

Understanding the Effect of Meditation on Sleep Quality and Meaning in Life for Meditators and Non-meditators

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ABSTRACT

Background: Meditation is an age-long spiritual practice known for its inherent ability to bring balance to one's life. Its effectiveness and utility span across varied dimensions of our lives like physical, emotional, spiritual, mental, social, etc. **Purpose:** Earlier studies have shown how meditation has acted as a buffer against stress and has improved the overall quality of life. This study extends this idea and focuses on two aspects of subjective well-being- sleep quality and meaning in life. Hence, the present study aims to understand how practicing meditation impacts our sleep quality and the presence/search of meaning in life for meditators and non-meditators. **Method:** It's a quantitative comparative study, and the participants are two groups (Meditators; n = 49 and Non-Meditators; n = 49) comprising both men and women (18-60 years). The Pittsburgh Sleep Quality Index and the Meaning in Life Questionnaire were used to measure the respondents' sleep quality and meaning in life (measured on two parameters- the presence of and search for meaning in life) through purposive sampling. A few qualitative questions were further employed to understand the group's level of participation with meditation. **Result:** The results suggest that meditators had a better sleep quality, found more meaning in life, and also searched for more meaning in life than non-meditators. **Conclusion:** This study presents considerable implications for the field of spirituality, positive and health psychology for enhancing the overall quality of life and well-being. It also holds importance from a clinical stance, as meditation can be used as a therapeutic tool for treating sleep disorders/problems and depression.

Keywords: Meditation, Sleep Quality, Meaning in Life, Presence of Meaning in Life, Search for Meaning in Life, Spirituality, Well-being.

Meditation (Dhyan), the essence of which is now spread worldwide, is believed to have originated from India. Its roots are essentially embedded in the Hindu school of Vedanta. Eventually, we saw other countries welcoming the concept and engaging with it in various ways. Today, meditation is a global concept that is being utilized in numerous domains ranging from schools to corporates. Hence, there is a rising interest in meditation, and it becomes important to explore and address the benefits one can have by practicing meditation.

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Received: March 19, 2022; March 27, 2023; Accepted: March 31, 2023

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West (1979) describes meditation as an exercise that asks individuals to turn their attention or awareness to a single object, sound, concept, or experience. The ultimate goal is uniting with the Supreme, God, universe, or attaining enlightenment. Meditation allows us to be aware of ourselves and our surroundings. The upcoming literature has revealed numerous benefits in terms of physical, mental, and emotional health that meditation possesses. In one pre/post study, the experimental group with meditators reported fewer symptoms of aching muscles/joints and reduced consumption of drugs and tranquilizers after practicing meditation for 14 weeks. (Turner, 2003). Apart from the physiological impacts, it has also been found that meditation helps with emotional and psychological distress. It helps manage stress, negative mental health, and increases emotional intelligence (Chu, 2009). It was also found that meditation helped alleviate loneliness in people. (Saini, Haseeb, Zada, Ng, 2021). Simultaneously it has been equally interesting to study the structural changes in the brain because of meditation, which has played an important role in emotional regulation, attention, stress reduction, increasing present moment awareness, etc. (Tang, Hölzel & Posner, 2015). These studies underscore the benefits of practicing meditation, and the present study hopes to delineate this idea further by exploring the impact of meditation on sleep quality and the meaning in life.

Sleep Quality

Our sleep quality is an indicator of our well-being and overall health. Due to the high prevalence of sleep disorders and the resulting poor quality of health, it has gained relevance to mental health practitioners. Kline (2013) describes sleep quality as one's satisfaction with the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon waking up. Whereas, poor sleep quality can be defined as waking up many times at night, not being able to sleep within 30 minutes after going to bed, taking more than 20 minutes to go back to sleep, and having frequent nightmares.

Mason et al. (1997) was the first person who reported the effect of meditation on sleep quality. The study found that the senior meditators spent more time in the slow-wave sleep (SWS), had higher theta-alpha power (which indicated higher states of consciousness), and an enhanced level of Rapid Eye Movement (REM). Other studies further supported the idea that meditation played a crucial and beneficial role in enhancing sleep quality. One of the studies pointed out that meditation also affects melatonin levels (Tooley et al., 2000). Melatonin manages sleep rhythm, acts as an antioxidant and immunomodulator (Maestroni, 2001), an antiaging agent and brings a sense of well-being. Aging reduces the melatonin secretion and affects the sleep pattern and quality of the aging population, but the research suggests that meditation enhanced the melatonin levels and sleep quality.

The increase in the adoption of meditation is also resulting from its recognition in clinical practices by considering its effect on insomnia patients for cases of depression, stress, and anxiety. It's crucial to understand that sleep quality also indirectly affects many aspects of our lives, including productivity, performance, communication, relationship, eating habits, concentration, etc. And meditation, among many others, can be one tool that can help people enhance their quality of sleep and hence their health, well-being, and quality of life. It works towards establishing body and mind harmony. (Nagendra, Maruthai & Kutty, 2012).

Meaning in Life

Another important facet of well-being is meaning in life. It has often been linked with the idea of holistic health (Purandaran, 2014) and spiritual well-being (Gomes & Fisher, 2003).

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As per Steger & Frazier (2005), meaning in life can have two dimensions- the current meaning in life, which is the degree to which people feel their lives have meaning, and search for meaning in life which is the degree to which people strive to find meaning in their lives. This study has adopted the same dimensions while measuring 'meaning in life'.

With the increasing interest in meaning in life from the perspective of counseling, it has been noted that it is a facilitator of adaptive coping (Ryff, 1989) or a marker of therapeutic growth (Park & Folkman, 1997). And its cultivation can lead to client growth and recovery. (Lent, 2004). Amidst this, meditation has effectively increased life satisfaction, purpose, and meaning in life for individuals. One study examined the effectiveness of meditation intervention on increasing mindfulness and meaning in life. It was found that participants who were measured pre/post/midsemester reported positive changes over time on facets of mindfulness and meaning in life. (Bloch et al., 2017). Another study on the Brahmakumaris's Raj yoga meditation supports that meditation positively impacted life satisfaction and participants' happiness. These findings point us to explore how people make meaning of their lives and how meditation can facilitate this process for higher levels of well-being. Through these researches, we can work towards including meditation either in the form of a therapeutic tool or as a spiritual practice to help us lead healthier lives.

Why this Study?

India is considered a highly spiritual and religious nation, and as pointed out earlier, meditation holds strongly to Indian roots. Despite meditation holding an important position in the Indian context and having such impactful effects, there is a dearth of literature around the impact of meditation on well-being, especially on physiological constructs like sleep quality. Secondly, the scope of viewing meditation as a therapeutic tool still seems to be limited and attracts dubiousness from practitioners and scientists. Thirdly, because of this skepticism and having to live in a hustle culture, adolescents and young adults might hold a different perspective about the effectiveness and usefulness of meditation or spiritual practices. And this research aims to capture their viewpoints around the same. Lastly, with the growing stress, increased workload, managing multiple tasks, people, especially young adults, have been facing tremendous sleep problems and a decrease in subjective well-being. The present study aims to fill these gaps and understand if meditation helps enhance sleep quality and meaning in life. These benefits also aim to make meditation more approachable and trusted for adolescents and young adults.

METHODOLOGY

Aim: To understand the effect of meditation on sleep quality and meaning in life

Objective

- a) To study the effect of meditation on Sleep Quality between meditators and non-meditating adults.
- b) To study the effect of meditation on Meaning in Life between meditators and non-meditating adults.

Hypotheses

- a) N1- There will be no difference in the mean score on Sleep quality between meditators and non-meditators.
A1- There will be a difference in the mean score on Sleep quality between meditators and non-meditators.

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- b) N1-There will be no difference in the mean score on the Presence of Meaning in life between meditators and non-meditators.
A1-There will be a difference in the mean score on the Presence of Meaning in life between meditators and non-meditators.
- c) N1-There will be no difference in the mean score on Search for Meaning in life between meditators and non-meditators.
A1-There will be a difference in the mean score on Search for Meaning in life between meditators and non-meditators.

Sample

A total sample of 98 randomly selected young and older adults between the age group of 18-60 was selected for the present study. The participants were selected by purposive sampling. Out of these 98 participants, 49 were meditators, and 49 were non-meditators, with 65 females and 33 males.

Tools

Two standardized self-reporting measures were used for measuring sleep quality and meaning in life.

a) The Pittsburgh Sleep Quality Index-

It is a specifically designed self-rated questionnaire to measure sleep quality and disturbances over a one-month time interval. It consists of 19 items which add up to create seven components score- subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. The sum of these seven components yields a global score. The clinimetric and clinical properties of the PSQI recommend its usefulness in psychiatric clinical practice and research activities.

b) The meaning in life Questionnaire-

It is a 10-item questionnaire designed to measure meaning in life, which has two dimensions- a) presence of meaning in life and b) search for meaning in life. The respondents have to answer each item on a 7-point Likert scale ranging from 1 (absolutely true) to 7 (absolutely untrue). The MLQ has good internal consistency, with coefficient alphas ranging in the low to high .80s for the Presence subscale and mid .80s to low .90s for the Search subscale.

c) Demographic and Qualitative Questions

A few qualitative/open-ended questions were included in the questionnaire to capture participant's understanding of meditation and the level of participation with the practice. (Refer to table 1)

RESULT AND ANALYSIS

The following chapter is divided into two broad sections based on the study's objective. Each objective has been presented as a separate section under the headings-Sleep Quality and Meaning in life. Before discussing the findings, a separate section by the name of 'level of engagement with meditation practice' has been included that covers the characteristics of the meditation practice of the meditators.

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Table no. 1 Level of Engagement with Meditation Practice

Note. F= frequency, %= percentage

Categories		F	%
Do you meditate?	Yes	49	50
	No	49	50
For people who practice meditation (N=49)			
How long do you meditate in one setting?	0-15 minutes	30	61
	15-30 minutes	8	16
	30-45 minutes	5	10
	45-60 minutes	3	6
	More than an hour	3	6
In a week how much time approx. do you spend meditating?	0-15 minutes	14	28
	15-30 minutes	10	20
	30-45 minutes	7	14
	45-60 minutes	7	14
	More than an hour	13	26
For how long have you been meditating?	Past 3 months	16	32
	Past 6 months	7	14
	Past 1 year	10	20
	More than an year	20	40

The current study involved participation from both men and women (N=98). There were a total of 33 males with a mean age of 25 and a total of 65 women with a mean age of 31. The mean age of the entire sample was 27. Out of the 98 participants, 49 reported practicing meditation (group one), and 49 reported that they did not practice meditation (group two). Out of the 49 participants who meditated, the highest percentage reported meditating for 0-15 minutes per sitting at 61%, spending 0-15 minutes meditating per week at 28%, and having been meditating for more than a year at 40%. After obtaining the score from all the 98 participants, the data was tested for normality and spread by using the Shapiro-Wilk test on SPSS v. 25. The results indicated that the data was not normally distributed for PSQI and MLQ. The data met the assumptions of the Mann-Whitney U test, and for these reasons, the Mann-Whitney U test was conducted to check the differences in both the groups on Sleep Quality and Meaning in Life.

Table no. 2 Sleep Quality

Mann-Whitney U test

The Pittsburgh Sleep Quality Index						
	n	Mean	SD	Mean Rank	U	Sig
					648.5	.000
Meditators	49	5.22	2.62	38.23		
Non-meditators	49	5.51	3.58	60.77		
Total		4.20	3.019			

Note. n= no. of participants, SD= Standard deviation, U= Mann-Whitney test value, Sig= significance value

The first objective of the study was to understand if there were any significant differences for both the groups on sleep quality. It was hypothesized that there would be no difference between the mean scores of groups one and two on the PSQI. The high scores on PSQI indicate more sleep problems. As seen in Table 2, the scores for sleep quality for group two

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(non-meditators) was significantly higher than group one (meditators) ($U = 648.5, p = .000$). This indicates that meditators had better sleep quality than non-meditators.

Table no. 3 Meaning in life (Presence of Meaning in Life)
Mann-Whitney U test

Meaning in life – The Presence of Meaning in Life						
	n	Mean	SD	Mean Rank	U	Sig
					177.0	.000
Meditators	49	25.53	7.73	70.39		
Non-meditators	49	25.18	6.09	28.61		
Total		4.52	5.31			

Note. n= no. of participants, SD= Standard deviation, U= Mann-Whitney test value, Sig= significance value

The study's secondary objective was to understand if there were any significant differences for both the groups on 'the presence of meaning in life'. The higher scores on MLQ indicate a stronger presence/search for meaning in life. Table 3 suggests that the presence of meaning in life for group one was significantly higher than group two ($U = 177.0, p = .000$). Meditators had a mean score of 25.53 and a mean rank of 70.39, while non-meditators had a mean score of 25.18 with a mean rank of 28.61. This signifies that meditator found more meaning in their lives/found their lives to be more meaningful than non-meditators.

Table no. 4 Meaning in life (Search for Meaning in Life)
Mann-Whitney U test

Meaning in life- Search for Meaning in Life						
	n	Mean	SD	Mean Rank	U	Sig
					539.0	.000
Meditators	49	26.65	6.54	63.00		
Non-meditators	49	26.12	6.05	36.00		
Total		6.61	5.42			

Note. n= no. of participants, SD= Standard deviation, U= Mann-Whitney test value, Sig= significance value

The third objective of the study were to understand if there were any significant difference for both the groups on 'search for meaning in life'. Table 4 suggests that the search for meaning in life for group one was significantly higher than group two ($U = 539.0, p = .000$). Meditators had a mean score of 26.65 and a mean rank of 63.00, while non-meditators had a mean score of 26.12 with a mean rank of 36.00, signifying that meditator searched for more meaning in their lives than the non-meditators.

CONCLUSION AND DISCUSSION

The objective of the present study was to understand if meditation practice affects sleep quality and the presence/search for meaning in life. For this purpose, two groups (group one- meditators and group two- non-meditators) were compared on both the factors using PSQI and MLQ. The results suggest that meditators had a better sleep quality, found more meaning in their lives, and searched for more meaning in their lives than non-meditators.

This finding has far-reaching implications for therapeutic, spiritual, and wellness aspects. It holds significant importance and usefulness in the fields of spirituality, positive and health

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psychology for enhancing the overall quality of life and well-being. It underscores the benefits of utilizing meditation to enhance one's sleep quality and find meaning in their life. From a therapeutic standpoint, meditation can be used as a means to tackle sleep disorders and depression. It can be used as a modality in therapies for helping people improve their sleep quality. Meditation can also be a useful tool to deal with issues of existential and mid-life crisis, a point where people face difficulties in finding meaning in their lives. Similarly, meditation has also proven to be an effective practice to work on enhancing one's spiritual life and overall well-being. Hence, meditation can have a wide range of implications for spiritual and mental development/enhancement as well as for improving one's physiological health in terms of sleep quality.

Future Directions

The present study only considered two aspects of well-being (sleep quality and meaning in life). Future studies can include other dimensions of well-being to see if meditation also exerts its influence over those dimensions. Secondly, this study only highlighted meditation practice, but future studies can also consider other practices within spirituality like affirmations, yoga, etc. or different kinds of meditation practice like mindfulness meditation, transcendental meditation, etc. to see the differences between these practices on well-being (or different components of well-being).

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Srivastava, A. (2023). Understanding the Effect of Meditation on Sleep Quality and Meaning in Life for Meditators and Non-meditators. *International Journal of Indian Psychology*, 11(1), 1857-1864. DIP:18.01.187.20231101, DOI:10.25215/1101.187