ASSESSMENT OF MINDFUL EATING AMONG VARIOUS FITNESS PRACTITIONERS

[1]Malvika Gupta, [2]Dr. Meena Kumari Patangay and [3]V. Sai Sri Kishore
[1]Student and Researcher,[2]Project Guide & Head of Department and [3]Assistant Professor
[1]Clinical Nutrition and Dietetics, [2]Department of Nutrition and [3]Department of Statistics
St. Ann's College for Women
India

Abstract: Mindful eating is the practice of eating with full awareness, attention, and being non-judgmental of the bodily emotions and physical sensations thereby savoring the food by being totally present in the moment and using the senses of the body enabling one to make healthier food choices and also aiding in weight management. This study aims to assess mindful eating behavior among different categories of Fitness Practitioners using the Mindful Eating Questionnaire (MEQ) and also to analyze if there is a relation between MEQ scores and the BMI of the fitness practitioners. Furthermore, this study aimed at analyzing if the 5 domains of Mindful eating scores have an impact on fitness practitioners. This study also aimed at assessing the dietary consumption between different fitness practitioners through the Semi-Quantitative FFQ. A sample size of 200 fitness practitioners was chosen in total, with 50 practitioners in each of the mentioned fitness categories. The data was collected through online measures via a pre-tested survey form which included information on demographic data, a validated 28 item MEQ and a self-designed & pre-tested semi-quantitative FFQ. There was an association found between the MEQ scores & yoga practitioners and long-distance runners. Further, there was no significant difference found between the MEQ scores and BMI of the fitness practitioners. Out of the 5 MEQ domains, only 'Disinhibition' and 'Attention' were seen to be associated with fitness practitioners and there was a significant association seen in some of the food groups and fitness practitioners.

Keywords: Fitness, Intense Workout, Long-Distance Running, Mindful Eating, Yoga, Zumba.

Introduction

Traditional diet programs that encourage individuals to consciously restrict their dietary intake haven't only been ineffective in terms of weight outcomes, but have also been counterproductive, promoting psychological distress and unhealthy eating behaviors.

Non dietary practices shift the main target removed from weight outcomes to the development of health outcomes and psychological well-being (J.T. Schaefer & A.B. Magnuson, 2014). One of such popular dietary practices that is well known today, is the practice of Mindful Eating which promotes dietary intake based on factors like response to the internal body cues, External or environmental related hunger cues, fullness, satiety signals, body acceptance promoting a healthier and a sustainable way of weight loss. It is solely currently, that, as generations have evolved, technology has vastly advanced, and our habits and lifestyle have been influenced so deeply, that the associate imperative want for an idea like "Mindful Eating" has suddenly unfolded and started gaining immense importance in the recent years.

What is Mindful Eating?

Mindful eating is characterized by being fully present in the moment and using all the senses in the body to taste and savour food (Miho Hatanaka, 2015). Mindful eating is the practice of eating with full awareness and attention of the food on the plate. By doing so, the body and mind are able to optimally process the meals. "Mindful eating" describes a non-judgmental awareness of physical and emotional sensations associated with eating (Framson et al., 2009).

Benefits include enjoying meals more, being naturally compelled to eat better, higher quality, and healthier foods. It also includes having the power to analyze and understand the various varieties, texture, and flavors, that the foods possess and the sort of effects it has on one's body and enabling one to enjoy a lifestyle that naturally promotes the body's natural and optimal weight.

Method and Methodology

Study Type and Population: The study type is described to be as a "Comparative Survey Research" study. It involves the comparison of Mindful eating scores between 4 different Fitness categories i.e., Yoga practitioners, Long-Distance Runners, Zumba practitioners and Intense Workout practitioners aged between 20 - 50 years.

Population Size: The Sample size of 200 Fitness practitioners in total was collected. It Involved 50 Practitioners in each of the mentioned fitness categories for an unbiased and equal data scoring and visualization.

Tools used in the Study: The research instrument used, consists of a 'pre-tested survey form' which was divided into 3 sections. The first section was a demographic questionnaire to collect basic information of the participants. The second section consisted of a 28 – Item Mindful eating questionnaire (MEQ) validated and developed by Framson and colleagues (2009). It comprised of five domains: awareness (7 items), emotional response (4 items), external cues (6 items), disinhibition (8 items) and distraction (3 items). Responses ranged from 1 (never) to 4 (always) and 'not applicable' for selected questions. The Mindful Eating Questionnaire was pretested on 25 people even though it is an approved one, before it was subjected to use in the study. The third section of the questionnaire consisted of a self-designed & pre-tested semi-quantitative food frequency questionnaire (FFQ). This questionnaire was used to assess the eating and dietary consumption of the individuals. Furthermore, the questionnaire has been modified and been tailored according to the foods that are commonly consumed by the fitness practitioners (for e.g., millets and functional foods).

Statistical Analysis: Multiple methods were used to analyze the data. In the first part, the demographic data was analyzed by providing percentage analysis and descriptive analysis. Analysis of Variance (ANOVA) has been performed to identify if there is any significant difference between the MEQ scores and fitness practitioners, MEQ scores and BMI levels as well as the 5 domains of MEQ (Disinhibition, Awareness, Attention, Emotional eating and External cues) and the fitness practices.

Results

Objective 1

One-way ANOVA was performed between mindful eating scores and fitness practitioners and since the obtained P-value $= 0.012 < 0.05$, there is evidence at 5% los that there is a significant difference between mindful eating scores of different fitness practitioners.

Objective 2

One-way ANOVA has been performed to identify if there is any significant difference between BMI values and mindful eating scores and since the obtained $P – value = 0.402 > 0.05$, there is an evidence at 5% los that there is no significant difference between mindful eating scores and different BMI levels.

Objective 3

One-way ANOVA was performed between mindful eating scores 5 domains (Disinhibition, Awareness, Attention, Emotional eating and External cues) and fitness practitioners.

A. Disinhibition: Since the P-value obtained was, $P = 0.077 < 0.1$, there is evidence at 5% los that there is a significant difference between mindful eating scores of different fitness practitioners for the domain "Disinhibition".

Further to identify, the pair of fitness practitioners which had a significant difference to "Disinhibition" subscale of the MEQ score, a post hoc test – Tukey test (at $\alpha = 0.1$) was conducted between all the possible, i.e. 4c2 = 6 pairs of fitness practitioners.

It was inferred that the MEQ subscale "Disinhibition" displayed a significant difference between Yoga practitioners and Long-Distance Runners.

B. Awareness: Since the P value obtained was, $P = 0.779 > 0.1$, there is an evidence at 5% los that there is no significant difference between the MEQ subscale "Awareness" and the fitness practitioners.

C. Attention: Since the P value obtained was, $P = 0.019 < 0.1$, there is evidence at 5% los that there is a significant difference between the "Attention" domain of different fitness practitioners.

Further to identify, the pair of fitness practitioners which had a significant difference to "Attention" subscale of the MEQ score, a post hoc test – Tukey test (at $\alpha = 0.1$) was conducted between all the possible, i.e., 4c2 = 6 pairs of fitness practitioners.

It was inferred that the MEQ subscale "Attention" displayed a significant difference between Yoga practitioners and Long-Distance Runners as well as Yoga practitioners and Intense workout practitioners.

D. Emotional Eating: Since the P value obtained was, $P = 0.083 > 0.05$, there is an evidence at 5% los that there is no significant difference between the MEQ subscale "Emotional Eating" and the fitness practitioners.

E. External Cues: Since the P value obtained was, $P = 0.673 > 0.05$, there is an evidence at 5% los that there is no significant difference between the MEQ subscale "External cues" and the fitness practitioners.

Objective 4
Comparing the FFQ parameters of Yoga with Long Distance Runners, Zumba &Intense Workout practitioners
(A)Yoga Practitioners & Long-Distance Runners
The consumption of millets, fruits and meat and products was observed to higher in long distance runners than in yoga practitioners with P-Value = 0.063 < 0.1, P-Value = 0.052 < 0.1, P-Value = 0.004 < 0.1 at 10 % los respectively.
(B)Yoga Practitioners & Zumba Practitioners
Sugars: Sugar consumption was observed to be higher in Yoga practitioners than in Zumba practitioners with P-Value = 0.015 < 0.05 at 5% los.
(C)Yoga Practitioners & Intense Workout Practitioners
Meat & Meat Products: Meat & meat products consumption was observed to be higher in Intense workout practitioners than in yoga practitioners with the obtained P -Value = 0.0 < 0.05 at 5% los.

Discussion
The present study showed that there is an association between mindful eating and the different fitness practitioners, particularly between Yoga practitioners and Long-Distance Runners.

Perhaps, as predicted from the past studies, this study showed a significant association of mindful eating with yoga as well as with long-distance runners. Adding on, Zumba and intense workout practitioners showed no association with the MEQ scores. Similarly, it is interesting to note that the study conducted by Framson et al., (2009) had also seen an association of MEQ scores with Yoga practitioners but did not find any association with walking and moderate/intense physical activity.

Surprisingly, in contrast to the previous studies, this paper showed no significant difference between mindful eating scores and the different BMI levels of the fitness practitioners, though a few studies have also clearly stated that though they found a positive relationship between BMI and MEQ [Framson, Celia et al. (2009), Sidek, S. et al. (2019), Moor, Katrina R. et al. (2013)] the correlations were weak (Christy Loui-Tang 2019).

This study also found a statistical significance for the 'Disinhibition' MEQ subscale among the Yoga practitioners and Long-Distance Runners, however, there was no statistically significant difference found between any of the fitness practitioners for Awareness, Emotional Eating, and External Cues MEQ subscales.

Lastly, the 'Attention' MEQ subscale was found to have a statistical significance for the Yoga practitioners and Long-Distance Runners as well as Yoga and Intense workout practitioners.

The consumption of millets, fruits, and meat & meat products was observed to be the highest in long-distance runners compared to yoga practitioners. Sugar consumption was observed to be the highest in Long Distance Runners. The consumption of meat & meat products was observed to be highest in Intense workout practitioners followed by long-distance runners and the lowest in yoga practitioners.

Conclusion
The practice of Mindful eating has seen to be associated with yoga practitioners & long-distance runners. The BMI levels and mindful eating showed no particular association with each other. The MEQ Subscales – Disinhibition (seen in Yoga Practitioners and Long-Distance Runners) and Attention (seen in Yoga Practitioners and Long-Distance Runners; as well as Yoga practitioners and Intense workout practitioners) showed a significant difference between different categories of fitness practitioners whereas the other 3 subscales – Emotional eating, External cues, and Awareness showed no association. Mainly, the consumption of cereals followed by fruits, vegetables, and Nuts & Oil seeds was seen to be the highest among all the fitness practitioners together. Furthermore, the consumption of meat and meat products was seen to be the lowest among yoga practitioners predicting a vegetarian preference for most of the yoga practitioners. Since there was no significance found between mindful eating scores and the BMI, we can conclude that fitness practitioners with high levels of BMI displayed less mindful eating.

Suggestions

This study has been done to promote awareness on mindful eating setting and keep in mind, good health for people. A suggestion for healthcare professionals, nutritionists, dietitians, and health coach experts, etc would be to encourage and educate their clients to inculcate and make this practice a part of their routine. It doesn't take any diet planning or calculating but only the inner intelligence to decide when to stop eating, what to be eating and how much to be eating. If followed religiously, the concept of mindful eating can cause an immense revolution in the weight loss and health sector in today's era where it's most needed.

References

1. Framson C, Kristal AR, Schenk JM, Littman AJ, Zeliadt S, Benitez D. Development and validation of the mindful eating questionnaire. J Am Diet Assoc. 2009;109(8):1439-1444.
2. Hatanaka, Miho, "A Study to Explore Mindfulness among Vegetarian and Non-Vegetarian Students on a College Campus" (2015). Syracuse University Honors Program Capstone Projects. 873.
3. Loui-Tang, Christy, 2019. Evaluating Mindful Eating Mobile Application in College Students, The University of Arizona. 24/03/2021 14:38:03
4. Moor, K.R., Scott, A., & McIntosh, W. (2013). Mindful Eating and Its Relationship to Body Mass Index and Physical Activity Among University Students. Mindfulness, 4, 269-274.
5. Schaefer JT, Magnuson AB. 2014. A review of interventions that promote eating by internal cues. J Acad Nutr Diet.;114(5):734-760
6. Sidek, S., Ahmad, S., Hamirudin, A.H., Bakar, W.M., & Unal, T.I. (2019). Mindful Eating Practice Predicts Lower Body Mass Index Among University Students. Pakistan Journal of Nutrition, 18, 977-982.

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