

**EFFECTIVENESS OF GROUP MINDFULNESS
INTERVENTION ON STUDENT AWARENESS,
ANXIETY, STRESS AND DEPRESSION AT
VARIOUS LEVELS IN EDUCATION**

***SYNOPSIS OF THE THESIS SUBMITTED TO JADAVPUR
UNIVERSITY FOR AWARD OF THE DEGREE OF DOCTOR OF
PHILOSOPHY IN ARTS***

**SUBMITTED BY
ABHIJIT BISWAS**

**UNDER THE SUPERVISOR OF
PROF. MUKTIPADA SINHA**

**DEPARTMENT OF EDUCATION
JADAVPUR UNIVERSITY**

2022

CHAPTER OUTLINE

CHAPTER I	:	CONTEXT OF THE STUDY
CHAPTER II	:	THE PROBLEM OF THE STUDY
CHAPTER III	:	METHODOLOGY AND PROCEDURE
CHAPTER IV	:	ANALYSIS AND INTERPRETATION OF DATA
CHAPTER V	:	CONCLUSION AND DISCUSSION

CHAPTER-I: CONTEXT OF THE STUDY

Mental health concerns such as sadness, anxiety, and stress are becoming more common among adolescents and young people all around the world. Higher education, like adolescence, is a critical turning point in the lives of young adults. According to global data, 14 percent of the population aged 14 to 19 suffers from mental health issues, including depression and stress-related diseases. Furthermore, as a result of the COVID-19 pandemic crisis, the shutdown of educational facilities has increased mental health difficulties among students. Mindfulness-Based Stress Reduction (MBSR) is a research-proven method for reducing depression, anxiety, and stress, as well as developing attentive awareness. Mindfulness is defined as a nonjudgmental awareness of the present moment. It is a psychological technique that entails focusing our attention on the current conditions that surround us, i.e. accepting the present moment without reasoning or avoidance. We become considerably more aware of each moment as a result of mindfulness, fully involved in what is happening around us with acceptance and without judgement. It might be able to achieve this through meditation or intervention tactics. John Kabat-Zinn established Mindfulness-Based Stress Reduction (MBSR) in 1979, and it is an important and pioneering mindfulness intervention strategy (Kabat-Zinn, 2006). It is an eight-week regular programme that involves 45 minutes of daily meditation practise to address unconscious ideas, feelings, and actions in order to reduce stress, anxiety, and depression while also increasing awareness attention.

According to Kabat Zinn through mindfulness, we become more aware to each moment and being fully engaged in what is happening in our surroundings with acceptance and without judgement. Mindfulness is the practice of focusing one's consciousness and attention, which is based on the Buddhist meditation concept of mindfulness but can be defined in a variety of ways. It can be developed through the practice of meditation. Meditation is a necessary condition for mindfulness, but it is not sufficient. Mindful living, mindful walking, mindful eating, mindful breathing and

likewise every aspect in our life we may practice mindfulness. We already have traditional wisdom, known as Buddhist Mindfulness, which can be put to use to accomplish this purpose. It is a scientifically proven method for dealing with these situations in which simply keeping cool and watchful can reduce an unrivalled range of mental, emotional, and social risks to the individual. Mindfulness practise has been linked to a variety of health benefits, including decreased anxiety, stress, and depression, as well as increased general happiness. Mindfulness practise is thought to be a skill or resource for dealing with life's problems, resulting in a balance of skills or resources and challenges, i.e., well-being.

The term mindfulness can refer to a psychological quality, a practise of promoting mindfulness (e.g., awareness practise), a method or state of consciousness, or a psychological process. Mindfulness has been linked to cognitive well-being both philosophically and practically. Mindfulness components such as awareness and non-judgmental acknowledgement of one's present experience are viewed as potentially beneficial prophylactic to common aspects of psychological frustration, anxiousness, concern, fear, indignation, and so on—many of which involve dysfunctional ability to avert, put down, or over-engage with someone's troubling feelings and thoughts. One of the most puzzling elements of modern education is that we encourage students to "pay attention" thousands of times each day while never teaching them how. Mindfulness helps students how to focus their attention, which benefits both academic and social-emotional development (Saltzman, 2011). Take use of instructors' and students' attentiveness in the sphere of education. Adolescence is the most productive time of a person's life. The most important of all the requirements for adolescents is a health facility. Mindfulness is a powerful tool for both children and adults in maintaining pleasure and joy in their lives.

CHAPTER-II: THE PROBLEM OF THE STUDY

REVIEW OF RELATED LITERATURE

Critical analysis of the emerging problem studies available in this area had to be taken into account for a deeper understanding that was required for the construction of a broad conceptual context into the problem fits. It gave a summary of the existing evidence of the topic under consideration, which aided in demonstrating the need for the current investigation. The current studies on Mindfulness Meditation among students at various levels in India, the State of West Bengal, and other countries, and the effectiveness of Mindfulness Meditation on Mental Health and Awareness, include a variety of sources such as source-books, journals, reports, articles published and unpublished thesis, current reviews periodicals, and the internet. These were examined in order to define the current research problem.

Agarwal, A. & Dixit, V. (2017) conducted a research entitle as, “**The role of Meditation on Mindful awareness and Life Satisfaction of Adolescents**”. This research paper were two objectives, i.e. the first target of the study was to find out The impact of meditation on adolescents' mindful awareness and life satisfaction; and another reparation was to explore the relationship of mindful awareness and life satisfaction of adolescents. The result of the study was found that meditation had no significant difference on life satisfaction of Adolescents and another result was no significant correlation between Mindful attention awareness and life satisfaction of the adolescents.

Maniago, J.D. et. al. (2021) conducted a research entitle as, “**Improving mindful attention awareness among Saudi nursing students through autonomous sensory meridian response stimulation**”. The goal of this study was to see how ASMR stimulation affected nursing students' mindful attention awareness right away. This is a quasi-experimental pre- and post-test design with two treatment groups and a reference group. ASMR is seen as being a viable strategy in nursing education for increasing

students' mindful attention awareness. In terms of enhancing nursing students' mindfulness attention awareness, whispering and auditory noises, in particular, outperform personal attention trigger cues.

Janssen, M. et. al. (2018) attempted to complete a research project titled, **“Effects of Mindfulness-Based Stress Reduction on employees’ mental health: A systematic review”**. The main focus of the current exploratory research was to learn more about the impact of Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) on employee mental health. According to the findings of this systematic investigation, MBSR may help employees enhance their psychological functioning.

Gouda, S. et.al (2016) studied on **Students and Teachers Benefit from Mindfulness-Based Stress Reduction in a School-Embedded Pilot Study**. There is a paucity of research on the efficacy of a school-based mindfulness-oriented mediation for both children and instructors. To fill this void, the current trial look into whether pupils and educators who take independent Mindfulness-Based Stress Reduction (MBSR) courses improve in a number of cognitive characteristics, such as mental health and creativity. The findings add to an expanding body of research on mindfulness in schools by contrasting and comparing the impact of MBSR on pupils and educators, as well as emphasizing the significance of considering social repercussions.

Fumero, A. et. al. (2020) studied on **The Effectiveness of Mindfulness-Based Interventions on Anxiety Disorders. A Systematic Meta-Review**. There is a growing interest in studying the effectiveness of mindfulness-based therapies (MBIs). Many clinical studies and experimental designs have been carried out, with various samples and MBI methodologies being used. Aside from a tendency to indicate low-to-moderate effectiveness, reviews have yielded inconclusive results. The focus of this review is to tested available systematic reviews and meta-analyses to determine the efficacy of MBIs on anxiety problems. The study's key findings were more improved clinical trials are required to demonstrate definite MBI efficacy conditions (protocols,

samples, psychological mechanisms, etc.). Furthermore, new outcome measures are necessary when addressing mindfulness processes in order to investigate the incremental impact of MBIs.

Hofmann, S. G., & Gómez, A. F. (2017) studied on **Mindfulness-Based Interventions for Anxiety and Depression**. The application of mindfulness training has advanced cognitive and behavioural treatments for depression and anxiety, according to this article. In the last decade, research on mindfulness-based therapies (MBIs) has exploded. Two of the most common therapies are MBSR and MBCT. In a wide range of persons seeking therapy, MBIs have been illustrated to be beneficial in diminishing the intensity of stress and depressive symptoms. Health education, relaxation training, and supportive psychotherapy are examples of non-evidence-based treatments and active control conditions that consistently underperform MBIs. MBIs are similarly comparable to cognitive behavioural therapy in terms of results (CBT). MBIs for anxiety and depression have treatment principles that are similar to those of normal CBT.

Zhang, P et. al. (2018) conducted a study entitle as, “**Effects of Mindfulness-Based Stress Reduction on Depression in Adolescents and Young Adults: A Systematic Review and Meta-Analysis**”. As a positive mental health intervention, mindfulness is increasingly being utilised to treat depression in young people. The impact of mindfulness-based stress reduction (MBSR) on the treatment of depression in teenagers and young people was studied in this detailed investigation and meta-analysis. At the post-test stage of the study, the researchers discovered that MBSR had a moderate influence on decreasing depression in young people. In the future, more research on the impact of MBSR on depression symptoms in adolescents and young adults is needed.

According to a review of related literature, there are still significant knowledge gaps, and further research is evaluate the efficacy to determine the effectiveness of Mindfulness intervention on students' awareness and mental distress at various educational levels. The current study will attempt to identify research problems by asking the following specific research questions –

- i. What is the present status of Depression, Anxiety, Stress and Mindful Attention among the various levels of students?
- ii. What is the efficacy of a 'Mindfulness intervention Program' in decreasing the Awareness and reducing Depression, Anxiety and stress on various levels students?

To find out the answer to the above research questions, the problem of the study is specified and stated as, “*Effectiveness of group Mindfulness Intervention on student Awareness, Anxiety, Stress and Depression at various levels in Education*”.

OBJECTIVES OF THE STUDY: Stated objective were framed on the basis of aforesaid research questions and delimitations –

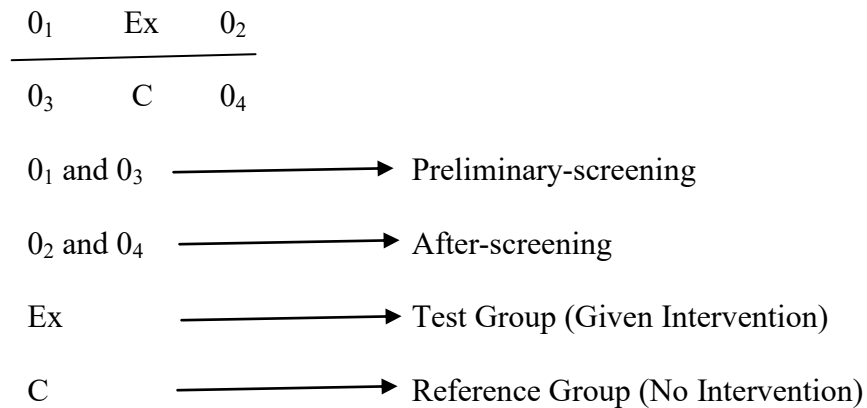
1. To evaluate the present status of Depression, Tension, Distress and Mindful Attention among the various level of students.
2. To assess the effectiveness of Mindfulness Meditation therapies cum intervention programme on Depression, Anxiety, Stress and Mindful Attention among the treatment & control Group students.
3. To observe the variation of explanatory variables (gender& study class) on Depression, Anxiety, Stress and Mindful Attention among the various level of students.
4. To find out the significant relationship between Mindful Attention Awareness, Depression, Anxiety and Stress in pre & post test score among the students when experimental group is concerned.

CHAPTER-III: METHODOLOGY AND PROCEDURE

RESEARCH DESIGN: The study was a quasi-experimental research therefore a pre-test and post-test technique. In this study two groups were available, the first one an experimental of test Group and the other a control or reference group. The test group was trained, and the reference group was not. Only some basic ideas and orientation of Mindfulness Meditation were imparted to the control group. In this pre-test and post-test design, the measurable dependent factor was Depression, Anxiety, Stress, and Mindful Attention Awareness.

Figure 3.1: Preliminary-screening & After-screening equivalent subjects design

Preliminary-screening After-screening equivalent subjects design:



The present study was conducted on the basis of a quasi-experimental preliminary-screening after-screening design framework. The course was offered on students aged 17 to 25 years old. In this design, two groups were constructed of the samples selected by randomly. This study was served as positional and statistical plan to determining relationship between experimental group and control group/experimenter's observation in the main plan of the study.

Practice – Breathing is the key to any practice in mindfulness. Anyone can practice breathing awareness in any moment what so ever. It does not need any particular space or time to practice it. Mindfulness is a simple breathing awareness for about 10 minutes a day.

SAMPLE: The sample (120 adult students) selected for the present study was non-random sampling technique. The sample ranged between the age group of 18 to 25 years old. All the students were studying in class XII to Ph.D in West Bengal. Mindfulness Meditation therapy is useful and effective to enhance the attention; and on the other hand this therapy is reduced depression, anxiety and stress of the students, if they are ready to accept the training strategies. Consequently, the study included 120 samples, which were separated into two classes. Each class had 60 students; so, the first was control group (60) and the second was experimental group (60). Showing the gender wise sample distribution of the primary sample was given below.

Gender wise sample distribution

Present class	Male		Female		Total number
	Experimental	Control	Experimental	Control	
XII	05	07	06	06	24
UG	06	06	05	07	24
PG	09	02	04	12	27
B.ED	09	04	03	07	23
Scholar	09	08	04	01	22
Total	38	27	22	33	120

VARIABLES OF THE STUDY - The following variables are identified for the present study:

Explanatory Variable: It is also known as the independent variable or predictor variable. It elucidates variations in the response variable; in experimental study, and it is changed by the researcher. Gender, Age and Study class were used for the explanatory variables in this study.

Treatment Variable: In case of any intervention research, treatment variables are always considered as independent variable because those are the influencing factors that affect the dependent variables. In this study, the treatment variable is Mindfulness Meditation therapy techniques.

Dependent variable: Dependent variables are also referred to as responses variable or Left-hand-side variables. The dependent variable is the variable that is being measured or tested in an experimental situation. In this study Mindful Attention Awareness, Depression, Anxiety and Stress among the various levels students were the main dependent variables for tested in an experiment.

TOOLS – This study used some questionnaire tools for data collection from the students. DASS-21 and MAAS questionnaire were used in this research work.

STATISTICAL ANALYSIS - In the present study, the collected data obtained from assessment scores on the pre and post-assessment on Mindful attention awareness, Depression, Anxiety and Stress secured from 120 adult students have been analyzed. The data analyze has been done using the statistical software SPSS ver. 21.0. The descriptive statistics mean and SD were computed for all the variables. The Pared sample t-test and independent sample t-test wereused to test the significance of the levels of the students with respect to the different selected variables. Karl Pearson's correlation coefficients are used to study the relationship of each of the selected variables.

CHAPTER-IV: ANALYSIS AND INTERPRETATION OF DATA

Mean score distribution of Mindful attention awareness, stress, anxiety, and depression score among the treatment group.

Descriptive Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pre-MAA	50.82	60	10.250	1.323
Post-MAA	66.87	60	10.849	1.401
Pre-Stress	20.77	60	7.484	.966
Post-Stress	15.17	60	8.472	1.094
Pre-Anxiety	17.13	60	8.087	1.044
Pos-Anxiety	15.33	60	7.137	.921
Pre-Depression	21.37	60	7.859	1.015
Post-Depression	18.27	60	7.781	1.004

- ✓ The mean and SD scores in Pre-assessment of treatment group in the level of Mindful attention awareness is 50.82 and 10.25 then in the post-assessment of treatment group in the level of Mindful attention awareness is 66.87 and 10.85 respectively. The mean difference between the two groups is 16.05 and the difference was found statistically significant ($P < 0.01$).
- ✓ The mean and SD scores in Pre-assessment of treatment group in the level of stress is 20.77 and 7.48 then in the post-assessment of treatment group in the level of stress is 15.17 and 8.47; The mean difference between the two groups is 5.60 and the difference was found statistically significant ($P < 0.01$).
- ✓ The mean and SD scores in the pre-assessment of the treatment group in terms of anxiety is 17.13 and 8.09, respectively, whereas the mean and SD scores in the post-assessment of the treatment group in terms of anxiety is 15.33 and 7.14; The mean difference between the two groups is 1.80 but the difference was found statistically not significant.

- ✓ The mean and SD scores in Pre-assessment of treatment group in the level of depression is 21.37 and 7.86 then in the post-assessment of treatment group in the level of depression is 18.27 and 7.78; The mean difference between the two groups is 3.1 and the difference was found statistically significant ($P < 0.05$).

Mean score distribution of Mindful attention awareness, stress, Anxiety and depression score among control group.

Descriptive Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pre-MAA	52.73	60	10.148	1.310
Post-MAA	52.37	60	9.755	1.259
Pre-Stress	20.13	60	7.973	1.029
Post-Stress	20.27	60	7.068	.913
Pre-Anxiety	17.77	60	9.367	1.209
Pos-Anxiety	17.50	60	7.747	1.000
Pre-Depression	20.37	60	9.662	1.247
Post-Depression	19.80	60	8.082	1.043

The pre-test mean score of Mindful Attention Awareness, Anxiety and Self-esteem are slightly higher than the post-test score; on the other hand the post mean amount of stress and depression are slightly greater than the pre-test amount among the control group students.

Pre and Post test assessment on Dependent variables in treatment group according to study class.

Variables	HS LEVEL		UG LEVEL		PG LEVEL		B.ED LEVEL		SCHOLAR	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
MAA	35.55	70.00	53.36	66.55	52.77	59.08	55.58	68.67	55.23	70.62
Difference	34.45		13.19		6.31		13.09		15.39	
Stress	24.18	11.82	23.09	11.82	20.31	18.15	17.67	19.17	19.23	14.15
Difference	-12.36		-11.27		-2.16		1.50		-5.08	
Anxiety	22.55	14.73	18.18	13.82	15.38	19.23	14.67	15.67	15.69	12.92
Difference	-7.82		-4.36		3.85		1.00		-2.77	
Depression	22.73	16.36	26.73	17.45	21.23	22.77	19.17	18.50	17.85	15.85
Difference	-6.37		-9.28		1.54		-0.67		-2.00	

- The differences in MAA between pre-test and post-test are Significance for HS, UG, B.ED & Scholar level students of the tested team.
- For the tested team's HS, UG, and Scholar level students, the differences in Stress score between pre-test and post-test are significant.
- Only for the tested team's HS level pupils does the difference in Anxiety score between pre-test and post-test have any significance.
- Only the UG level students of the tested team have significant differences in Depression scores between pre-test and post-test.

Pre and Post test assessment on Dependent variables in control group according to study class.

Variables	HS LEVEL		UG LEVEL		PG LEVEL		B.ED LEVEL		SCHOLAR	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
MAA	47.93	47.07	49.50	50.25	56.14	54.86	51.55	51.64	60.67	60.44
Difference	-0.86		0.75		-1.28		0.09		-0.23	
Stress	20.43	19.86	19.67	19.50	22.00	22.43	23.64	24.18	13.11	13.78
Difference	-0.57		-0.17		0.43		0.54		0.67	
Anxiety	18.71	17.71	18.00	18.00	20.43	19.86	19.09	18.18	10.22	12.00
Difference	1.00		0.00		-0.57		-0.91		1.78	
Depression	22.86	23.43	22.83	22.33	23.71	22.00	19.09	17.09	9.56	10.67
Difference	0.57		-0.50		-1.71		-2.00		1.11	

In control group students, the mean difference in anxiety was more increase in the scholar students than the other levels of students; and the difference between pre test and post test is statistically significant. On the other hand, the same result are observed in the case of depression of B.Ed students.

Pre and Post test assessment on Dependent variables in treatment group according to Gender.

VARIABLES	Differences in male		Differences in female	
	PRE	POST	PRE	POST
MAA	50.26	66.82	51.77	66.95
DIFFERENCE	-16.56		-15.18	
STRESS	18.74	15.05	24.27	15.36
DIFFERENCE	3.69		8.91	
ANXIETY	15.32	14.95	20.27	16.00
DIFFERENCE	0.37		4.27	
DEPRESSION	21.79	17.63	20.64	19.36
DIFFERENCE	4.16		1.28	

Significant differences in MAA, Stress & Depression were observed between pre-test and post test among the male students in treatment group. But there were significant difference in MAA, Stress and Anxiety between Pre and Post test among the female students in control group.

CHAPTER-V: CONCLUSION

Mental health in adolescents is an important part of their general health and development, and as a result, its growing importance is causing concern around the world. The rapid rise in disruptive behaviour and unlawful behaviour among students of all levels is mostly due to a lack of skills to deal with their level of annoyance, impatience, and tension. Furthermore, pupils who have a lengthy history of repressed mental illness are at a higher risk of suicide, substance abuse, psychosomatic disorders, and other serious physical and mental problems. The incapacity of students to accommodate themselves, their parents, teachers, peer groups, academic demands, and other circumstances is largely responsible for their mental illness and aggressive behaviour. They are unable to adjust to their surroundings, which causes them to become progressively stressed, agitated, and angry, as well as decreasing their awareness. A person with a high level of well-being is more adaptable to his or her surroundings and has greater control over their awareness and bad emotions such as rage and violence. The Mindfulness-Based Intervention enhances students' attentive awareness in a variety of areas of their lives, including educational and meaningful activities. It improves the ability to react to complex mental and physical events. As a result, mindfulness-based activities cause structural and functional changes in the body as well as the mind. Mindfulness intervention is a set of psychosomatic activities that focuses on improving concentration by training attention and awareness (Medsker et al. 2016). These practises revitalise and nourish the critical parts of the brain that control emotional regulation, attention and concentration, and sleep, and thus students at all levels should be encouraged to use mindfulness techniques in everyday life by intentionally focusing awareness on all of their activities.

The present study estimated that in treatment group students, students' post assessment has much higher than the pre assessment in MAA. So, based on these results it can be concluded that the attention awareness of the students in treatment group has increased significantly through group Mindfulness intervention programme. Even in the case of the experimental group, it was found that the levels of stress and depression

significantly decreased after the test compared to the pre-test results. Group Mindfulness Intervention plays an important role in raising attention awareness among the students in various levels in education. H.S., U.G., B.Ed and scholar students of experimental group significantly increased their attention awareness from pre-test to post-test, but not much has been noticed among P.G. level students. Students were given group mindfulness intervention therapy compared to the pre-treatment stress. Treatment group HS, UG, and Scholar students had a much more significant reduction in post-treatment outcomes. And mindfulness intervention did not have much effect on stress reduction among pg and b.ed students.

The amount of MAA before taking the test in both male and female students increased significantly after treatment. The treatment of female students significantly reduced the anxiety, but not so much in the case of depression. Mindfulness plays an important role in the development of cognitive and regulatory skills in boys and girls. The effects of mindfulness intervention are particularly significant in reducing depression, the study found. However, mindfulness intervention has more impact in stress than anxiety. There was no significant difference in mindfulness, anxiety, stress and depression between the experimental group and the control group based on the students' pre-test. After the test, it was found that mindfulness interventions had a much greater positive effect on the advocates' awareness and mental health.

Based on the findings of this study, politicians, administrators, teachers, parents, educators, and others may implement some realistic approaches for adopting Mindfulness Intervention on Mental Health and Well-being. We are all working toward the same goal: ensuring the well-being of the future generation.

REFERENCES

- Kabat-Zinn, J. (1990). Mindfulness-Based Interventions in Context: Past, Present, and Future. *Clinical Psychology Science and Practice*, Volume10, Issue-2, June 2003, Pages 144-156
- Agarwal, A. & Dixit, V. (2017). **The role of Meditation on Mindful awareness and Life Satisfaction of Adolescents**. *Journal of Psychosocial Research*, ISSN 0973-5410 print/ISSN 0976-3937 online, ©2017 Prints Publications Pvt. Ltd., Vol. 12, No. 1, 2017, Pp-59-70
- Maniago, J.D. et. al. (2021). **Improving mindful attention awareness among Saudi nursing students through autonomous sensory meridian response stimulation**. *Journal of Nursing and Midwifery Sciences*, Mazandaran University of Medical Sciences, Year: 2021, Volume: 8, Issue: 2, Page: 99-105.
- Janssen, M. et. al. (2018). **Effects of Mindfulness-Based Stress Reduction on employees' mental health: A systematic review**. *National Library of Medicine, National center for biotechnology information*, 2018 Jan 24;13(1):e0191332. doi: 10. 1371/journal.pone.0191332 . eCollection 2018.
- Gouda, S. et.al (2016). **Students and Teachers Benefit from Mindfulness-Based Stress Reduction in a School-Embedded Pilot Study**. *Frontiers in Psychology*, April 2016, Volume 7, Article 590.
- Fumero, A. et. al. (2020). **The Effectiveness of Mindfulness-Based Interventions on Anxiety Disorders. A Systematic Meta-Review**. *European journal of investigation in Health, Psychology and Education*, vol-10, issue- 3, 2020.
- Hofmann, S. G., & Gómez, A. F. (2017). **Mindfulness-Based Interventions for Anxiety and Depression**. *Psychiatric Clinics of North America*, 40(4), 739–749. <https://doi.org/10.1016/j.psc.2017.08.008>

- Zhang, P et. al. (2018). **Effects of Mindfulness-Based Stress Reduction on Depression in Adolescents and Young Adults: A Systematic Review and Meta-Analysis**. Front. Psychol., 21 June 2018, <https://doi.org/10.3389/fpsyg.2018.01034>(<https://doi.org/10.3389/fpsyg.2018.01034>).
- Best, W.J. & Kahn, W.J. (2008): **Research in Education**, Delhi: Pearson, PHI Learning Pvt. Ltd.