International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

A Study of Guided Intervention through Spiritual Method of 'AUM' Meditation for Holistic Recovery from Medical Conditions of Depression, Anxiety, Sleep Disorder and Fluctuation in Vital Signs Respiratory Rate and Blood Pressure; Caused by Psychological Trauma of COVID-19 Pandemic

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Abstract: ***Introduction: The study is dedicated to objectively map and evaluate holistic recovery among person suffering from medical conditions of depression, anxiety, sleep disorder and fluctuation in vital signs respiratory rate and blood pressure; caused by the psychological trauma of COVID-19 pandemic which has critically affected the whole humanity of the world specifically during second wave of the pandemic. Plan of study: The guided intervention of scientific spiritual method of 'AUM (OM, ॐ)' meditation was done for 30 days among the study population which also included person of treated mild to severe symptoms of COVID-19 as well as person under threat because of demise of their family members due to COVID-19 and disruption of life as well as fear of death, social isolation etc. Study population: The study population comprised 131 persons, selected using probability random sampling technique, out of which 130 person of age group 27 to 65 responded to the intervention. Methodology: The evaluation of test parameter with intervention for 30 days was done through qualitative study adopting published standardized questionnaire pre-post intervention among study population. Result: Overall symptomatic improvement in test parameters indicate potentialities and effectiveness of the intervention adopted; (i) Recovery in depression-overwhelming 77.69% respondents reported no depression, 19.23% of respondents reported mild depression, 3.08% of the respondents reported moderate depression and no any respondent (NIL) reported severe depression, a definite recovery from pre intervention 63.08% suffering from severe depression, 19.23% suffering from moderate depression, 10.77% suffering from mild depression and 6.92% with no depression. (ii) Recovery in Anxiety-overwhelming 79.23% respondents reported no anxiety, 14.62% reported mild anxiety, 6.15% reported moderate anxiety and no respondent (NIL) reported severe anxiety a definite recovery from pre-intervention 53.08% respondents suffering from severe anxiety, 23.85% suffering from moderate anxiety, 16.15% respondents suffering from mild anxiety and 6.92% having NIL symptom of anxiety. (iii) Recovery in sleep disorder-overwhelming 76.92% respondents reported no sleep disorder, 13.85% of respondents reported mild sleep disorder, 9.23% of the respondents reported moderate sleep disorder and no any (NIL) respondent reported severe sleep disorder a definite recovery from pre intervention 56.15% respondents having severe sleep quality disorder, 20.00% reporting moderate sleep quality disorder, 16.92% reporting mild sleep disorder and 6.92% having no sleep disorder. (iv) Recovery in fluctuation of Respiratory rate-overwhelming 28.50% respondents reported normal ie no fluctuation, 49.20% respondents reported mild fluctuation, 17.70% reported moderate fluctuation and only 4.60% respondent reported severe fluctuation in respiratory rate, a definite recovery from pre intervention, 33.08% respondents having severe fluctuation in respiratory rate, 36.92% reporting moderate fluctuation, 18.46% reporting mild fluctuation and 11.54% reporting normal respiration rate. (v) Recovery in fluctuation of Blood pressure-overwhelming 44.62% respondents reported normal i.e. no fluctuation, 32.31% respondent reported Pre HTN,13.08% reported HTNgd I fluctuation and only 10.00% respondent reported HTNgd II fluctuation in Blood pressure, a definite recovery from pre intervention, 46.92% respondents reporting HTNgd II fluctuation in Blood pressure, 25.38% reporting HTNgd I fluctuation, 19.23% reporting pre HTNgd fluctuation and 8.46% reporting normal Blood pressure. Conclusion: with the evaluation of pre and post intervention, it is concluded that the spiritual method of 'AUM (OM, ॐ)' meditation has definite, objective and positive therapeutic effect in recovery from depression, anxiety and sleep disorder as well as recovery from fluctuation in vital signs Respiratory Rate and Blood Pressure; the psychological trauma in the severity of the situation caused by COVID-19 pandemic.***

Keywords: COVID-19, depression, anxiety, sleep disorder, AUM (OM, ॐ), healing, fear of death

1. Introduction

The world health organization (WHO) declared Infectious disease COVID-19 as a pandemic which became one of the extreme challenges for survival faced by humanity in entire world. To tackle the rapid rise of cases, in India and to curb the community spread, national level "lockdown" was declared as an emergency strategy. But it had some degree

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of psychological impact on the children, young and old, people from all walk of life.

1.1 A over view of the psychological trauma during second wave of COVID-19 pandemic:

The exponential surge in infections during second wave of COVID-19 had devastating effect on the global health system with unprecedented emergency and far-reaching repercussion on mental health as well as on life quality of whole humanity; reported even triggering damages in the central nervous system causing increased psychiatric disorder (e.g., posttraumatic stress disorder PTSD, substantial distress, sleep disorder, fluctuation in vital signs Respiratory Rate and Blood Pressure) [1]. Disruption of life, hospital quarantine, exposure to unexpected deaths, separation from families, the recurring imagery of the ICUs/ crematoriums, fear of survival, social isolation, physical discomfort, economic crisis and hardships aggravated psychological trauma in general mass even among those persons who were not affected from COVID-19. The ripple effects of all round crisis were so severe that there was exponential increase in cases of suicide and abnormal behaviour.

1.2 Depression, anxiety, sleep disorder, fluctuation in vitals respiratory rate and blood pressure

Depression: It is a mental state affecting thoughts, behaviour, motivation, concentration, feelings, and sense of well-being causing sufferings of significant increase or decrease in appetite, sleep, low mood (feeling sad, irritable, empty), loss of pleasure or interest in activities. It may be associated with feelings of dejection, hopelessness and suicidal thoughts. A depressive episode can be categorised as mild, moderate or severe depending on the number and severity of symptoms as well as the impact on the individual's functioning poorly at work, at school and in the family. Depression, with recurrent moderate or severe intensity, may become a serious health condition. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. As per WHO approximately 280 million people in the world have depression with an estimated 3.8% of the population affected, including 5.0% among adults and 5.7% among adults older than 60 years [2]. It can cause the affected person to suffer greatly and at its worst, depression can lead to suicide, over 700 000people die due to suicide every year. Suicide is the fourth leading cause of death in 15–29-year-olds. The study showed a significant rise in depression symptoms and a reduction in overall wellbeing during lockdown/ covid-19pandemic compared to the previous Autumn (2019). Levels of clinical depression in those surveyed in the study were found to have more than doubled, rising from 14.9 per cent in Autumn 2019 to 34.7 percent in May/June 2020. [3]. Depression could worsen the prognosis of COVID-19; for example, psychological distress and depression may have a negative impact on patients' immune system response (Leonard, 2001). Patients with depression may also have negative attitudes towards antiviral therapy, which may reduce their treatment adherence and recovery. Previous studies found that patients could experience persistent depression even after the outbreak of infectious diseases.

Anxiety: It is characterized by an unpleasant state of uneasiness, worry and inner turmoil with feelings of dread over anticipated events [4]. It is often accompanied by nervous behaviour such as pacing back and forth, somatic complaints, and rumination [5]. Though anxiety is a typical human response, when excessive or persisting beyond developmentally appropriate periods, it may be diagnosed as an anxiety disorder. Symptoms may include excessive worry, restlessness, trouble sleeping, exhaustion, irritability, sweating, trembling, muscular tension, fatigue, breath, tightness in the abdominal region, nausea, and problems in concentration. The physiological symptoms of anxiety may include-neurological problems such as headache, paraesthesia, fasciculations, vertigo or presyncope, digestive (as abdominal pain, nausea, diarrhoea, indigestion, dry mouthorbolus). Stress hormones released in an anxious state have an impact on bowel function and can manifest in physical symptoms that may contribute to or exacerbate IBS, respiratory (as shortness of breath or sighing breathing),cardiac (as palpitations, tachycardia, or chest pain),muscular (as fatigue, tremors, or tetany), cutaneous (as perspiration or itchy skin),euro-genital (as frequent urination, urinary urgency, dyspareunia, or impotence, chronic pelvic pain syndrome).Anxiety is considered to be a very serious psychiatric illness.

Sleep disorder: It is a medical condition that affect overall health, productivity as well as quality of life. It also imposes threat to life as it compromises alertness and make person prone to accident. The symptom includes irregular sleep and wake cycle, difficulty in falling asleep, poor appetite and low wellbeing. It causes unusual pattern of breathing. The common type of sleep disorder includes Insomnia, sleep aponia, restless legs syndrome (RLS), narcolepsy etc. COVID-19 pandemic caused serious sleep disorder symptoms to general mass which had impairing impact on life quality and health of the people.

Fluctuation in vitals respiratory rate and blood pressure: Vital indicate most basic body functions which are useful in detecting and monitoring medical problems. Respiration rate and Blood pressure are measured/ correlated with the disease and prognosis of disease. Vitals are closely related with mental, emotional and physical health of the person. In the medical condition caused due to psychological trauma of COVID 19, the vitals have been found to be seriously affected indicating serious imbalance in mind-body system.

2. Background of Study

2.1 The spiritual science of 'AUM (OM, ॐ)':

'AUM (OM, ॐ)' is the primitive and the eternal sound of creation, the Rhythm of Universe, as realised and propounded by Vedic Sages of ancient Indian origin. The Hindu darshan (philosophy) has established 'AUM (OM, ॐ)' as the form of Supreme Consciousness, the Ultimate, the Creator of Universe. The science of Indian metaphysics has put emphasis on 'AUM (OM, ॐ)' as Spiritual Energy of highest order. 'AUM (OM, ॐ)' has been found to be

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objectively effective in imparting healing at physical-mental-emotional-spiritual level, strengthening inner-strength, willpower and attaining natural health of the practitioner.

2.2 'AUM (OM, ॐ)' in other schools of thought:

In other schools of thought among different religions/ panth also, AUM (OM, ॐ) has been established as form and Syllable of GOD which is chanted independently as well as before and after a spiritual recitation. AUM (OM, ॐ) is considered sacred in schools of Buddhism. In Tibetan Buddhism, "Om Mani Padme Hum"is the most popular mantra known to be one of most effective.In Japanese 'Mikkayo Buddhism', OM is known as beginning and end of the Universe. In jainism, AUM (OM, ॐ), ekaksara, has been established as "Panca-Parameshthi", the five parameshthis: "arihant, ashiri, acharya, upajjhaya, muni". It is also called Ekaksara Namokar Mantra. In Sikhism, OM is established as Ik Onkar, i.e. The Creator (Onkar) is one with creation. It is the opening Wordof the Guru Granth Sahib.

2.3 Concept of Holistic Health

World Health Organigation (WHO) has defined holistic health as a state of wellness encompassing the physical, mental, emotional, social, and spiritual components of health. It is a form of treatment that looks at all aspects of the health and wellness. Spiritual dimension of human existence has now been globally accepted as fourth dimension which has definite impact on many as pets of human health, well-being and happiness. The correlation between physical-mental-emotional health with spiritual aspects is a leading area of interest and research in ongoing era. The healthcare system based on conventional medication still has a tendency to approach them separately. But Spiritual wellness considers totality of human life; the synergy of 'Self' with others of life environment; the family, the community, Mother-Nature, the Universe, and the consciousness 'With-in' as described in ancient Indian Wisdom propounded by sacred Vedas and holy Gita. This also relates to inner-strength, will-power, purpose and meaning as well as guiding ethico-values and beliefs of life.

3. Significance of Study

The conceptual background of this study is based on the knowledge of spiritual science explored by Vedic Sages of ancient Hindu lineage. The vibration, rhythm and energy of 'AUM (OM, ॐ)' has potentiality of providing natural healing at mind-body level, strengthening inner health, mental strength adding to quality of life and curing of diseases. Accordingly, intervention was conducted to evaluate the therapeutic effect of the spiritual contemplation and integration with Rhythm-Eternal vibration-Energy of 'AUM (OM, ॐ)'. The study is significant providing a new ray of hope and light to manage psychological trauma like depression, anxiety, sleep disorder and the basic health parameters/ vitals such as Blood pressure and Respiration rate etc.

4. Objective of Study

The objective of the research is to explore and evaluate holistic recovery through intervention of spiritual method of AUM (OM, ॐ) meditation among person suffering from medical conditions of depression, anxiety, sleep disorder and fluctuation in vital signs respiratory rate and blood pressure; caused by the psychological trauma of COVID-19 pandemic.

4.1 Parameters of the Research Study

The subject study included following parameters indicating holistic recovery in medical conditions caused by the psychological trauma of COVID-19 pandemic–

1) Recovery in depression
2) Recovery in anxiety,
3) Recovery in sleep disorder
4) Recovery in fluctuation of respiratory rate,
5) Recovery in fluctuation of blood pressure;

5. Plan of Study

The research module consisted of providing scientific knowledge and intervention of spiritual method of AUM (OM, ॐ) meditation. The study population persons were explained the conceptual background of the spiritual science of AUM (OM, ॐ) and they were imparted intensive training in the spiritual method of AUM (OM, ॐ) meditation.

The Intervention team:

Chief resource person for providing intervention Dr. Manoj Kumar Bimal, Spiritual Scientist and Guide, AUM (OM, ॐ) meditation therapist, Reiki Grand Master and Teacher, was assisted by following affiliated members of Divya Jyoti Sansthan:

- Pushkar kumar vimal : Reiki Master, AUM (OM, ॐ) & Reiki Healer, M.Sc Physics, LLb,MBA,B.Ed
- Mrs Ranjita Shrivastava: AUM (OM, ॐ) & Reiki Healer, M.A Political Science, B.Ed
- Mrs Susmita vimal: AUM (OM, ॐ) & Reiki Healer,M.A PsycologyMr Rajesh Kumar : AUM (OM, ॐ) & Reiki Healer, B.Sc. (Hon.) Math
- Mrs Manju kumari: AUM (OM, ॐ) & Reiki Healer, MAPsychology, B. Ed
- Mr Sourav Kumar: AUM (OM, ॐ) & Reiki Healer, Diploma in Civil Engg
- Mrs Kamini Jha: AUM (OM, ॐ) & Reiki Healer, M. A.Psychology, B. Ed., Ph.DScholor
- Mr Randhir Kumar: AUM (OM, ॐ) & Reiki Healer,BA

Out of the 131 persons of study population selected using probability random sampling technique, 130 persons of age group 27 to 65 (consisting of 48.48% female and 51.52% male) responded and attended the said interventionof the said spiritual process of AUM (OM, ॐ) meditation for 30 daysand also participated in the pre and post intervention test to map the effect of intervention through published standardized questionnaire 'Beck Depression Inventory' for depression (BDI), 'Hamilton Anxiety Rating Scale (HAM-A)' for anxiety, 'Sleep Quality Assessment Index (PSQI)'

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for sleep disorder. All COVID protocol was maintained during training to participants of study.

(i) **The beck depression inventory (BDI):** It is a published standard questionnaire with 21 items, self-report rating inventory that measures characteristic attitudes and symptoms of depression.

(ii) **(ii) Hamilton Anxiety Rating scale (HAM-A):** The HAM-A is published questionnaire/ rating scale developed to measure the severity of anxiety symptoms. It is widely used in both clinical and research settings.

(iii) **The Pittsburgh Quality Index (PSQI) scale:** It is an effective instrument used to measure the quality and pattern of sleep-in adults. It differentiates "poor" from "good" Sleep quality by measuring seven areas (components)-Subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, Sleep disturbances, use of sleep medications and day time dysfunction over the last month.

The basic health parameters/ vitals namely Respiratory Rate and Blood pressure were measured by instrument.

6. Result and Finding

The study results after evaluation indicate confirmative positive changes in the parameters among entire study population after intervention through the spiritual method of 'AUM (OM, ॐ)' meditation.

6.1 Compatibility and acceptance of spiritual method of AUM (OM, ॐ) meditation

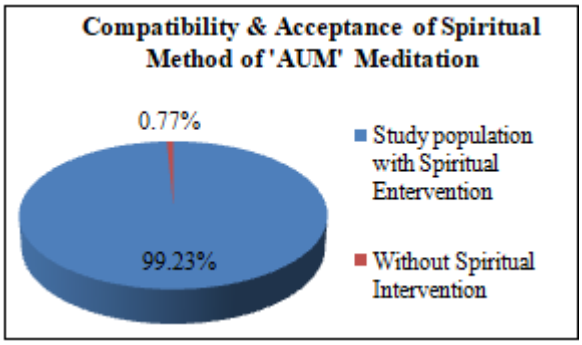


Figure 1

It was found that 99.23% of study population accepted the intervention of the spiritual method of AUM (OM, ॐ) meditation. Thus, there is compatibility and acceptance of spiritual method of 'AUM (OM, ॐ)' meditation among people belonging to different strata of age, gender, class, creed, belief and educational background.

6.2 Holistic recovery after intervention of spiritual method of AUM (OM, ॐ) meditation in medical conditions caused by the psychological trauma of COVID-19 pandemic

6.2.1 Recovery in depression after intervention with spiritual method of AUM (OM, ॐ) meditation

After evaluation of pre and post intervention study data, the result is summarised as hereunder:

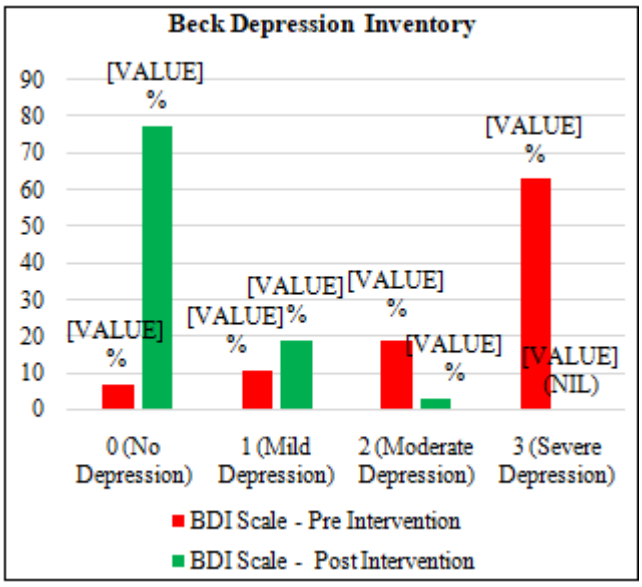


Figure 2

In the pre-test scenario, about sixty three percent of the total respondents were reported to have a BDI score of 3 (severe depression), for another nineteen percent, the score was 2 (moderate depression) and for about eleven percent (10.8%) score was 1 (mild depression). For only around seven percent of the total respondents, the BDI scale score was 0.

In the post-test scenario, the situation got reversed-for an overwhelming about seventy eight percent of the total respondents, the BDI scale score was reported to be 0 (no symptom of depression), while BDI score 3 (severe depression) was NIL i.e. no any respondent of study population reported severe depression, for only about three percent of the respondents, the score reported was 2 (moderate depression) and for about nineteen percent study population BDI score was 1 (mild depression)-Ref. fig 2.

The mean value in the post-test scenario has come down to only 0.25 from a level of 2.38 which was recorded at the pre-test scenario. The standard deviation is also less in post-test situation (0.503) from a level of 0.935 recoded at the pre-test period. The median value in the pre-test situation is 3, which has come down to 0 in the post-test (Ref-Table 1).

Further table-2 displays the sum of the positive and negative ranks for the test. We can see that 117respondents had a lower BDI- (scale) score after treatment and only 1 had a higher score, while 12 respondents were observed to have ties.

Reference is drawn to Table-3 & 4 which shows the Test statistics. We should look p-value, which is row A symp. Sig. (2-tailed). If the p-value is higher than 0.05, we fail to reject the null hypothesis. **But here the p-value is 0.000. So, we must reject the null hypothesis and conclude that there is a difference in BDI (Scale) score before and after the intervention. Since we have a relatively small sample (130), we performed the exact test. The analysis indicates**

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definite improvement and recovery among study population after intervention.

Table 1

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
BDI- (SCALE)[Pre-Test]	130	2.38	0.935	0	3	2.00	3.00	3.00
BDI- (SCALE) [Post-Test	130	0.25	0.503	0	2	0.00	0.00	0.00

Table 2: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
BDI- (SCALE)[Post-Test] - BDI- (SCALE)[Pre-Test]	Negative Ranks	117[a]	59.90	7008.50
	Positive Ranks	1[b]	12.50	12.50
	Ties	12[c]		
	Total	130		
a. BDI- (SCALE)[Post-Test<BDI- (SCALE)[Pre-Test] **b.** BDI- (SCALE)[Post-Test >BDI- (SCALE)[Pre-Test] **c.** BDI- (SCALE)[Post-Test=BDI- (SCALE)[Pre-Test]				

Table 3

Test Statistics[a]	
	BDI- (SCALE)[Post Test – BDI- (SCALE)[PreTest]
Z	-9.639[b]
Asymp. Sig. (2-tailed)	0.000
Exact Sig. (2-tailed)	0.000
Exact Sig. (1-tailed)	0.000
Point Probability	0.000
a. Wilcoxon Signed Ranks Test b. Based on positive ranks.	

Table 4

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between BDI- (SCALE) [Pre-test] and BDI- (SCALE) [Post-test] equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.000	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				

6.2.2 Recovery in anxiety after intervention with spiritual method of 'AUM (OM, ॐ)' meditation

After evaluation of Pre and post intervention study data, the result is summarised as hereunder:

Hamilton Anxiety Inventory

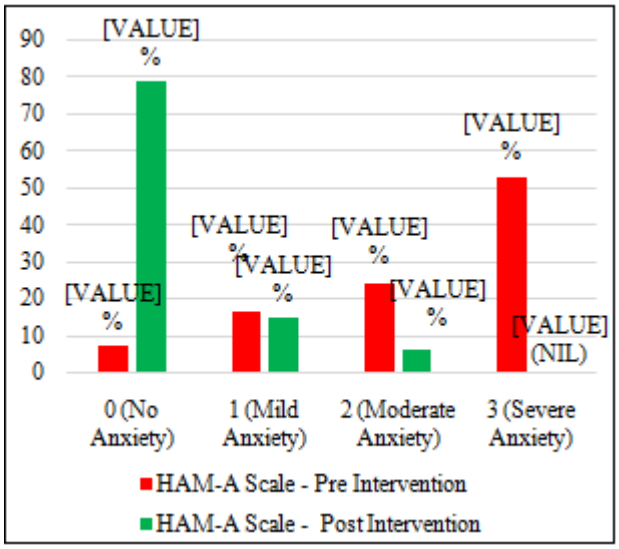


Figure 3

Reference is drawn to Fig – 3, which indicates that, in the pre-test scenario, about fifty three percent of the total respondents was reported to have a HAM-A score of 3 (severe anxiety), for another twenty three percent the score is 2 (moderate anxiety), and for about sixteen percent respondents score is 1 (mild anxiety). For only about around seven percent of the respondents, the HAM-A scale score was 0.

In the post intervention scenario, the situation got improved remarkably-For overwhelming about seventy nine percent of the total respondents, the HAM-A scale score was reported to be 0 (no symptom of anxiety), while HAM-A score 3 (severe anxiety) was NIL i.e. no any respondent of study population reported severe anxiety post intervention, for only about six percent of the respondents, the score reported was 2 (moderate anxiety) and for about fifteen percent study population HAM-A score was 1 (mild anxiety). The mean value in the post-intervention scenario has come down to only 0.27 from a level of 2.23 which was recorded at the pre-test scenario. The standard deviation is also a bit less in post-test situation (0.961) from a level of 0.568 recoded at the pre-test period. The median value in the pre-test situation is 2 and, in the post-test, it was 0 (Ref Table-5)**.** Further Ref Table – 6, displays the sum of the positive and negative ranks for the test. We can see that 112 respondents had a lower HAM-A- (scale) score after treatment and only 5 had a higher score, while 13 respondents were observed to have ties. Table – 7 & 8, shows the Test statistics. The p-value, is row Asymp. Sig. (2-tailed). If the p-value is higher than .05, we fail to reject the null hypothesis. **But here the p-value is 0.000 so, we must reject the null hypothesis and conclude that there is a difference in HAM-A scores before and after the**

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intervention. Since we have a relatively small sample, (130) we performed the Exact test. The inventory data analysis confirms definite improvement from anxiety among study population after intervention.

Table 5

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
HAM-A (SCALE) [Pre-Test]	130	2.23	0.961	0	3	2.00	3.00	3.00
HAM-B (SCALE) [Post-Test	130	0.25	0.568	0	2	0.00	0.00	0.00

Table 6: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
HAM- (SCALE)[Post-Test] - HAM- (SCALE)[Pre-Test]	Negative Ranks	112[a]	60.54	6781.00
	Positive Ranks	5[b]	24.40	122.00
	Ties	13[c]		
	Total	130		
a. HAM- (SCALE)[Post-Test<HAM- (SCALE)[Pre-Test] b. HAM- (SCALE)[Post-Test >HAM- (SCALE)[Pre-Test] c. HAM- (SCALE)[Post-Test=HAM- (SCALE)[Pre-Test]				

Table 7

Test Statistics	
	HAM-A (SCALE)[Post Test]-HAM-A (SCALE)[Pre Test]
Z	-9.246[b]
Asympt. Sig. (2-tailed)	0.000
Exact Sig. (2-tailed)	0.0008
Exact Sig. (1-tailed)	0.000
Point Probability	0.000
a.Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 8

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between HAM-A (SCALE) [Pre-test] and HAM-A-(SCALE) [Post-test] equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.000	Reject the null hypothesis
Asymptotic significances are displayed. The significance level is .050.				

6.2.3 Recovery in sleep disorder after intervention with spiritual method of "AUM" meditation.

After Evaluation of Pre and Post intervention study data, the result is enumerated as noted here–

Pittsburgh Sleep Quality Index (PSQI)

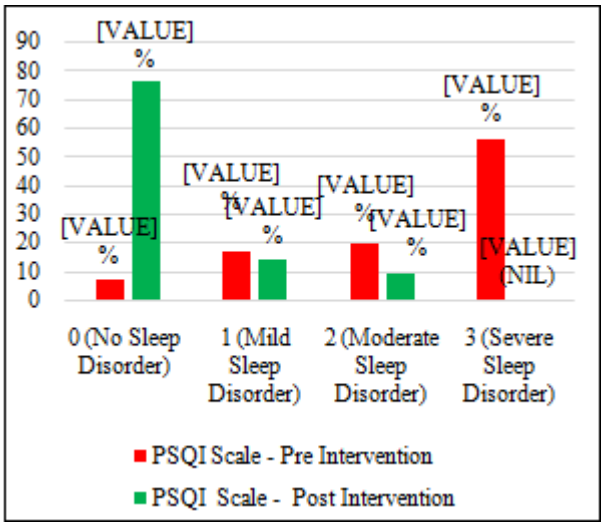


Figure 4

Ref fig-4, which indicates that in the pre intervention scenario, about fifty-six percentage of the total respondents were reported to have a PSQI 3 (severe sleep disorder), for another twenty percent, the score is 2 (moderate sleep disorder), and for seventeen percent score is 1 (mild sleep disorder). For only about seven percent of the total respondents, the PSQI scale score was 0. **In the post test scenario, the situation got reversed-**About seventy seven percent of the total respondents reported that they were having a good sleep with PSQI score of 0. The PSQI scale score 3 (severe sleep disorder) was not reported by any respondent of study sample. For about nine percent of study population, the PSQI score reported was 2 (moderate sleep disorder) and the reported PSQI scale score was 1 (mild sleep disorder) for fourteen percent respondents.

Ref. table-9 wherein the mean value in the post-test scenario has come down to 0.32 from a level of 2.25 which was recorded at the pre-test scenario. The standard deviation is less in post-intervention situation (0.638) from a level of 0.975 recoded at the pre-intervention test. The median value in the pre-intervention situation was 3which improved in the post-intervention to 0. Ref table-10 which displays the sum of the positive and negative ranks for the test. We can see that 117respondents had a lower PSQI- (scale) score after treatment and only 6 had a higher score, while 7 respondents were observed to have ties. Ref table-11 & 12 which shows the Test statistics. We should look p-value, which is row Asymp. Sig. (2-tailed). If the p-value is higher than.05, we fail to reject the null hypothesis. **But here the p-value is 0.000, so we must reject the null hypothesis and conclude that there is a difference in PSQI- (scale) scores before and after the intervention. Since we have a relatively**

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small sample (130), we performed the Exact test. In other words, sleep quality has improved a lot.

Table 9

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
PSQI- (SCALE) [Pre-Test]	130	2.25	0.975	0	3	2.00	3.00	3.00
PSQI-B (SCALE) [Post-Test	130	0.32	0.638	0	2	0.00	0.00	0.00

Table 10: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
PSQI- (SCALE)[Post-Test] - PSQI- (SCALE)[Pre-Test]	Negative Ranks	117[a]	63.94	7481.00
	Positive Ranks	6[b]	24.17	145.00
	Ties	7[c]		
	Total	130		

a. PSQI- (SCALE)[Post-Test<PSQI- (SCALE)[Pre-Test]
b. PSQI- (SCALE)[Post-Test >PSQI- (SCALE)[Pre-Test]
c. PSQI- (SCALE)[Post-Test=PSQI- (SCALE)[Pre-Test]

Table 11

Test statistics [a]	
	PSQI- (SCALE)[Post Test]- PSQI- (SCALE)[Pre test]
Z	-9.413[b]
Asymp. Sig. (2-tailed)	0.000
Exact Sig. (2-tailed)	0.000
Exact Sig. (1-tailed)	0.000
Point Probability	0.000
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 12

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between PSQI- (SCALE) [Pre-test] and PSQI-A- (SCALE) [Post-test] equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.000	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				

6.2.4 Recovery in fluctuation of Respiratory rate after intervention with spiritual method of 'AUM (OM, ॐ)' meditation.

Evaluation of Pre and Post intervention study data reveal the results as enumerated here:

Respiratory Rate Assessment

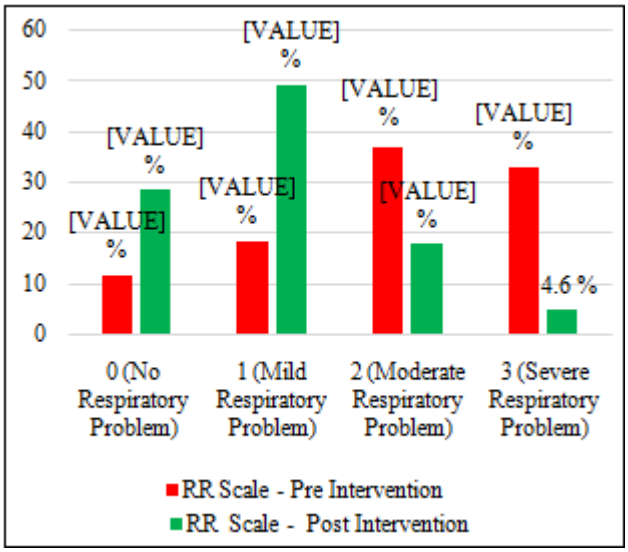


Figure 5

In the pre-test scenario, around seventy percent of the respondents suffered from moderate to severe respiratory problems (33.08% suffering from severe and 36.92 % suffering from moderate respiratory problem). The chance of having a higher level of trauma would be more for those seventy percent of the respondents. Around nineteen percent respondents suffered from mild respiratory problem. Around eleven percent were normal with no problem. **In the post-test situation, it is observed that the situation has improved a lot-**The percentage of respondents reporting severe respiratory problem came down to only 4.6% and only 17.7% of respondents reported moderate problem. Thus, less than twenty three percent of total respondents reported moderate to severe respiratory problem that is significantly lesser in comparison to the pre-test scenario. **The treatment seems to work significantly reducing the respiratory problem as also the level of anxiety. One can notice that around eighty percent of the respondents reported their respiratory rates recovered to normal/ mild** (Ref-Fig 5).

From the table-13, it can be seen that both the average score and the median value in post-intervention scenario fell significantly showing the effectiveness of the treatment.

Ref-table 14 where in the mean ranks (here 62, the respiratory rate in the post-intervention scenario is less than the respiratory rate in the pre-test level) indicates whether there are more high ranks for the positive differences, or for the negative differences, or whether there is a fairly equal spread of ranks. The table indicates significant recovery.

Ref-table 15 & 16whereinwe use the 'Exact Sig. (2-tailed)' p-value (p<0.001) [since the sample size is not

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large], the null hypothesis is rejected. It is thus concluded that there is a significant difference between the conditions. The analysis confirms significant recovery in respiratory problems among study population.

Table 13

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
PSQI- (SCALE) [Pre-Test]	130	1.92	0.989	0	3	1.00	2.00	3.00
PSQI-B (SCALE) [Post-Test	130	0.98	0.807	0	3	0.00	1.00	1.00

Table 14: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
PSQI- (SCALE)[Post-Test] - PSQI- (SCALE)[Pre-Test]	Negative Ranks	62[a]	31.50	1953.00
	Positive Ranks	0[b]	0.00	0.00
	Ties	68[c]		
	Total	130		

a. PSQI- (SCALE)[Post-Test<PSQI- (SCALE)[Pre-Test]
b. PSQI- (SCALE)[Post-Test >PSQI- (SCALE)[Pre-Test]
c. PSQI- (SCALE)[Post-Test=PSQI- (SCALE)[Pre-Test]

Table 15

Test Statistics[a]	
	PSQI- (SCALE)[Post Test]-PSQI- (SCALE)[Pre Test]
Z	-7.021[b]
Asymp. Sig. (2-tailed)	0.000
Exact Sig. (2-tailed)	0.000
Exact Sig. (1-tailed)	0.000
Point Probability	0.000
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 16

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between RR [Pre-test] and RR [Post-test] equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.000	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				

6.2.5 Recovery in fluctuation of Blood pressure after intervention with spiritual method of 'AUM (OM, ॐ)' meditation

Evaluation of Pre and Post intervention study data reveal results as noted below:

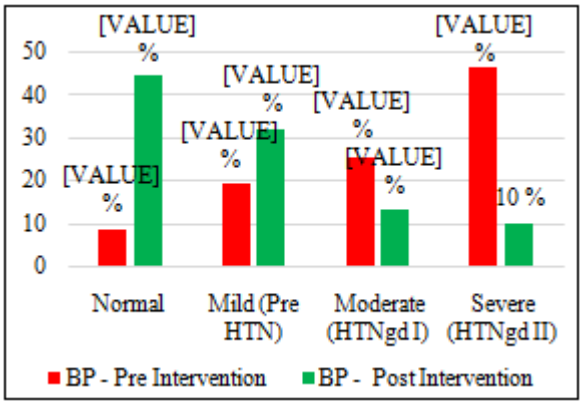


Figure 6

Ref Fig-6 in the pre-test scenario, around forty seven percent of the respondents suffered from HTNgd II (severe blood pressure) problems, about twenty-five present suffering from HTNgd I (moderate blood pressure) problems, about nineteen percent suffering from Pre HTN (mild blood pressure) problems and only about eight percent normal blood pressure. The chance of having a higher level of psychological trauma would be more for those seventy two percent of the respondents suffering from severe to moderate Blood pressure problems.

In the post-test situation, it is observed that the situation has improved a lot-The percentage of respondents reporting severe blood pressure HTNgd II problem came down to only ten percent and only thirteen percent reported with HTNgd I (moderate blood pressure problem). Thirty two percent reported Pre HTN mild blood pressure problem and forty five percent respondents reported normal blood pressure. **Thus, there is significant and definite improvement in comparison to the pre-intervention scenario. The treatment seems to work significantly reducing the blood pressure problems as also the level of trauma and one can notice around eighty percent of the respondents reported that their blood pressure rates were normal to mild**.

Ref-Table-17 & 18 which displays the sum of the positive and negative ranks for the test. We can see that 80 respondents had a lower BP after treatment and only 6 had a higher score while 44 respondents were observed to have ties.

Ref table-19 & 20 which shows the Test statistics. We should look p-value, which is row A symp. Sig. (2-tailed). If the p-value is higher than 0.05, we fail to reject the null

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hypothesis. **But here the p-value is 0.000. So, we must reject the null hypothesis and conclude that there is a difference in PSQI- (scale) scores before and after the intervention. Since we have a relatively small sample (130), we performed the Exact test. In other words, there is significant improvement in Blood pressure problems among study population**.

Table 17

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
BP [Pre-Test]	130	2.11	0.998	0	3	1.00	2.00	3.00
BP [Post-Test	130	0.88	0.985	0	3	0.00	1.00	1.00

Table 18: Wilcoxon Signed Ranks Test

Ranks				
		N	Mean Rank	Sum of Ranks
BP[Post-test] – BP[Pertest]	Negative Ranks	80[a]	45.41	3633.00
	Positive Ranks	6[b]	18.00	108.00
	Ties	44[c]		
	Total	130		
a. BP[Post-test] < BP[Pertest]				
b. BP[Post-test] > BP[Pertest]				
c. BP[Post-test] = BP[Pertest]				

Table 19

Test Statistics[a]	
	BP-[Post Test]–BP [Pre Test]
Z	-7.703[b]
Asymp. Sig. (2-tailed)	0.000
ExactSig. (2-tailed)	0.000
ExactSig. (1-tailed)	0.000
PointProbability	0.000
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 20

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between BP [Pre-test] and BP [Post-test] equals 0.	Related-Samples Wilcoxon Signed Rank Test	0.000	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				

7. Summary of the analysis/evaluation of the Pre-Post Intervention data

Based on the above enumerated statistical analysis/ evaluation of pre-post intervention data for test parameters of medical condition caused by Psychological Trauma of Covid-19, the result summery of data analysis has been presented in table-21 below**.**

Accordingly, the analytic summery is enumerated here under:

'Recovery in depression' after intervention with spiritual method of AUM (OM, ॐ) meditation:

a) Pre Intervention test data indicate that, out of total study sample, 63.08% were suffering from severe depression, 19.23% were suffering from moderate depression, 10.77% were suffering from mild depression and 6.92% only reported no depression.
b) Post intervention test data, indicate definite improvement; overwhelming 77.69% study population reported no depression (BDI scale score 0), 19.23% of respondent reported mild depression (BDI scale score1) and only 3.08% of the respondent reported moderate depression (BDI scale score 2) whereas percentage of respondents with severe depression was NIL. Thus, the post intervention data confirm that there is definite recovery from depression among study sample.

'Recovery in anxiety' after intervention with spiritual method of AUM (OM, ॐ) meditation:

a) The pre intervention test data indicate that, out of the total population, 53.08% respondents were suffering from severe anxiety (HMA-scale score 3), 23.85% were suffering from moderate anxiety (HAM-A score scale 2), 16.15% respondents were suffering from mild anxiety (HAM-A score scale 1) and 6.92% were having NIL symptom of anxiety.
b) Evaluation of post intervention test data indicate positive recovery from anxiety with overwhelming 79.23% respondents reporting no anxiety (HAM-A score scale 0), 14.62% reporting mild anxiety (HAM-A score scale 1), 6.15% reporting moderate anxiety (HAM-A 2 score scale) and no respondent (NIL) reporting severe anxiety. Thus, evaluation indicated definite confirmation that the intervention has proved to be effective in recovery of study sample from anxiety.

8. Results Summary

Table 21

S. No.	Variable	Sample Size	Test Performed	Null Hypothesis	P-value	Decision
1.	Beck Depression Inventory (BDI)Scale	130	Wilcoxon Signed Rank Test	The median of differences between BDI (Scale) [Pre-test] and BDI (Scale) [Post-test] Equals 0	0.000	Reject the null hypothesis
2.	Hamilton Anxiety Rating Scale HAM-A (SCALE)	130	Wilcoxon Signed Rank Test	The median of differences between HAM-A- (Scale)[Pre-test] and PSQI- (Scale) [Post-test] equals0	0.000	Reject the null hypothesis
3.	Pittsburgh Sleep	130	Wilcoxon Signed	The median of differences between	0.000	Reject the null

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	Quality Index (PSQI) Scale		Rank Test	PSQI- (Scale)[Pre-test] and PSQI- (Scale) [Post-test] Equals 0		hypothesis
4.	Respiratory Rate	130	Wilcoxon Signed Rank Test	The median of differences between RR [Pre-test]and RR [Post-test] equals 0	0.000	Reject the null hypothesis
5.	Blood Pressure	130	Wilcoxon Signed Rank Test	The median of differences between BP [Pre-test] and BP [Post-test] equals 0	0.000	Reject the null hypothesis

'Recovery in sleep disorder' after intervention with spiritual method of AUM (OM, ॐ) meditation:

a) Pre intervention test data indicate that, out of total study group, 56.15% respondents were having severe sleep quality disorder (PSQI scale score 3), 20.00% reported moderate sleep quality disorder (PSQI scale score 2), 16.92% reported mild sleep disorder (PSQI scale score 1) and 6.92% reported not having sleep disorder (PSQI scale score 0).
b) The post intervention test data indicate definite improvement; overwhelming 76.92% study population reported no sleep disorder (PSQI scale-score 0), 13.85% of respondent reported mild sleep disorder (PSQI scale score 1) and only 9.23% of the respondent reported moderate sleep disorder (PSQI scale score-2) whereas percentage of respondent with severe depression was NIL. Thus, the post intervention test data confirm that there is definite recovery from sleep disorder among study population.

'Fluctuation in respiratory rate' after intervention with spiritual method of AUM (OM, ॐ) meditation:

a) Pre intervention test data indicate that, out of total study group, 33.08% respondents were having severe fluctuation in respiratory rate, 36.92% reporting moderate fluctuation, 18.46% having mild fluctuation and 11.54% reporting normal.
b) The post intervention test data indicate definite improvement; overwhelming 28.50% reported normal (no respiratory problem) 49.20% respondents reported mild fluctuation, 17.70% reported moderate fluctuation and only 4.60% reported severe fluctuation in respiratory rate. Thus, the post intervention test data confirm that there is definite recovery in respiratory rate fluctuation among study population.

'Fluctuation in Blood Pressure' after intervention with spiritual method of AUM (OM, ॐ) meditation:

a) Pre intervention test data indicate that, out of total study group, 46.92% respondents were having severe (HNTgd II) fluctuation in blood pressure, 25.38% reporting moderate (HTNgd I) fluctuation, 19.23% having mild (Pre HTN) fluctuation and 8.46% reporting normal.
b) The post intervention test data indicate definite improvement; overwhelming 45% reported normal (no blood pressure problem), 32.31% respondents reported mild fluctuation, 13.08% reported moderate fluctuation and only 10.00% reported severe fluctuation in blood pressure. Thus, the post intervention test data confirm that there is definite recovery in blood pressure fluctuation among study population.

9. Conclusion

The explicit Spiritual method of AUM (OM, ॐ) meditation has definite therapeutic potentialities to holistically heal, manage and recover serious medical conditions of depression, anxiety, sleep disorder and fluctuation in vital signs respiratory rate and blood pressure caused even by the impairing psychological trauma of COVID-19 pandemic. Spiritual method of AUM (OM, ॐ) meditation empowers and strengthens the Inner Self-curative energy for managing and recovering the medical conditions caused by serious psychological trauma. There is compatibility and acceptance of spiritual method of 'AUM (OM, ॐ)' meditation among people belonging to all walk of life.

10. Future Prospect of the Study

This study indicates definite potentiality of therapeutic effect of spiritual method of AUM (OM, ॐ) meditation and hence the research may be further conducted with larger study population of varying mind frame, belief, geographical location, age and group, for benefit of mankind. It is expected that the same empowerment with Spiritual method of AUM (OM, ॐ) to general mass may be of great help to strengthen the mental health, inner strength and quality of life.

11. Limitation

Some of the participants were reserved in their response. Due to lockdown and adherence to the COVID 19 protocols, small study population (131 person) were selected.

References

[1] Davison GC (2008). Abnormal Psychology. Toronto: Veronica Visentin. p. 154. ISBN 978-0-470-84072-6
[2] Seligman ME, Walker EF, Rosenhan DL. Abnormal psychology (4th5ed.). New York: W.W. Norton & Company
[3] World Health Organization (2009). Pharmacological Treatment of Mental Disorders in Primary Health Care (PDF). Geneva. ISBN 978-92-4-154769-7. Archived (PDF) from the original on November 20, 2016
[4] Testa A, Jannuzzi R, Sollazzo F, Petrongolo L, Bernardini L, Daini S (February 2013). & Quot; Psychiatric emergencies (part I): psychiatric disorders causing organic symptoms & European Review for Medical and Pharmacological Sciences. 17 (Suppl 1): 55–64
[5] Craske MG, Stein MB (December 2016). Anxiety. Lancet. 388 (10063):
[6] Manoj Kumar Bimal, U K Vimal. Guided Intervention through Scientific Method of Meditation for management of Stress and Depression among College

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Students: International Journal of Science and Research (IJSR) ISSN (online) DOI:10.21275/ART20163172

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