

Effect Of Cyclic Meditation On Healthy And Non -Healthy Individuals: A Systematic Review

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ABSTRACT

Introduction: Meditation is one of the well-known practices which increase attention and deep internal relaxation. Meditation is the seventh of eight steps prescribed to reach an ultimate stage of spiritual emancipation. Cyclic meditation (CM) is the meditation technique named as moving meditation taken from Mandukya Upanishad, which is a combination of the yoga postures and relaxation techniques. It is based on the principles of stimulation and relaxation. There are three relaxation techniques included in this meditation practice, which are instant relaxation technique, quick relaxation technique (QRT), and deep relaxation technique (DRT).

Aim: The current review aims to find out the effect of Cyclic Meditation on Healthy and Non-Healthy individuals.

Material & Method: In accordance with the PRISMA guidelines, the electronic databases PubMed, Google Scholar, Cochrane, Scopus, Springer, Google and wave of science were searched. All studies identified for inclusion and published in English. Articles were searched by using the keyword “Effect of Cyclic meditation on mental health, Effect of Cyclic meditation on physical health, Cyclic meditation, Meditation, Cyclic meditation for Stress, Cyclic Meditation for Anxiety etc.

Results: All included studies show positive effect of Cyclic Meditation on Healthy and Non-Healthy Individuals. Cyclic meditation has shown beneficial effects on sleep quality, psychological disorders, quality of life, blood pressure, pulse rate, anxiety and asthma. It is effective practice to keep cardio-respiratory and psychological status of health optimal even in healthy and non-healthy individuals. Cyclic meditation practice can lead to the development of higher levels of mindfulness state while improving overall psychological wellbeing in healthy individuals.

Conclusions: The study of literature shows that cyclic meditation (CM) has great health benefits on the physiological as well as psychological wellbeing of both healthy as well as unhealthy individuals. More research is required to record data about the holistic benefits of CM for diverse problems and for diverse groups to establish the technique as a proper treatment tool for various health issues.

Keywords: Cyclic meditation, physical health, Anxiety, Meditation.

Introduction

Yoga an ancient discipline of India, which considered a mind–body practice in which both Physical and mental disciplines united to achieve peaceful state of mind and body for Managing stress and anxiety (Bidwell et al., 2012). It is Combination of practices which includes Pranayama (breath retention), Asana (physical Postures) and meditation which reduces stress and increases calmness and helps in changing states of mind (Ross et al., 2012). Yoga is traditional Indian science and a lifestyle which induces relaxation and brings about a stable mental state. Yogic methods involve physical postures(asanas), manual control over breathing(pranayama’s), meditation and philosophical laws that help to attain a stable mental state (Manjunath & Telles, 2005) Yoga Is an integrated treatment for people with various physical and mental ailments. Yoga brings about minds-body-spirit wellbeing. An experiment of yoga-based interventions conducted on the healthy subject has shown declination in depression and anxiety as an effect of yoga (Chen et al., 2010)

Cyclic Meditation

Meditation is one of the well-known practices which increase attention and deep internal relaxation. Meditation is the seventh of eight steps prescribed to reach an ultimate stage of spiritual emancipation (Subramanya & Telles, 2009a) . Cyclic meditation (CM) is the meditation technique named as moving meditation taken from *Mandukya Upanishad*, which is a combination of the yoga postures and relaxation techniques. It is based on the principles of

stimulation and relaxation. There are three relaxation techniques included in this meditation practice, which are instant relaxation technique, quick relaxation technique (QRT), and deep relaxation technique (DRT) (Subrahmanyam, 1980). Yoga is an ancient spiritual practice which originated from India. In recent decades, there has been increasing interest in yoga, mainly because of its applications in health and wellness. Among various techniques of yoga, the practice of meditation has been found to cause several psychophysiological effects. Most meditation techniques are practiced in a stable and comfortable posture but there are also meditation techniques that involve movement. Cyclic meditation (CM)—a technique derived from one of the Upanishads—is a moving meditation technique practiced by combining physical postures (asanas) with relaxation procedures. The practice of CM starts with a prayer followed by (Subramanya & Telles, 2009c). isometric muscle contraction, supine rest, standing at ease, centering by balancing the body weight on the different parts of the feet, bending to the right and then left sides (Ardhakatikasana), forward bending (Padahasthasana), backward bending (Ardhachakrasana), and supine rest. During the practice, emphasis is given on relaxation and awareness. Scientific studies on the effects of practicing CM have reported myriad physiological and mental health benefits. (Subramanya & Telles, 2009b) The verse on which CM is based, states: 'In a state of mental inactivity awaken the mind; when agitated, calm it; between these two states realize the possible abilities of the mind. If the mind has reached states of perfect equilibrium do not disturb it again'. The underlying idea is that, for most persons, the mental state is routinely somewhere between the extremes of being 'inactive' or of being 'agitated' and hence to reach a balanced/relaxed state the most suitable technique would be one which combines 'awakening' and 'calming' practices.

In CM, the period of practicing yoga postures constitutes the 'awakening' practices, while periods of supine rest comprise 'calming practices'. An essential part of the practice of CM is being aware of sensations arising in the body. This supports the idea that a combination of stimulating and calming techniques practiced with a background of relaxation and awareness (during CM) may reduce psycho physiological arousal more than resting in a supine posture for the same duration. The practice of CM, includes yoga postures (asanas) which involve muscle stretching and this has diverse benefits.

Review of Scientific Literature

Effect of cyclic meditation on cardio - respiratory and psychological variables in both healthy and unhealthy Japanese individuals, 199, Cyclic Meditation (CM) practice shown statistically highly significant effect on Breath rate, Heart rate, Systolic blood pressure and Diastolic blood pressure Whereas, psychological variables proved the sustained significant effects. (Padhye et al., 2018) Effect of Cyclic Meditation on Sleep Quality, Psychological Well-being and Quality of Life among Working Professionals during the Lockdown Period, 60, Yoga and Cyclic Meditation has shown various positive effects on our daily day to day lifestyle. There are numerous benefits and advantages of practicing yoga, pranayama and meditation. (Manjeesh TG1, 2021). Effect of yoga and cyclic meditation on quality of life and quality of sleep among secondary caregivers of special needs individuals – a comparative study, 25, The present study reveals that mind body therapies such as yoga positively facilitate mental health and well-being among the secondary caregivers. Further, this study provides evidence that yoga is feasible, acceptable and enjoyable therapy for the participants. (M Srividya Sreenivas & Vijayakumar P S, 2019) . Immediate effect of cyclic meditation on pefr, blood pressure, pulse rate and anxiety in patients with asthma. The results of this study showed positive impact of cyclic meditation in all the variables except pulse rate. Cyclic meditation seems to be a safe, feasible and effective treatment modality that clinicians could consider recommending to patients with asthma. (Prajapati & Mohanty, 2019). Immediate effects of cyclic meditation on state mindfulness in normal healthy volunteers: A controlled study, 100, Collectively, these findings suggest that a single session of cyclic meditation practice can lead to the development of higher levels of state mindfulness while improving overall psychological wellbeing in healthy individuals. (Vinchurkar et al., 2014)

Heart rate variability (HRV) was studied in cyclic meditation (CM) and supine rest (SR). CM included yoga postures followed by guided relaxation. Forty-two male volunteers were assessed in CM and SR sessions of 35 minutes, where CM or SR practice was preceded and followed by 5 minutes of SR. During the yoga postures of CM and after CM, low frequency power and the low frequency to high frequency power ratio decreased, whereas high frequency power increased. Heart rate increased during the yoga postures and decreased in guided relaxation and after CM. There was no change in SR. Hence, it appeared that predominantly sympathetic activation occurred in the yoga posture phases of CM while parasympathetic dominance increased after CM. (Sarag & Telles, 2006).

Topic- Effect of two yoga-based relaxation techniques on memory scores and state anxiety, sample size- 57, Study type -Cross-sectional study, Result - the CM improved the memory just after the practice and reduced anxiety. There was improvement in the score but more Significant change was found after CM Heart rate variability during sleep following the practice of cyclic meditation and supine. (Patra & Telles, 2009b) . Sample size – 30, study type- Controlled Trial, IN this study, on thirty male volunteers, CM was practiced twice in the day and after this the HRV was recorded, while awake and, during 6 h of sleep. This was similarly recorded for the night's sleep following the day time practice of SR. Participants were randomly assigned to the two sessions and all of them practiced both CM and SR on different days.

During the night following day time CM practice there were changes; a decrease in heart rate. (Patra & Telles, 2009b). Practicing cyclic meditation twice a day appeared to improve the objective and subjective quality of sleep on the night. An increase in the feeling that the sleep was refreshing, an increase in feeling “good” in the morning, an overall increase in sleep duration (Patra & Telles, 2009a). This study has the strength with large sample size and success to show the preliminary step in determining the effect of CM on QOL and perceive stress in female adolescence. In future we can examine the effect of CM on QOL and perceive stress in other generation (Kumari & Ghosh, 2015)

Summary of Literature Review:

S.no.	Title	Author	Year	Sample	Research Method	Conclusion
1	Effect of cyclic meditation on cardio - respiratory and psychological variables in both healthy and unhealthy Japanese individuals	(Padhye et al., 2018)	<u>2018</u>	199	Randomized Controlled Trial	CM practice shown statistically highly significant effect on Breath rate, Heart rate, SBP and DBP. Whereas, psychological variables proved the sustained significant effects.
2	Effect of Cyclic Meditation on Sleep Quality, Psychological Well-being and Quality of Life among Working Professionals during the Lockdown Period.	(Manjeesh TG1, 2021)	<u>2020</u>	60	Randomized Controlled Trial	Yoga and Cyclic Meditation has shown various positive effects on our daily day to day lifestyle. There are numerous benefits and advantages of practicing yoga, pranayama and meditation.
3	Effect of yoga and cyclic meditation on quality of life and quality of sleep among secondary caregivers of special needs individuals – a comparative study	(M Srividya Sreenivas & Vijayakumar P S, 2019)	<u>2019</u>	25	A Comparative Study	The present study reveals that mind body therapies such as yoga positively facilitate mental health and well- being among the secondary caregivers. Further, this study provides evidence that yoga is feasible, acceptable and enjoyable therapy for the participants.
4	Immediate effect of cyclic meditation on pefr, blood pressure, pulse rate and anxiety in patients with asthma	(Prajapati & Mohanty, 2019)	<u>2017</u>	53	Randomized Controlled Trial	The results of this study showed positive impact of cyclic meditation in all the variables except pulse rate. Cyclic meditation seems to be a safe, feasible and effective treatment modality that clinicians could consider recommending to patients with asthma.
5	Immediate effects of cyclic meditation on state mindfulness in normal healthy volunteers: A controlled study	(Vinchurkar et al., 2014)	<u>2014</u>	100	A Controlled Study	Collectively, these findings suggest that a single session of cyclic meditation practice can lead to the development of higher levels of state mindfulness while improving overall psychological wellbeing in healthy individuals.
6	Effects of two yoga-based relaxation techniques on heart rate variability (HRV)	(Sarang & Telles, 2006)	<u>2006</u>	42	Self as Control Study	Heart rate variability was studied in cyclic meditation and supine rest. Parasympathetic dominance increased after CM.
7	Effect of two yoga-based relaxation techniques on memory scores and state anxiety	(Subramanya & Telles, 2009b)	<u>2009</u>	57	Cross-sectional study	The CM improved the memory just after the practice and reduced anxiety. There was improvement In the score but more Significant change was found after CM.
8	Heart rate variability during sleep following the practice of cyclic meditation and supine rest	(Patra & Telles, 2009b)	<u>2010</u>	30	Randomized Control Trial	In this study, on thirty male volunteers, CM was practiced twice in the day and after this the HRV was recorded, while awake and, during 6 h of sleep. This was similarly recorded for the night’s sleep following the day time practice of SR. Participants randomly assigned to the two sessions and all of them practiced both CM and SR on different days. During the night following day time CM practice there were changes; a decrease in heart rate.
9	Positive impact of cyclic meditation on subsequent sleep	(Patra & Telles, 2009a)	<u>2009</u>	30	Clinical trial	Practicing cyclic meditation twice a day appeared to improve the objective and subjective quality of sleep on the night. An increase in the feeling that the sleep was refreshing, an increase in feeling “good” in the morning, an overall increase in sleep

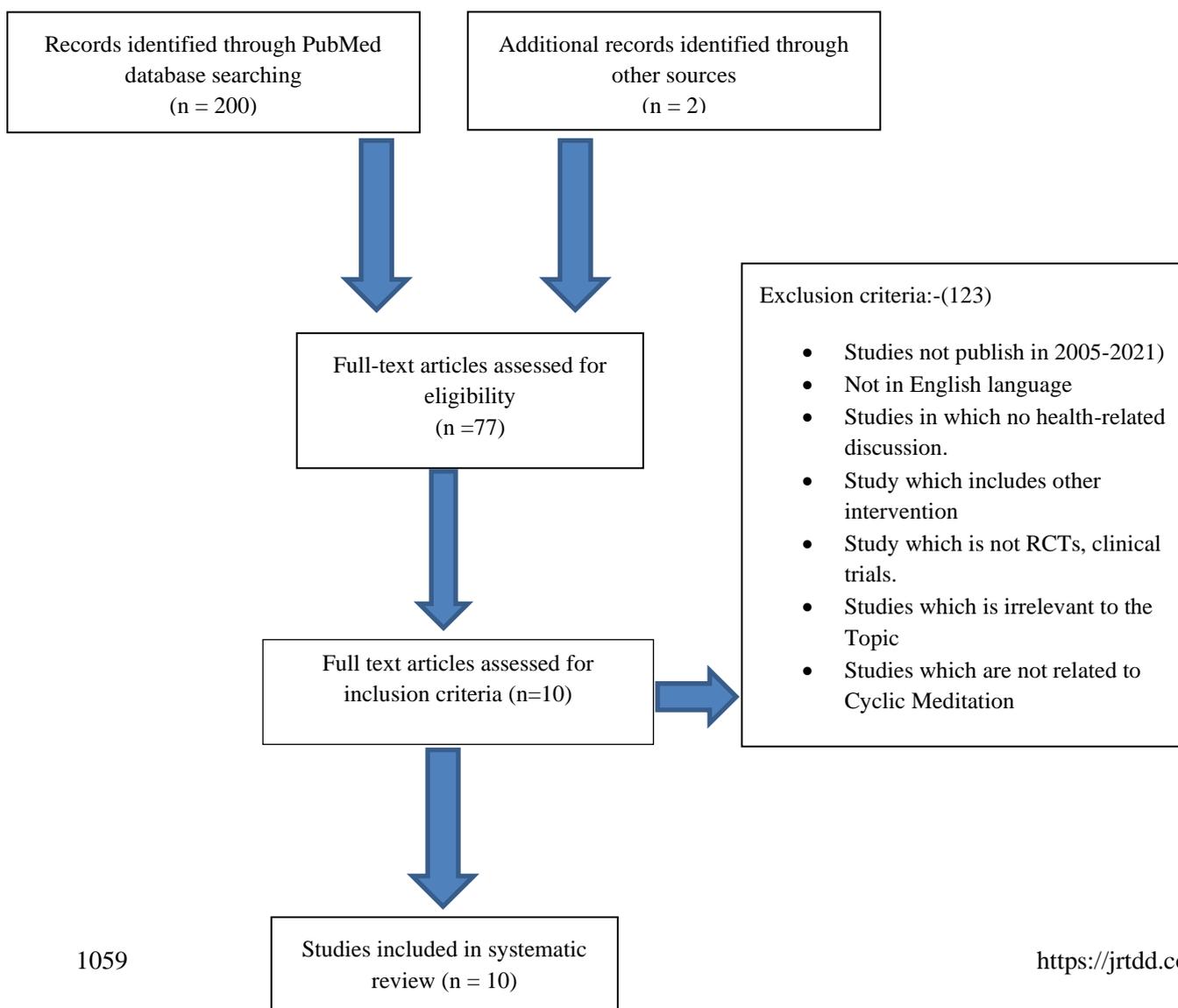
10	Effect of cyclic meditation on quality of life and perceived stress in female adolescence	(Kumari & Ghosh, 2015)	2015	58	Randomized Control Trial	duration This study has the strength with large sample size and success to show the preliminary step in determining the effect of CM on QOL and perceive stress in female adolescence. In future we can examine the effect of CM on QOL and perceive stress in other generation.
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Materials And Method:

In accordance with the PRISMA guidelines, the electronic databases PubMed, Google Scholar, Cochrane, Scopus and Web of Science were searched. All studies identified as per set inclusion criteria and published in English. Articles were searched by using the keywords: effect of cyclic meditation on mental health, effect of cyclic meditation on physical health, cyclic meditation, meditation, cyclic meditation for stress, cyclic meditation for anxiety etc. The current study is a systematic review where PRISMA guidelines are taken into consideration while doing systematic review. All the research paper which fulfills the inclusion criteria included in this study available on different data repository sites.

There were some inclusion criteria: Studies included Randomized control trials, clinical trials, peer review articles, pilot studies with human subjects; published in English Full-length paper; use of Cyclic meditation; paper published in year. 2005 To 2021; use of Cyclic meditation. There were some exclusion criteria: Studies not publish in 2005-2021, not in English language, studies in which no health-related discussion; study which includes other intervention Study which is not RCTs; clinical trials. studies which is irrelevant to the Topic; studies which are not related to Cyclic Meditation.

Detailed Study Flow Chart:



Results

In the study all important articles were summarized in the table. The table shows Title, Author, Year, Sample size, research method and conclusion. All included studies show positive effect of Cyclic Meditation on Healthy and Non-Healthy Individuals. Cyclic meditation helpful in Psychological. Cyclic meditation is helpful for cardio-respiratory and psychological variable in Healthy and Unhealthy individual, Sleep quality, Psychological Well-being and Quality of Life, blood pressure, pulse rate and anxiety, Asthma, cyclic meditation practice can lead to the development of higher levels of state mindfulness while improving overall psychological wellbeing in healthy individuals.

Discussion

In one of the studies conducted on 60 caregivers of inpatients of neurology for 1 month showed improvement in anxiety and depression levels and also in Quality of life. Pre-to post-test comparisons in the study revealed statistically significant reduction in anxiety and depression and improved quality-of-life in the yoga group as compared with the control group ($P < 0.001$). (Umadevi et al., 2013) Another study done on effect of CM on stress among caregivers of individuals with Development disabilities, (n=40) there was significant reduction of subjective stress & anxiety levels with no objective improvement (Suresh et al., 2018) In a study conducted on 60 elderly people who were given yoga intervention, Yoga group participants had significantly less sleep disturbances ($P < 0.0001$), shorter sleep latency, and decreased use of sleep medications ($P < 0.05$). Yoga exercises improved joint flexibility, prevented decline in the physical function, and improved QOL of elderly people.

Further one more study conducted amongst advanced lung cancer patients and their caregivers where Yoga was given as the intervention; the lung cancer patients showed a significant reduction in anxiety and an increase in mental health domain of QOL with medium effect sizes in benefit finding and small effect sizes in sleep disturbance and spiritual well-being; the caregivers showed a significant reduction in sleep disturbance and a medium effect size for physical health domain of QOL. As patient's QOL typically deteriorated across 6 weeks of radiotherapy, post yoga intervention there was a significant improvement in the patients QOL.(Gandhi et al., 2019) Meditation has been shown to reduce stress and increase feelings of peace and calm. One of them is possibly an improvement in sleep. This assumption may be based on the fact that real-world stress influences cardio respiratory functions during sleep, hence influencing the restorative function of sleep. In keeping with this, meditation techniques have been found to improve the quality of sleep, though this was chiefly based on subjective measures. (Patra & Telles, 2009a)

The CM is taken from Mandukya Upanishad, states: 'In a state of mental inactivity awaken the mind; when agitated, calm it; between these two states realize the possible abilities of the mind. If the mind has reached states of perfect equilibrium do not disturb it again'. The underlying idea is that, for most persons, the mental state is routinely somewhere between the extremes of being 'inactive' or of being 'agitated' and hence to reach a balanced/relaxed state the most suitable technique would be one which combines 'awakening' and 'calming' practices (Subramanya & Telles, 2009c)

CM practice was given to participants (all 32) for a session of 40 minutes on Wednesday during their 1 week stay in Arogyadhama. CM principle is based on periodic cycles of stimulation followed by relaxation, which gives greater relaxation. Earlier studies have used this practice which lasts for 22 min and 30 sec (Subramanya & Telles, 2009c) Present study CM practice lasts for 40 min, divided into 8 steps. Throughout the practice, participants have to keep their eyes closed and the following instruction from audiotape. The instructions emphasized carrying out the practice slowly, continuous, without jerk, with awareness and relaxation.

The present study looked at the effect of Yoga intervention and Cyclic Meditation on improving the Quality of Life and Sleep Quality among the Secondary caregivers of special needs individuals. This study showed significant improvement in Quality of Life and Sleep quality, where one group was given yoga and the other CM. The result shows that there was significant improvement in all the 4 Domains be it physical, psychological, social relationship and environmental Domains. Studies have been conducted previously amongst caregivers where yoga has been given as an intervention, whilst no research has been conducted to focus on the wellbeing of secondary caregivers in specific.

The yoga and the CM groups both showed an increase in the percentage of mean ($M=54.19\%$, $M= 42.98\%$), this shows in both the groups the social relationships domain had a more significant results than the other three domains. The result of this current study suggests that this intervention of Yoga and CM significantly improved Sleep Quality and physical, psychological, social and environmental domains of Quality of Life amongst the secondary caregivers of special needs individuals and increased their efficiency at work and personal life helping them in providing proficient care to special needs individuals. Future studies can include longer follow up periods and strategies to help prolong the observed

beneficial effects, which may include placing a greater emphasis on practice between sessions for participants. After 8 weeks of yoga intervention, there was subjective improvement in Quality of life and sleep quality where the patients felt more relaxed and peaceful. The participants exhibited delight to pursue Yoga in the future; where they also requested to be provided with a follow-up chart for their personal *sadhana* (practice).

Transmission itself cannot be measured by any means available to us, but we can observe its effects in terms of phenomenological experiences, as well as the resultant changes in well-being, cognitive function, and brain activity. As we expect that Transmission will help a practitioner reach deeper stages of meditation sooner, this may be reflected in the neural signatures. For example, we may find changes in brainwaves along a broader spectrum than usual in beginners (Sankar Sylapan et al., 2020) Furthermore, this might be transferred to a state-change with repeated practice. This can be investigated in study designs in which practitioners meditate together with a trainer, where trainers initiate the process of Transmission in one condition, and not in another.

Furthermore, one of the most interesting research possibilities of our method may be hyper scanning, in which the responses of the trainer and practitioner meditating together are measured simultaneously (Scholkmann et al., 2013). This could include the use of near-infrared spectroscopy to measure simultaneous brain activity, in addition to concurrent measurement of autonomic and behavioral responses. These may be integrated to compute estimates of synchronization. Heart resonance between trainer and practitioner may also be investigated. Finally, wearable devices for practitioners to measure heart rate variability and skin conductance response, as used by the researchers will make it possible to assess the effects of Meditation and Cleaning on day-to-day well-being (Crivelli & Balconi, 2017) . The extent to which practitioners either experience or actively practice constant remembrance is also of interest to investigate, as we expect that this will greatly affect the effectiveness of the meditation practice, both in terms of well-being, as well as in speed of development of consciousness.

Strength of the Study

In this systematic review it is found that Cyclic meditation practice is very useful for health. After the review study it was also evident that Cyclic meditation can be helpful for Stress. In this systematic review it's found that Cyclic meditation can be useful Anxiety, Asthma. Cyclic meditation can improve stress coping and stress reactivity. No Side effect or Negative effect of cyclic meditation.

Limitations of the Study

Due to strict selection criteria and the only possible way to use electronic databases for the research. The studies included in this review has its limitations. There can be a possibility of missing studies relevant to the Effect of Cyclic Meditation on Healthy and Non-Healthy Individuals.

Suggestions For Future Research

There should be created an awareness about Cyclic Meditation for Healthy and Non-Healthy Individuals. The study should be done for longer duration so that we can find the detailed effect of Cyclic meditation. There should be attached few flows chart so that we can understand very easily. There should be add more tabular format information so that reader can understand properly. Randomized control trial and control group needed to see efficiency of The Effect Cyclic Meditation on Healthy and non-healthy Individuals. Needed to work in Hindi language in this format so it will be helpful to easily understand for Hindi medium students.

Conclusion

The review shows that cyclic meditation plays an important role on cardio-respiratory and psychological variables in both healthy and non-healthy individuals. Cyclic meditation can be effective in anxiety, asthma, pulse rate, blood pressure etc. Cyclic Meditation is helpful in improve stress coping and stress reactivity. More research is required to record data about the holistic benefits of CM for diverse problems and for diverse groups to establish the technique as therapeutic strategy for various health issues.

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