



The Relationship between Home-Based Mindfulness Meditation and Quality of Life among Adults in the Colombo District, Sri Lanka: A Cross-Sectional Survey

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Abstract

Mindfulness meditation is increasingly recognized in contemporary psychology as a therapeutic technique to promote optimal living and it is defined as paying purposeful, non-judgmental attention to the present moment, which enhances the quality of life (QOL). In Sri Lanka, people primarily engage in home-based meditation for spiritual well-being, but there is limited research on its broader effects. This study aims to examine the relationship between home-based mindfulness meditation (MM) practices and QOL, and to explore the duration of MM practices and mindfulness attention awareness among practitioners. A quantitative cross-sectional correlational study was conducted using purposive and snowball sampling methods, collecting data from 104 daily home-based meditators in Colombo, Sri Lanka, including 57 females and 47 males. Two self-administered questionnaires were utilized including the World Health Organization Quality of Life-BREF (WHOQOL-BREF) scale, and the Mindfulness Attention Awareness Scale (MAAS) to measure QOL and mindfulness practices. Statistical analysis using Statistical Package for the Social Sciences (SPSS) 25 revealed a significantly moderate positive correlation between the frequency of mindfulness meditation and the physical, psychological, social relationships, and environmental domains of QOL. Additionally, individuals who practiced mindfulness more frequently exhibited higher levels of attention awareness. Additionally, it was found that females

were more likely than males to engage in home-based mindfulness practices frequently or with greater intensity.

Keywords: quality of life; home-based mindfulness meditation; attention awareness

Introduction

Individuals explore various methods to find happiness and quality of life (QOL) in the modern world. Increasing evidence shows that sedentary lifestyles, driven by rapidly advancing technology and a materialistic society, significantly impact overall QOL, including negative effects on the life expectancy, interpersonal relationships, and various social, psychological, and physical aspects (Badowska & Szkultecka-Debek, 2023); therefore, it is essential to address these issues to improve QOL. According to the World Health Organization (WHO) in 1996, QOL is defined as:

“An individual’s perception of their overall position in life, encompassing physical, psychological, social, environmental and spiritual factors, within the context of their cultural and value systems and in relation to their personal goals, expectations, standards, and concerns.”

There are only a few studies that have explored home-based mindfulness meditation (MM) practices globally. Home based mindfulness meditation

concept immerse by applying general mindfulness practice in a person's own environment. It refers to "engage in cultivating mindfulness or present moment awareness through meditation techniques that are conducted independently at home" (Kabat-Zinn, 2013; Baer, 2003). In Sri Lanka, many in the population practises Buddhism (70.1%) and Hinduism (12.6%). Mindfulness practice is also followed by other religious groups, including Muslims (9.7%) and Roman Catholics and Christians (7.6%) (Department of Census and Statistics of Sri Lanka, 2012). Many Sri Lankans practise vipassana and mindfulness meditation, facilitated by readily available resources and guidance (Thennakoon, 2022). Mindfulness techniques are also used in schools and companies to promote well-being and QOL (Kariyawasam, 2022). However, most research has focused on meditation centre-based practices or clinical populations. Also to examine the relationship between MM and QOL, the practice should generally continue over 8 weeks (Lahtinen & Salmivalli, 2019); thus, approaching home based practitioners in the study were more time and cost effective in terms of feasibility. Therefore, this study aims to explore the impact of home-based MM practices on participants' QOL. The study also explored how life satisfaction levels in men and women vary in many areas like physical health, psychological well-being, relationships, and environment, in relation to gender disparities with related home-based mindfulness meditation practice. The literature indicates that there is a significant gender difference with the male sample displaying more mindfulness skill development in comparison to females (Ramasubramanian, 2016; Li et al., 2023). These variations could stem from a range of causes, such as biological, psychological, social, and cultural effects. Research has frequently investigated how gender-related societal duties, responsibilities, and expectations can influence the perceived quality of life (Courtenay, 2000). Comprehending these distinctions was essential for creating focused actions to enhance the welfare of all genders.

The primary objectives of this research are as follows: To determine the relationship between mindfulness meditation practices and quality of life among home-based mindfulness practitioners in the Colombo district. To examine the relationship between the duration of mindfulness meditation practices and mindfulness attention awareness among these practitioners. To explore gender differences in the perceived quality of life and the practice of home-based mindfulness meditation among adults in the Colombo district.

Materials and Methods

This quantitative, survey-based research utilized a cross-sectional correlational study to determine the relationship between home-based MM and QOL. The study included residents of the Colombo district, both male and female, aged 18 to 65, who engaged in daily home-based MM practices and had attained at least a secondary education. Individuals who practiced types of meditation other than mindfulness, experienced significant mental or physical disabilities within the last five years, had brain damage, or could not read or write in English were excluded from the study.

The sample size was calculated using G*Power software (latest version 3.1.9.7; Heinrich-Heine-Universität Düsseldorf, Düsseldorf, Germany) (Faul et al., 2007) which indicated a minimum sample size of 88 that says this number is the best fit for a power value of 90%, a margin of error of 0.05, and an effect size of 0.3 (Faul et al., 2007; Lassander et al., 2021). However, 104 individuals participated in the study. Purposive and snowball sampling techniques were employed to select participants, even though these two techniques are qualitative, it was ideal to select participants who fit the inclusion criteria of the study. It helped to select people who have been trained by a mentor and practicing mindfulness meditation at home. Snowballing method utilized pre-existing networks to increase the number of participants by leveraging relationships from previous meditation retreats and other relevant communities. The World Health Organization Quality of Life-BREF (WHOQOL-

BREF) scale (WHO, 1996) was also used which provided a brief yet thorough evaluation of the quality of life in four areas: physical and mental well-being, social interactions, and environment. Mindfulness practices were assessed using the Mindfulness Attention Awareness Scale (MAAS) (Brown & Ryan, 2003) which emphasizes the conscious recognition and concentration on the current experiences. This scale highlighted the distinct attribute of awareness that is developed through mindfulness, which has a significant effect on the self-control and overall welfare. Data was collected via Google Forms. Participants were instructed to complete a test battery consisting of six sections: an information sheet, a consent form, a demographic information form, two questionnaires, and a debriefing sheet. The Demographic data comprises both male and female Participants categorized under four age groups. Data were gathered under three educational levels. Also, this study gathered information about the type of mindfulness meditation technique that the meditators regularly practice. Furthermore, demographic data provided details on how often meditators engage in mindfulness practices. For the purpose of better understanding, duration of the practice was categorized under three-time spans. Prior to data collection, ethical approval was obtained from the Coventry University Ethics Review Committee through NIBM. Data was collected anonymously using unique participant codes to ensure confidentiality. Also, WHOQOL-BREF scale and MAAS were freely available and granted the permission from the authors. Individual responses were not assessed separately; only the researcher and the supervisor evaluated the data. The data was securely stored on a password-protected laptop and was not disclosed to any external parties. After one year following the thesis completion, the data will be deleted. A total of 104 participants were analysed using the statistical software package (SPSS, 25).

Results and Discussion

Based on the responses, it was found that many early adults to middle-aged individuals (26-35 years)

preferred to engage in daily meditation practices, comprising approximately 42% of the participants. The age groups of 36-45 and above 45 accounted for 22.1% and 23.1% respectively, while young adults (below 25) showed the lowest engagement at 12.5%. Considering the educational background, only a smaller number (2.9%) had schooling up to the O/Ls (Ordinary Level). The average educational level in the participant group was higher than the O/Ls. All the demographic data reflect that diverse range of individuals from different age groups and different educational background were involved in mindfulness practices, emphasizing the widespread appeal and relevance of MM across various stages of life. Furthermore, data reveals that a significant majority of individuals, specifically 94.3%, engage in Mindfulness Breathing, while 85.7% choose to practice Mindfulness Walking, suggesting that these two types are the most popular among practitioners.

Correlation Analysis

Results of the present study suggest that being in the present moment ensures a higher quality of life among participants, which conforms to the research conducted by Bajpai & Kiran (2021), which suggested that prolong period of mindfulness meditation practices positively correlates to a person's social, psychological, physical and environmental factors leading to have better QOL. The present study suggests that the participants generally feel a moderate level of QOL and participants have different levels of awareness and competency in mindfulness activities based on their dimensions of practice (duration, type of practice); these outcomes are supported by previous research (Gürpınar & İkiz, 2022; Rana, 2022; Aydınli, 2019; Shapiro, Schwartz, & Bonner, 1998) indicating that daily practice of home-based mindfulness meditation develops skills, such concentrated attention, non-judgmental awareness, compassion leading to cognitive flexibility and gaining optimal quality of life.

The Correlation between No of Days a Week Engaged in Mindfulness Practices on Quality of Life

Table 1. Correlation between no of days a week and physical domain.

		Physical	No of days per week	
Spearman's rho	Physical	Correlation Coefficient	.520**	
		Sig. (2-tailed)	.000	
		N	104	
	No of days per week	Correlation Coefficient	.520**	1.000
		Sig. (2-tailed)	.000	.
		N	104	104

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation study shows a strong positive link between the frequency of engaging in activities each week and Physical scores, indicated by a Spearman's rank correlation coefficient of .52 ($p < .00$, $N = 104$). The strong correlation suggests that a higher frequency of active days is associated with a higher physical well-being score, indicating a significant connection between activity frequency and physical health outcomes.

Table 2. Correlations between No of days per week and psychological wellbeing

		No of days per week	Psychological	
Spearman's rho	No of days per week	Correlation Coefficient	.561**	
		Sig. (2-tailed)	.000	
		N	104	
	psychological well-being	Correlation Coefficient	.561**	1.000
		Sig. (2-tailed)	.000	.
		N	104	104

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation table indicates a strong positive link between the frequency of participants' engagement in activities each week and their psychological ratings, with a Spearman's rank correlation coefficient of 0.56 ($p < .000$, $N = 104$). Frequent practice is associated with improved psychological well-being, indicating the need of regular practice for mental health.

Table 3. Correlations between No of days per week and social relationship

		No of days per week	Social relationship
Spearman's rho	No of days per week	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	104
	Social Relationship	Correlation Coefficient	.541**
		Sig. (2-tailed)	.000
		N	104

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis shows a strong positive relationship between the frequency of weekly participation and social relationship scores, with a Spearman's rank correlation coefficient of 0.54 ($p < .00$, $N = 104$). This strong link indicates that persons who participate in weekly meditation practice are likely to have more robust social relationships, highlighting the importance of consistent social interaction in improving social well-being and interconnectedness.

Table 4. Correlations between No of days per week and the Environment

		No of days per week	Environment
Spearman's rho	No of days per week	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	104
	Environment	Correlation Coefficient	.570**
		Sig. (2-tailed)	.000
		N	104

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation study shows a robust and statistically significant, positive relationship between the frequency of meditation practice and the environment ratings, with a Spearman's rank correlation coefficient of 0.57 ($p < .000$, $N = 104$). This strong correlation suggests that more participation in weekly practice is associated with an improved quality in the persons' environmental domain, indicating that consistent mindfulness meditation practice might boost a persons' connection and pleasure with the environment.

The Correlation between No of Days A Week Engaged in Mindfulness Attention Awareness

Table 5. Correlations between No of days per week and Attention awareness

		No of days per week	Attention awareness
Spearman's rho	No of days per week	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	104
	Attention Awareness	Correlation Coefficient	.720**
		Sig. (2-tailed)	.000
		N	104

** . Correlation is significant at the 0.01 level (2-tailed).

There is a significant relationship between the frequency of engaging in activities each week and the Attention Awareness scores, indicated by a Spearman association coefficient of 0.72 ($p < .00$, $N = 104$). The strong, positive connection suggests that people who engage in the practice, more often during the week are likely to have greater levels of attention awareness, indicating a considerable influence of regular activities on the cognitive engagement and mindfulness. Research suggests that overzealous meditation participants have experienced adverse effects (Robson, 2021). However, the current study shows that a significant number of participants who engage in mindfulness practice for over a year, engage in mindfulness practice nearly 3-4 days a week or daily between 00-60 minutes per day, have positive correlation leading better attention awareness. Furthermore, "The effects of amount of home meditation practice in mindfulness based cognitive therapy on hazard of relapse to depression in the staying well after

depression" study suggests that daily homebased mindfulness practice significantly lowers the hazard or relapse to depression and positively correlates with the psychotherapy treatment outcomes than those who practice it less often (Crane, 2014; Parsons et al., 2017). Overall results show that the majority of home-based mindfulness meditation practitioners practise mindfulness breathing and mindfulness walking. Among these practitioners' The statistics suggest with the prolonged engagement in the meditation practice, consistent engagement in home-based mindfulness practice per week or frequency and duration meditation practice show a positive correlation with all the four domains of QOL and attention awareness.

Gender Difference in the Quality of Life among Mindfulness Practitioners- Non-Parametric.

Table 6. Gender Difference in Quality of Life Among Mindfulness Practitioners

		Ranks	
		Gender	Mean Rank
Physical	Female	47	53.21
	Male	57	51.91
	Total	104	
Psychological	Female	47	51.20
	Male	57	53.57
	Total	104	
Social relationship	Female	47	58.29
	Male	57	47.73
	Total	104	
Environment	Female	47	53.87
	Male	57	51.37
	Total	104	

The ranking data indicates minor gender discrepancies in different QOL areas. Females have a marginally higher average rank than males in terms of physical characteristics, suggesting a

somewhat better perceived quality. Psychological factors indicate that males have a slightly higher average rank, indicating better overall well-being. In social contacts, females report better experiences compared to males. Environmental variables indicate that the females have a slightly higher average rank once more. Gender disparities in the perceived QOL are generally minimal, except for social interactions, where females tend to report significantly better results.

Table 7. Kruskal-Wallis Test Statistics for Quality of Life.

	Physi- cal	Psy- cho- logical	Social relation- ship	Environ- ment
Chi-Square	.054	.164	3.310	.181
Df	1	1	1	1
Asymp. Sig.	.001	.005	.003	.000
a. Kruskal Wallis Test		b. Grouping Variable: Gender		

The Kruskal-Wallis Test shows large gender disparities in the reported QOL in every domain. Chi-square values for physical, psychological, social relationship, and environmental elements exhibit different levels of significance, ranging from the lowest p-value in the environment (0.000) to the greatest in psychological (0.005). These findings indicate that gender has a substantial role in shaping how individuals perceive their QOL. The most compelling evidence is seen in environmental aspects, but noticeable variations are observed in the social interactions, psychological well-being, and physical health, highlighting the influence of gender on perceptions of QOL. Some studies have suggested that there is a significant gender difference with the male sample showing more mindfulness and better QOL compared to the female sample; however, the current study according to the non-

parametric test analysis indicates although there is an insignificant variation in the averages, somewhat higher social and environmental scores, significantly higher social relationship scores and more inclination to participate in mindfulness practices are seen in the female sample while a significant higher quality in physical and psychological domain is seen in men over women. These findings indicate that gender has a substantial role in shaping mindfulness practices and how individuals perceive their quality of life.

Conclusion

The findings of the present study provide evidence to demonstrate a significant correlation between the frequency and duration of home-based mindfulness practices and all four domains of QOL, as well as practitioners' attention awareness. Significant positive relationships were found with social interaction, environmental, physical, and psychological domains, showing moderate correlations with home-based MM practices. Further, the findings suggests that people who engage in home-based MM activities more frequently, during the week tend to have higher levels of attention awareness. Additionally, the results indicate that gender significantly influences how individuals perceive their QOL as the females in home-based MM practises more often or in higher intensity than males. Considering the challenges faced during the study, time constraints made it difficult to cover a more comprehensive area within the given timeframe. Another limitation was the reliability of participants' self-reported home-based mindfulness practices, which can be subjective based on their interpretations and biases. The variability in the duration and intensity of practice among participants also made it challenging to determine the optimal duration of mindfulness required to enhance QOL. Future research could focus on a more culturally and geographically diverse population conducting an in-depth analysis of the four QOL domains with a larger sample, including those who speak local languages. Additionally, studies could examine how the duration of home-based mindfulness meditation affects its quality, identifying mediating or moderating factors

that influence the relationship between mindfulness meditation and QOL would also be valuable.

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