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Assessment of Mindfulness in Computer Users

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ABSTRACT

Background and need of research: Assessment of mindfulness is essential to understanding its relationship with cognition functions such as attention, awareness, etc. While mindfulness has demonstrated many advantages in the workplace, the objective of this research is to assess the mindfulness in computer users using Mindful Attention Awareness Scale (MAAS).
Methods: An observational study was conducted in Computer worker of Gujarat State. Mindful Attention Awareness Scale (MAAS) were filled from 104 computer users of both the gender between age group of 18 to 25 through online Google forms. Ethical clearance has been taken.
Result: The Statistical analysis of this study shows that Components No.3 (Somewhat Frequently) of MAAS had the greatest number of responses (Mean±SD=40.64±15.61). If you want to check the Low Mindfulness, ask the question no.12 (I drive places on "automatic pilot" and then wonder how I got there). (Mean=39.42).
Conclusion: The study concluded that 60.45% of Computer Users had Low to Moderate level of mindfulness.
Clinical implications: Yoga, Meditation and Breathing exercises, Cognitive exercises.

Keywords: Mindfulness, Computer users, Mindful Attention and Awareness Scale, MAAS.

INTRODUCTION

"Mindfulness is a receptive attention to and awareness of present events and experiences." Brown & Ryan (2003). Mindful Attention and Awareness Scale (MAAS) is a widely used self-report measure that assesses an individual's level of mindful attention and awareness. It is designed to capture the extent to which individuals are able to maintain present-moment attention and awareness in their daily lives. The scale is particularly relevant for studying computer users, given the increasing prevalence of technology and its impact on attention and cognitive processes. The concept of mindfulness and its association with psychological well-being. It provides a comprehensive overview of mindfulness research, including the development and validation of the Mindful Attention and Awareness Scale (MAAS). [(1)]

Mindfulness training is associated with both working memory capacity and emotional experience. the MAAS in investigating the impact of mindfulness training on cognitive processes relevant to computer users. [(2)] the MAAS in exploring the potential effects of technology use on attentional processes and cognitive functioning. [(3)] the development and validation of the MAAS, and its applications in studying computer users. They highlight the significance of mindfulness in promoting psychological well-being and cognitive functioning, thereby emphasizing the relevance of the MAAS in research investigating attention and awareness in the context of technology use. [(4)]

Employees and managers working in the healthcare sector often encounter various sources of stress, including physical and mental suffering and intense emotions, both from themselves and their patients. Effectively managing stress can have positive impacts on the well-being of these professionals and enhance the quality of care provided to patients. Mindfulness training is believed to have the potential to improve the health and work engagement of employees in demanding work environments, thereby positively influencing the quality of services delivered to clients. However, there is a lack of comprehensive reviews examining the effects of mindfulness training on the mental health of employees in different occupational sectors, including computer users. [5]

One widely practiced form of secular mindfulness training is known as Mindfulness-Based Stress Reduction (MBSR) training. Developed by Kabat-Zinn, this program consists of eight weekly sessions lasting 2.5 hours each, along with a full day of silent practice. A key component of MBSR is the homework assigned to participants, which involves engaging in 45 minutes of daily practice at home, six days a week. Support is provided through CDs and specific assignments. The training incorporates various exercises such as the body scan (attending to bodily sensations), sitting meditation (focusing on breath, thoughts, and sensations), simple movement exercises like walking or standing meditation, and gentle yoga postures (exploring and accepting physical boundaries). Additionally, informal meditation exercises encourage individuals to bring mindful attention to daily activities such as brushing teeth, showering, or eating. Mindfulness-Based Cognitive Therapy (MBCT), derived from MBSR by Segal, Williams, and Teasdale, is frequently employed as a preventive measure against depression relapse. [6]

MATERIALS & METHODS

An observational study was conducted in Gujarat, India, after approval from the institutional ethical committee. Data collection was done through MAAS scale created by Google Forms. Data were collected for a period of one month, from December 1 to December 31, 2022. A total of 104 responses were recorded. All participants were aged between 18 and 25 years old, were computer users, and both males and females were included in the study.

The MAAS consists of 15 statements that capture different aspects of mindfulness. Participants rate each statement on a 6-point Likert scale, ranging from 1 (almost always) to 6 (almost never). The scale is designed to measure how frequently one experiences specific thoughts, feelings, or behaviors related to mindfulness in daily life. The higher the overall score, the greater the individual's level of mindfulness (Test- retest reliability r=0.76). [7]

RESULT

An average of 6.25 hours of computer is used by computer worker daily. The Statistical analysis of this study shows that the average score of MAAS is 2.879 in 104 computer users of Gujarat state. If you want to check the Low Mindfulness, ask the question no.12 (I drive places on "automatic pilot" and then wonder how I got there). Mean-1.952

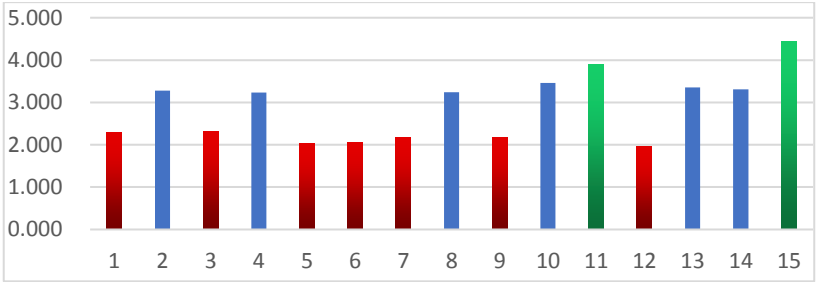

Figure 1 – Mean values of MAAS

Age	Male	Female	Mean±SD
18 - 25	50	54	21.79±1.94

Table 1 – Demographic Profile Of All The Participants.

DISCUSSION

David S. Black et al. (2012) did the study on Adolescents attending high school, China (N= 5,287). MAAS (Mean- 4.4) which concluded that The MAAS was inversely related to mental health ailments. it had medium-to-large inverse correlations with depressive symptoms, perceived stress, and aggression and maintained a significant inverse relationship with mental ailments even after controlling for other psychosocial, attentional, and self-regulation constructs. [10] also, another author Linda E. Carlson et al. (2004) did the study on cancer patients (N=122). MAAS Mean (4.08). The result concluded that higher scores on this single factor measure of mindfulness were associated with lower mood disturbance and stress. The structurally group invariant relation found here between these variables suggests that lower levels of psychological well-being may be due, in part, to lower levels of mindfulness in both cancer and general populations. [11] Et al. Brown and Ryan (2003) discuss the psychometric properties of the MAAS, highlighting its reliability and validity as a measure of mindfulness. They also provide evidence for the association between mindfulness and psychological well-being. The article presents findings that individuals with higher levels of mindfulness, as measured by the MAAS, tend to experience greater psychological well-being, including higher levels of life satisfaction, self-esteem, and positive affect, as well as lower levels of negative affect. [1]

Janssen et al. (2018) conducted a systematic review of existing literature to assess the effects of MBSR interventions on employees' mental health. The review included a range of studies that evaluated the impact of MBSR interventions on various mental health outcomes, such as stress, anxiety, depression, and well-being. The study findings revealed that MBSR interventions had positive effects on employees' mental health. Specifically, MBSR was associated with reductions in stress, anxiety, and depressive symptoms, as well as improvements in overall well-being. [5] Considering the findings of Janssen et al.'s (2018) study, which focused on employees, we can draw several connections to my study on mindfulness in computer users. Despite the difference in the target population, both studies involve individuals who may experience work-related stress and mental health challenges.

Moreover, the authors discuss the potential mechanisms through which mindfulness contributes to psychological well-being. They propose that mindfulness fosters greater acceptance and non-judgmental awareness of one's thoughts and emotions, leading to reduced stress reactivity and enhanced emotional regulation. These processes, in turn, contribute to improved psychological well-being and overall functioning. Overall, the article by Brown and Ryan (2003) [1] highlights the significance of mindfulness in promoting psychological well-being. It provides a comprehensive overview of mindfulness research, including the development and validation of the MAAS. The findings suggest that mindfulness, as assessed by the MAAS, plays a crucial role in enhancing psychological well-being and may serve as a valuable target for interventions aimed at improving mental health and overall quality of life.

CONCLUSION

The study concluded that there is low to moderate effect of mindfulness in computer users, along with the average of 6.25 hours of daily computer use by computer workers. Implementing appropriate strategies like yoga, meditation, breathing exercises, cognitive exercises, and mindfulness-based stress reduction (MBSR) programs can be beneficial. These strategies can help mitigate the potential negative effects of prolonged computer use, reduce stress levels, and enhance overall well-being. By incorporating these practices into their daily routine, computer workers may experience improved

focus, mental clarity, and a healthier balance between work and relaxation.

Declaration by Authors

Ethical Approval: Approved

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Conflict of Interest: The authors declare no conflict of interest.

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