



## MEDITATION AS A TOOL FOR ENHANCING THE WELLBEING IN ADOLESCENTS & ADULTS-PILOT STUDY

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### ABSTRACT

**Introduction:** With Globalisation and modernization with advanced technology, adolescents and young adults are facing new challenges affecting their wellbeing. Mental health problems are on the rise with approximately one in five (20%) adolescents requiring mental health services. Different challenges are seen in adults also. Meditation help in reducing the stress, improves physical, emotional & mental health and greater wellbeing both in adolescents & adults. **Objectives:** Short term effect of meditation as a tool for enhancing wellbeing in adolescents and adults. **Materials and methods:** An observational study conducted by Unnathi healing foundation, Bangalore. Adolescents wellbeing was measured by predesigned students wellbeing questionnaires pre and post meditation training programme. Adults were also given different questionnaires (leadership trait, WEMWBS, 4ISWBI). Their BP, Pulse rate, HRV was taken pre and post meditation practice. Results were analysed by simple mean, percentages. Meditation on peace & Illumination was taught to both the group. **Results:** In adolescents, self confidence increased in 67%, the impulsive behaviour reduced in 44% of respondents, The perception towards their parents and family improved in 33% and 22% respectively. Self regulation was improved in 44%, physical health improved in 44%. In adults after meditation, mental wellbeing improved to significant levels of 4% (statistically significant). There was also improvement in leadership scores & spiritual wellbeing. Parasympathetic dominance was shown with decrease in pulse (67%), and reduced LF/HF ratio. **Conclusion:** Practice of Meditation on Peace and Illumination has a definitive positive impact on the general well being of adolescents and adults.

**KEYWORDS:** Well being, meditation for peace and illumination, adolescents.

### INTRODUCTION

Meditation practises have been used since ancient times to improve health and well being. Meditation is used to rest the mind, body and spirit. This in-turn has many mental, physical and spiritual benefits. In recent years, a number of articles have demonstrated the benefits of various forms of meditation.<sup>[1]</sup>

Many youths are at risk for experiencing stressors during adolescence that may lead to maladaptive coping strategies to manage negative affective experiences. Adolescence is a period of development and change for youth across multiple domains. Globalisation exposes children and young people all over the world to various new standards & options. They have new resources and also expected to perform well from family, school, media. Research shows that most stressed out generation is the adolescents & youth.<sup>[2]</sup>

Increasingly, there are calls for broader thinking about how to mitigate the maladaptive aspects of stress

experienced in the teen years to reduce the risk for long-term difficulties with epidemiological reports of prevalence rates of disorder, for instance, indicate that mental health problems are on the rise with approximately one in five (20%) children and are severe enough to warrant their need for mental health services.<sup>[2]</sup> Depression is the number one cause of mental illness, whereas suicide is the third leading cause of death among adolescents worldwide.<sup>[3]</sup> Among high school students, about one in six (17%) seriously considered attempting suicide.<sup>[4]</sup>

Meditation may provide a beneficial approach to help many adolescents reduce stress and other psychological problems like depression, suicidal tendencies, delinquency, drug addictions, etc.<sup>[1]</sup>

Like adolescents, even Adults in this modern era has different challenges and are now under constant stress from various spheres of life and need for a method to calm down themselves and is found to be of wanting in

most working professionals at work & at home. Meditation has helped in reducing the stress levels, better mental health, greater wellbeing, increased compassion and kindness to others, better physical health in the form of decrease in blood pressure, heart rate and also changes in the Heart rate variability towards parasympathetic activity, increased cognitive performance.<sup>[3]</sup>

The well being can be measured in terms of HRV, wellbeing questionnaires, blood pressure and pulse rate.<sup>[5-7]</sup>

With this background, we conducted Meditation of peace and illuminations as a tool for enhancing the wellbeing in adolescents & adults.

### OBJECTIVES OF THE STUDY

- 1) Short term effect of meditation as a tool for enhancing wellbeing in adolescents.
- 2) Short term effect of meditation as a tool for enhancing wellbeing in adults.

**Scope of the study:** With modernization, there is a different sets of challenges in the adolescents and adults and their ability to lead a normal healthy life has affected. They require different kinds of tools to combat stress and its negative effect. Different meditation practices has proved promising and definitive results in improving the wellbeing in both adults and adolescents. In this context, we conducted Meditation of peace and illumination<sup>[10]</sup> as a tool for enhancing the wellbeing in adolescents & adults.

### Methodology and materials (Plan of Analysis)

This study conducted at Unnathi healing Foundation, Sanjaynagar, Bangalore a center for Holistic development of the adolescents and adults.

Participants who gave the consent for the programme were included in the study. For adolescents their parental & individual consents were taken.

Randomly selected adolescents were given one week training programme on self awareness, problems of adolescents, physiological changes during adolescents, taught the technique of Meditation for peace and illumination and was practiced for one week. Demographic parameters of age, gender, class, were taken. Pre designed Students wellbeing Questionnaires were executed at the beginning and at the end of the programme. Open ended questionnaires were also asked at the end of the programme. Questionnaires used were developed and standardized by Unnathi healing foundation.

Randomly selected adults were taught Mediation on peace and illumination meditation, structured Yoga training consisting of - breathing exercise, simple physical exercises, character building techniques for a duration of 2 days. Demographic parameters of age,

gender, education were taken. Questionnaires were executed at the beginning and at the end of the programme. Questionnaires used were Warwick Edinburgh Mental wellbeing<sup>[5,22]</sup>, Leadership trait questionnaires of self assessment<sup>[11]</sup>, 4 item spiritual wellbeing index questionnaires.<sup>[12]</sup> We also measured their blood pressure, pulse rate by Omni electronic BP instrument and ECG by Sanketh ECG instrument before & after the programme.

Technique of Meditation for peace and illumination<sup>[10]</sup>: It is based on spreading the Loving kindness, compassion, happiness to the entire world. It is based on the principle that chakras are entry points/gateway to certain levels of consciousness. In this technique, the meditator focuses on 2 centers/chakras i.e The heart chakra- center for personal love and the Crown center – for Universal love. Steps involved:

- 1) Simple physical exercises and breathing exercises to prepare the physical body and energy body for meditation.
- 2) Short prayer to the Supreme God, Beings of love, light and power and the Guru for divine blessings.
- 3) Activating the heart chakra by blessing the entire earth with loving kindness by using the prayer of St Francis of Assisi.
- 4) Activating the Crown chakra by blessing the entire earth with loving kindness.
- 5) Meditating & blessing the entire earth with Loving kindness by simultaneously concentrating on the both centers.
- 6) 6) Concentrating on the mantra OM, and light above crown chakra and also being Aware on the Peace, stillness and bliss and the interval between the Two OM s.
- 7) Excess energy is released by blessing the entire earth. Thanks giving. Further energy is released by doing physical exercise and gentle massaging the body.

Results were analysed by simple statistics by calculating mean and percentage.

### ANALYSIS OF RESULTS AND DISCUSSION

#### Results in Adolescents

Table 1 shows demodraphic characters of the adolescents. Mean age group was 14.8 yrs, 89% were females, 11% were males.

Self confidence was measured as 3 ratings: rate 1-very good, 2-satisfactory, 3 as lack of confidence/poor. TABLE 2 & Graph 1 shows that 67% of the respondents had improvement in self confidence levels (45%- from satisfactory levels to very good, 22% from poor to satisfactory levels) and 33% had maintained their satisfactory and very good levels following meditation practice.

Graph 2 shows -Attitude towards praising someone in my presence was measured as rates. - Rate 1- I feel inferior and angry, rate 2- I am inspired to achieve like them, rate 3- Combination of both. 44% of respondents

were inspired to achieve like the other person. 44% of respondents did not change their response.

Graph 3-shows the impulsive behaviour of adolescents was measured by asking whenever there is a task, what is my reaction. The ratings were rate 1- I rush to doing it, rate 2- I do what the group does, rate 3- I step back, assess, think and then act. 44 % of the respondents changed their impulsive behaviour from being quite and think first and then to act. 11.1% did not change their impulsive behaviour.

Graph 4 shows the perception towards home and family environment. The ratings were rate1 - As frequent fights, rate 2 as a happy environment, 3 as combination of both. 22% of those living in a family with both fights and happy environment moved towards a happy home environment after the session. Others said their home environment was happy before and after the session.

Graph 5: Perception towards parents has been rated as rate 1: Scolds & beatings, 2-affectionate, 3-combination of both. Perception towards parents changed towards affectionate in 33% of the respondents. 67% of them had both feeling towards affection & scoldings.

Graph 6: My health condition was measured by ratings. Rate 1 -very good, 2-satisfactory, 3-I fall ill often. 44% of the respondents showed improvement in their physical health after practice of meditation.

The results of the Open end questionnaires were as follows:

Most of their perception towards God has changed and the frequency of prayers increased after the meditation. They expressed that, meditation helped them to calm down their mind, clarity of thinking was better, understanding their parents was better. Ability to see the the situations in life from different view point was learnt. Felt very happy after meditation. They expressed that they learnt to use mediation as a tool to relieve the stress, face the exams better, helping the others by blessings. Perception of oneself has also changed. Self confidence and better organizing ability was increased. Communication with oneself and others (parents, friends) were improved. Importance of service was learnt and expressed their interest to help others.

## RESULTS IN ADULTS

TABLE 3 shows the demographic characteristics of adults. Mean age group was 42, 83% were females, 17% were males, educational status were 25%-postgraduation, 58%-graduates,8% each-diploma & secondary school respectively.

TABLE 4 Shows that there is no change in blood pressure. Pulse rate is decreased in 67% of respondents, increased in 25%, no change in 8% of respondents.

Table 5 shows, HRV frequency domain results indicates that Lf:Hf ratio is decreased after meditation with overall mean score of 0.043(n-12).66 % of the participants showed decrease in LF/HF ratio.

Table 6, Graph 7,8,9 shows Change in the wellbeing score of the group was 3 and percentage was 4%. (Which is significant. 3-8% change is significant and 8 and more is very significant).

Table 7 shows that Mean leadership score was 57.3 and 62, and percentage was 82% and 89% pre and post meditation respectively. Overall increase in the leadership score was observed in this study, may be because of self introspection and self awareness and change in the perception of oneself because of the positive effect of Meditation practice.

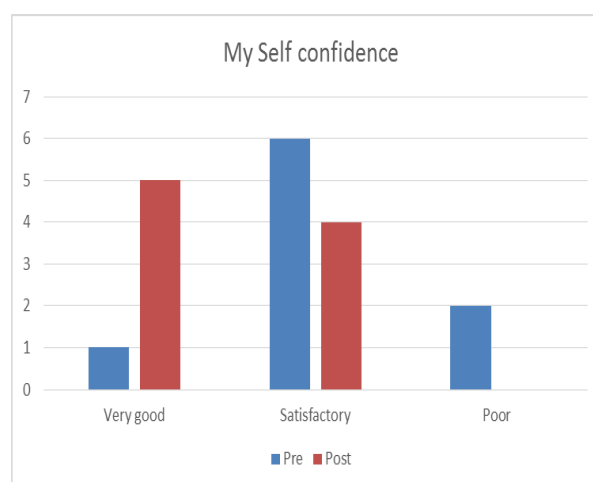
Graph 10 shows the spiritual wellbeing in adults. 33 % of respondents had developed Very strong connection with God after meditation, 66% had already had that very strong connection. There was improvement in their relation with other people in 25% of respondents, with environment 33% of respondents, with oneself in 33% of respondents after meditation.

**Table 1: Demographics of adolescents.(n-9).**

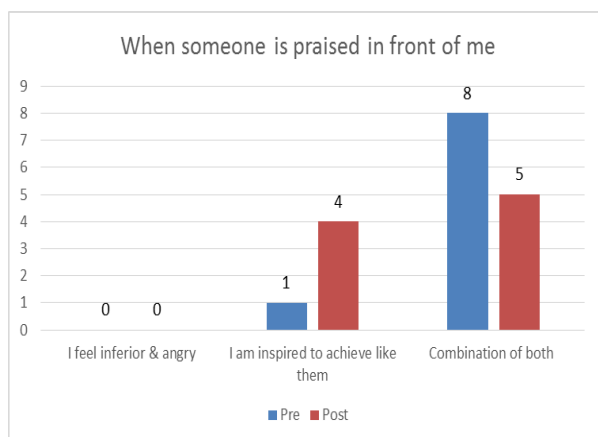
Sl no	Category	parameter	No of respondents
1	Gender	Females	8(89%)
		Males	1(11%)
2	Age	14	1(11%)
		15	7(78%)
		16	1(11%)
3	Class	10th std	9(100%)
4	Religion	Hindu	9(100%)

**Table 2: Self confidence levels.**

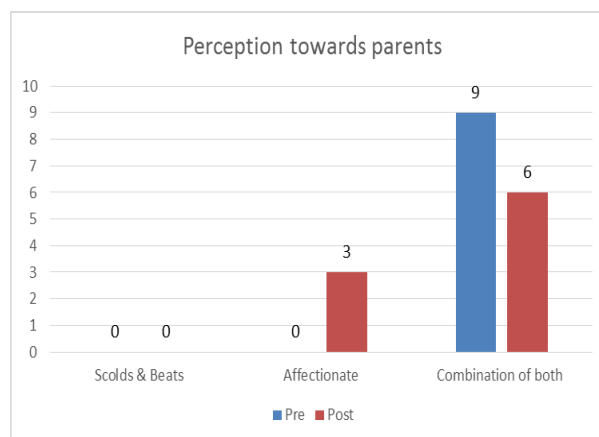
Sl no	Ratings	Pre	Post
1	Very good	1(11%)	5(55.5%)
2	Satisfactory	6(66.7%)	4(44.4%)
3	Poor	2(22.2%)	0



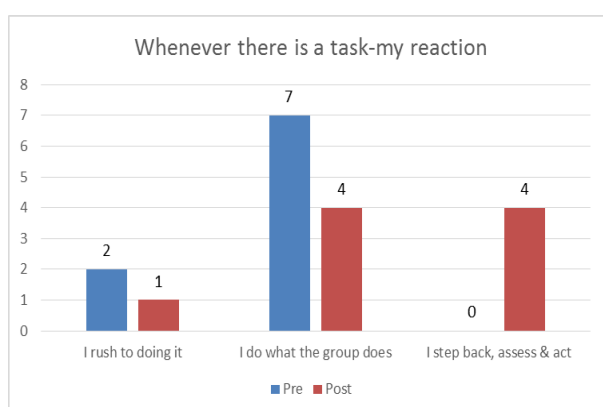
**Graph 1: Self confidence.**



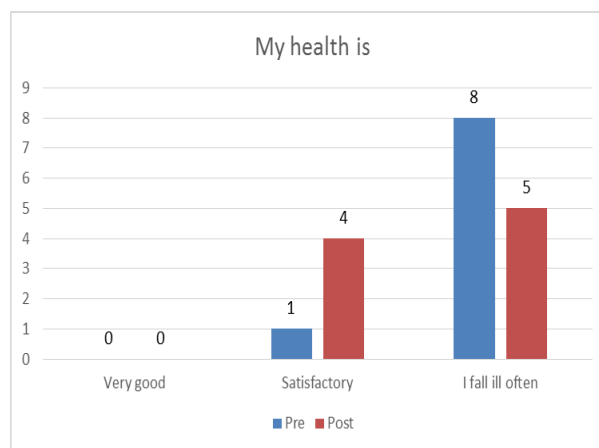
**Graph 2: Attitude towards praising someone in my presence.**



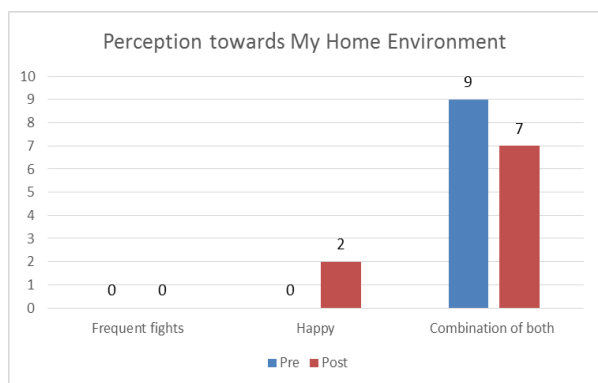
**Graph 5: Perception towards parents.**



**Graph 3: the impulsive behaviour of adolescents was measured by asking whenever there is a task, what is my reaction.**



**Graph 6: My health.**



**Graph 4: Perception towards My Home environment.**

**Table 3: Demographics of adults.**

Sl no	Parameters		No of respondents
1	Total no		12
2	Age	Mean age	42
		Range	28-58
3	Gender	Females	10(83%)
		Males	2(17%)
4	Educational status	Postgraduation	3(25%)
		Graduation	7(58.3%)
		Diploma	1(8.3%)
		Secondary school	1(8.3%)

**Table 4: Blood pressure & pulse rate.**

Parameters	Pre meditation	Post meditation
Mean Average blood pressure(mm of Hg)	117/75	118/79
Mean Systolic blood pressure	117	118
Mean Diastolic blood pressure	75	79
Mean Pulse rate/min	85	78

**Table no 5: HRV –Frequency domain: LF:HF ratio.(n-12).**

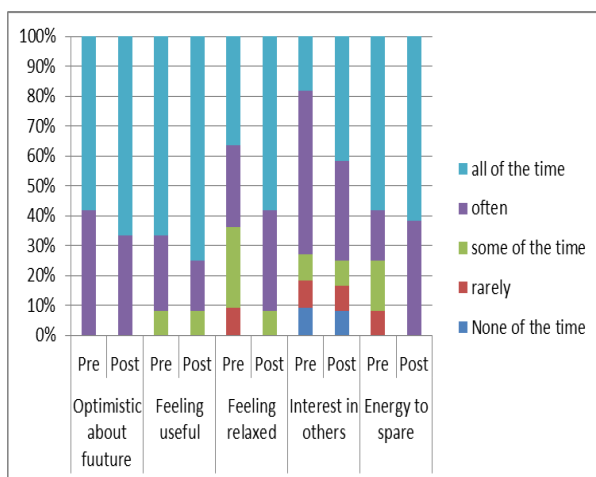
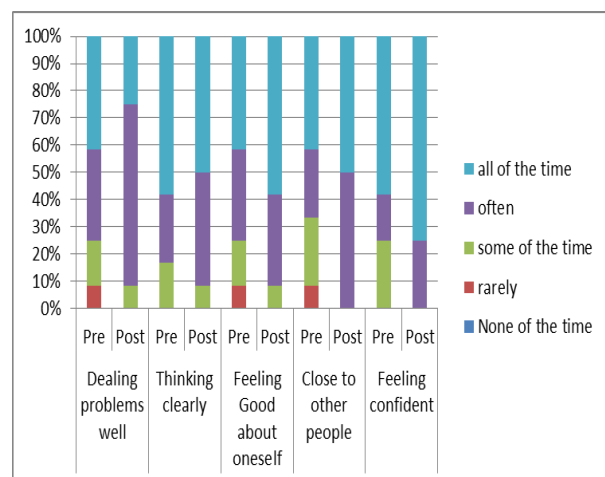
Sl no	Pre lf	Post LF	PRE HF	POST HF	PRELF/HF ratio	Post LF/HF ratio	Mean difference in LF/HF ratio
1	0.07	0.14	0.3	0.337	0.279	0.181	0.098
2	0.133	0.08	0.327	0.393	0.541	0.155	0.386
3	0.133	0.443	0.303	0.343	0.487	0.476	0.011
4	0.117	0.063	0.233	0.327	0.622	0.644	-0.022
5	0.147	0.06	0.337	0.187	0.335	0.651	-0.316
6	0.087	0.047	0.257	0.2	0.548	0.727	-0.179
7	0.097	0.143	0.227	0.39	0.483	0.147	0.336
8	0.127	0.127	0.19	0.177	1.543	0.452	1.091
9	0.047	0.07	0.373	0.373	0.745	0.376	0.369
10	0.1	0.047	0.153	0.207	0.481	1.994	-1.513
11	0.67	0.063	0.277	0.21	0.641	0.43	0.211
12	0.037	0.07	0.06	0.253	0.55	0.505	0.045

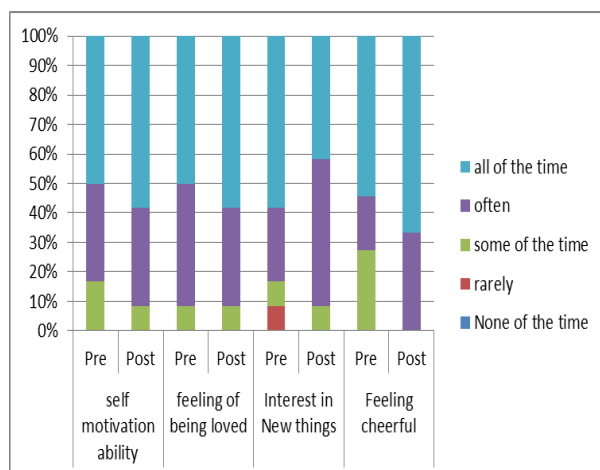
**Table 6: Mental wellbeing score.**

	Mental wellbeing score	Percentage
Pre meditation	60	85%
Post meditation	63	89%

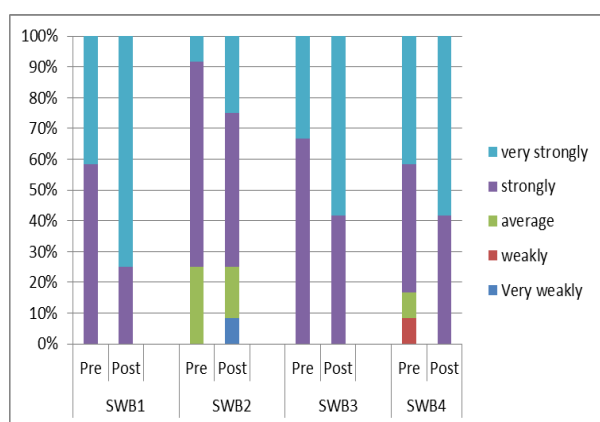
**Table 7: Leadership trait questionnaire-self assesment.**

LTQ SCORE	LTQ %	Grade	Pre	Post
1	<25%	Low	0	0
2	26-50%	Medium/average	0	0
3	>51%	High	12(100%)	12(100%)
Mean average score			57.3	62
Mean %			82%	89%

**Graph 7: Mental wellbeing in adults.****Graph 8: Mental wellbeing in adults:**



Graph 9: Mental wellbeing in adults.



Graph 10: Spiritual wellbeing in adults.

## DISCUSSION

**Objective 1:** Short term effect of meditation as a tool in enhancing the wellbeing in adolescents.

Following the meditation practise, there were significant changes in the adolescents.

The self confidence of the children was increased in 67% of the respondents, which were comparable to the studies of Lunthitha Et al<sup>[3]</sup> and also Wisner Et al.<sup>[14]</sup>

The impulsive behaviour of the adolescents to follow the crowd blindly reduced and made them to think and act in 44% of the respondents was comparable with studies of L flook Et al<sup>[15]</sup> and G. M. Elmore et al.<sup>[16]</sup> Meditation proved effective with children's executive function skills. Poor EF, which can manifest as issues with concentration or impulsivity, was associated with behavioural challenges, delinquency, ADHD, and bullying.

The perception of the adolescents towards their parents and family environment improved in 33% and 22% of the respondents respectively. The attitude towards not being praised by others changed from feelings of inferiority to that of self improvement in 44% of the respondents. Our results were comparable to study conducted by Wisner Et al.<sup>[14]</sup> The study of Wisner Et

al<sup>[14]</sup> states that, meditation helped the youth to manage behaviour, emotions, and thinking skills that were beneficial in the school and the home environment and also able to manage stress.

44% of the respondents show improvement in their physical health. Yang KP et al<sup>[20]</sup> study supports that Physical and mental health improves with meditation in adolescents. The overall wellbeing of adolescents increased in our study due to meditation on peace and illumination the results of the Jois et al<sup>[9]</sup> supports the same.

As per studies of Yi Yuang<sup>1</sup> and Duthley et al<sup>[3]</sup> Meditation helps to improve self-regulation and attention, which have a beneficial effect on learning of school subjects. Mediation increases spiritual aspect of health also by improving faith towards God, as expressed by the adolescents in our study. A study conducted by Marcie C<sup>21</sup> showed that strong relationship with God reduced depression, anxiety and other psychological problems.

**Objective 2:** Short term effect of meditation as a tool in enhancing the wellbeing in adults

Mental well being- There is a significant positive change in the mental wellbeing in the adults following meditation practice. The results were comparable to the studies of Keng et al<sup>[18]</sup> and Goyal et al<sup>[19]</sup>

Keng et al<sup>[18]</sup> has concluded that meditation brings about various positive psychological effects, including increased subjective well-being, reduced psychological symptoms and emotional reactivity, and improved behavioural regulation.

Goyal Et al<sup>[19]</sup>, who has done systematic review and meta-analysis of meditation programs, has concluded that meditation will decrease psychological stress and improves well being and reduces the multiple negative psychological dimensions of stress.

There was also overall increase in the self assessment of leadership qualities among adults in our study, and Laura Reave et al<sup>[17]</sup> showed that the spiritual values and meditation practises increases the leadership qualities and effectiveness.

The spiritual wellbeing index was also showed shift towards higher wellbeing due to meditation practice. Meditation increases the spiritual wellbeing and health, which inturn enhances the physical, emotional and mental health.<sup>[13]</sup>

In our study, there was no significant changes in Blood pressure though there was a decrease in blood pressure trend in the Sharma et al<sup>[7]</sup> study. In our study it may be due to the short term effect of 2 days.



**Pulse rate:** decreased in 66% individuals. With reference to Sharma *et al*<sup>[7]</sup>, suggestive parasympathetic shift of the individuals' ANS thus causing decrease in pulse rate.

**HRV:** In our study, LF:HF ratio decreased in 66% of respondents, Overall mean score of the ratio is 0.043 as comparable to Narendra Kumar *Et al*<sup>[6]</sup> the HRV showed reduced HF:LF ratio with decreased LF and increased HF which shows the parasympathetic shift of the autonomic nervous system i.e vagal dominance that occurs after meditation.

Mechanism of action of meditation - recalling a happy event, experiencing it, feeling and visualising the happiness and sharing it with others. During this process, each one starts replacing their negatives with positive, their perception of oneself will change for the better. Once the calmness is achieved, meditating on peace and experiencing light and illumination within gradually happens.

## CONCLUSION

We would conclude by saying that the practice of Meditation on Peace and Illumination has a definitive positive impact on the general well being of adolescents and adults.

**Limitations of the study:** Study results are promising, but needs large sample size & long term effect.

## Recommendations

- 1) Meditation on peace and Illumination is a short guided visualisation technique can be used in adolescents to enhance their wellbeing as a part of school curriculum. Advantage is of short time and quick results.
- 2) Meditation can also be used in adults to enhance the wellbeing in professionals & non professionals. It gives better handling ability of oneself with positive emotions and clear thinking, recharge the mind & body in short time so that their work performance improves.

## Further scope of research

We have studied only short term effect of meditation as a tool. Further research is required in the long term effect of meditation in enhancing leadership qualities, wellbeing, physiological changes and mechanisms of meditations on human system.

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**Conflict of Interest:** There are no conflicts of interest regarding the contents of this article.

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## REFERENCES

1. Tang YY, Yinghua Ma, Wang J, Fan Y, Feng S *et al*. Short-term meditation training improves attention and self-regulation. *PNAS*, 2007; 104(43): 17152–17156.
2. Kimberly A, Reich S, Lawlor MS. The Effects of a Mindfulness-Based Education Program on Pre- and Early Adolescents' Well-Being and Social and Emotional Competence. Article in *Mindfulness*, 2010. DOI: 10.1007/s12671-010-0011-8.
3. Duthely LM, Nunn SG, Avella JT. A Novel Heart-Centered, Gratitude-Meditation Intervention to Increase Well-Being among Adolescents. *Hindawi Education Research International*, 2017. Article ID 4891892: 1-12. <https://doi.org/10.1155/2017/4891892>.
4. World Health Organization (WHO), "WHO calls for stronger focus on adolescent health," 2014, <http://www.who.int/mediacentre/news/releases/2014/focus-adolescent-health/en/>.
5. Maheswaran H, Weich S, Powell J, Brown SS. Evaluating the responsiveness of the Warwick Edinburgh Mental Well-Being Scale (WEMWBS): Group and individual level analysis. *Health and Quality of Life Outcomes*, 2012; 10: 156.
6. Aryaa NK, Singha K, Malika A, Mehrotra R. Effect of Heartfulness cleaning and meditation on heart rate variability. *Indian Heart J.*, 2018; 70(3): S50-S55.
7. Sharma M, Kacker S, Saboo N. Effect of advance meditation program on electrocardiogram, blood pressure, and stress level in young healthy adults. *Heart India*, 2017; 5(4): 146-151.
8. Sharma J, Singh AP. A Study on Mindfulness, Regulation of emotion and Mental Well-being among Young Adults. *IRJMST*, 2016; 7(9): 109-117. <http://www.irjmst.com>
9. Jois, Srikanth N.; Moulya, R.; D'Souza, Lancy. Mitigation of Perceived Stress and Enhancement of Quality of Life among Female Adolescents Using Meditation on Twin hearts. *Indian Journal of Public Health Research & Development*, 2017; 8(3): 229-234.
10. Master Choa Kok Sui. The ancient science and art of pranic healing. 3<sup>rd</sup> ed. Bangalore: WPHF- India; 2004. Chapter 8: Meditation on Twin Hearts, 270-282.
11. Northhouse PG. Leadership. 6<sup>th</sup> ed. New Delhi: SAGE Publications India Pvt Ltd; Trait Approach, 2013; 237: 39.
12. Fisher J, David NG. Presenting a 4-Item Spiritual Well-Being Index (4-ISWBI) John Fisher;

- Religions, 2017; 8(179): 1-13. [www.mdpi.com/journal/religions](http://www.mdpi.com/journal/religions).
13. Udaykumar P, Ilango P. Spirituality, stress and wellbeing among the elderly practising spirituality. *Samaja Karyada Hejjegalu*, 2012; 2(10): 37-42. ISSN: 2230- 8830
  14. Wisner BL, Jones B, and Gwin D. "School-based meditation practices for adolescents: A resource for strengthening self regulation, emotional coping, and self-esteem,". *Children and Schools*, 2010; 32(3): 150–159.
  15. Flook L, Smalley SL, Kitil MJ et al. "Effects of mindful awareness practices on executive functions in elementary school children,". *Journal of Applied School Psychology*, 2010; 26(1): 70–95.
  16. Elmore GM, Huebner ES. "Adolescents' satisfaction with school experiences: relationships with demographics, attachment relationships, and school engagement behavior,". *Psychology in the Schools*, 2010; 47(6): 525–537.
  17. Laura Reave. Spiritual values and practices related to leadership effectiveness. *The Leadership Quarterly*, 2005; 16(5): 655-687.
  18. Kenga SL, Smoskib MJ, Robinsa CJ. Effects of Mindfulness on Psychological Health: A Review of Empirical Studies. *Clin Psychol Rev.*, 2011; 31(6): 1041-1056.
  19. Goyal M, Singh S, Sibinga EMS, Gould NF, Seymour R et al. Meditation Programs for Psychological Stress and Well-being, A Systematic Review and Meta-analysis. *JAMA Intern Med.*, 2014; 174(3): 357-368.
  20. Yang KP, Su WM, Huang CK. The effect of meditation on physical and mental health in Junior college students: A quasi –experimental study. *Journal of Nursing*, 2009; 17(4): 261-269.
  21. Marcie C, Morey G, Taylor LK. Adolescents, relationship with God and internalizing adjustment over time: The moderating role of maternal religious coping. *J Fam Psychol*, 2014; 28(6): 749-758.
  22. Putz R, Hara KO, Taggert F, Brown SS. Using WEMWBS to measure the impact of your work on mental wellbeing: A practice-based user guide, September, 2012; 1-19. Website link: <http://www.healthscotland.com/documents/1467.aspx>.