of my life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
2	I have happy memories of the past.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
3	I am very much satisfied about everything in my life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
4	In general, I feel I am in charge of the situation in which I live.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
5	In most ways my life is close to my ideal.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
6	The conditions of my life are excellent.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
7	So far, I have the important things I want in life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
8	If I could live my life over, I would change almost nothing.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
9	In many ways, I feel contended about my achievements in life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
10	I am living the kind of life I wanted to.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

Area II

S.No.	Statements	5	4	3	2	1
11	I find easy to make decisions.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
12	In my daily life I get chance to show how capable I am.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
13	I feel positive and creative.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
14	I find I can think quite clearly.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
15	I am quite good at managing responsibilities of my daily life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
16	For me, life has been a continuous process of learning, changing and growth.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
17	I feel that I am capable of working hard.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
18	I feel eager to tackle my daily task or make new decisions.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
19	I feel I can easily handle or cope with any serious problem.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
20	I think it is important to have new experiences that challenge how you think about yourself and the world.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

Area III

S.No.	Statements	5	4	3	2	1
21	I take immense interest in other people.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
22	I always keep committed and involved.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
23	I have adjusting nature and sense of belongingness.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
24	I feel I must do what others expect me to do.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
25	People would describe me as a giving person, willing to share my time with others.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
26	I have good influence on life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
27	It is always necessary that others approve of what I do.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
28	Maintaining close relationships gives pleasure to me.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
29	I experience warm and trusting relationships with others.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
30	I believe that people are essentially good and can be trusted.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

Area IV

S.No.	Statements	5	4	3	2	1
31	I remain energetic, active and vigorous whole day.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
32	Thought of accident doesn't affect me.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
33	Tension in life doesn't affect my health.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
34	I have no difficulty in sleeping.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
35	I keep myself busy whole day.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
36	Illness doesn't affect my mental health.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
37	I feel rested when I wake up in the morning.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
38	Talking or thinking about my illness doesn't make any difference to me.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
39	Usually I don't feel tired, worn out, used up or exhausted.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
40	Age related problems are part of life.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

Area V

S.No.	Statements	5	4	3	2	1
41	Personal relationship gives me pleasure.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
42	I enjoy company of other people.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
43	I enjoy my personal achievements.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
44	I perform useful activities like reading, gardening etc. in my leisure time.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
45	I have no hesitation in talking to anyone.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
46	I like to do any task at right place and right time.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
47	I have good relations with relative and friends.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
48	I feel satisfied by doing religious activities.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
49	I like to watch programs on TV with everyone.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
50	I am always careful about my manner of dress.	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

Appendix V

Weekly Mindfulness Practice Form:

Name: _____(optional) **Starting date: _____**

Age: _____ **Gender: _____**

Week no. 1/2/3/4/5/6/7/8

This is a weekly meditation form, where you can record your meditation homework practice for each week, kindly fill all the columns:

DAYS	DURATION (MIN)	DEGREE OF AWARENESS (0-100)	SATISFACTIN WITH THE OUTCOME (0-100)
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			