



Original Article

Gender Based Association of Mindfulness Among University Students of Lahore, City

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ABSTRACT

Mindfulness is an emerging topic which has gained an immense attention amongst the researchers. Different researches are being conducted to examine the technique to instill mindful eating in people's mundane routine. **Methods:** A quantitative evidence-based, cross-sectional study was conducted at University of Lahore from September 2021-December 2021 having a sample size of 300 people. 150 males and 150 females aging 17-49 were involved in the survey. **Results:** The analysis of data revealed a significant outcome among males and females regarding degree of knowledge and mindful practices ($r=.244, p<0.05$) and ($r=.445, p<0.05$) respectively. Significant ratio in emotional responses say anxiety ($r=.491, p<0.05$), self-control ($r=.180, p<0.05$), boredom ($r=.105, p<0.05$). External cues such as peer pressure ($r=.246, p<0.05$), food palatability ($r=.013, p<0.05$) and other distractions ($r=.914, p<0.05$) effected both genders in a significant way, along with the internal cues like satiety ($r=.952, p<0.05$), overeating ($r=.155, p<0.05$) and food restrictions ($r=.315, p<0.05$) that had influence over males and their female counterparts as well. **Conclusion:** This survey proved to be beneficial in understanding the society's knowledge about the mindful eating, their dietary habits and how they deal with the different food cues in their life. The findings showed almost an equal response from both genders however more interventions and researches are needed in this particular area as a significant number of people are actually inclining towards the idea of mindful eating and need proper guidance and programs to make it possible for them to inculcate it in their daily lives.

INTRODUCTION

Mindfulness, is a state of being conscious of something. Jon Kabat-Zinn introduced the concept of mindfulness as "paying attention in a particular way, on purpose, in the present moment and non-judgmentally" [1] which basically comes from ancient times, approximately back from 2500 years. In recent times this method has gained a lot of attention as it plays a vital role in reshaping the eating habits [2]. "Mindful eating is a practice of paying undivided attention to the food without any discernment towards oneself and one's health". As WHO defines health as "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [3]." Regardless of being enlightened to this concept, food makes a drastic difference in one's physical and emotional behavior. Mindfulness is a multi-perspective approach instead of an outcome-oriented behavior. Mindfulness has been associated with various aspects of our daily lifestyle

whether it regards our emotional behavior, personality traits or diseases such as obesity and diabetes as shown in these four Correlational, quasi-experimental studies [4]. In study number one and two, they evaluated the trait mindfulness and uncontrollable eating in college students and the public generally, and identified that more people are inclined towards mindfulness and had less uncontrollable eating [4]. In study three, they experimented with state and brief mindfulness induction to see if it has a causal effect on eating behavior where they found out after conducting an activity that a brief and trait mindfulness were linked to lower calorie consumption [4]. In study four, they asked individuals to opt between higher or less dense calorie snacks to generate more steadfast proof where it was discovered that mindfulness is linked to making healthier snack choices [4]. A previous study done by Yeoman et al. explained that women having high

disinhibition are more attracted to the palatability of food [5]. Another theory guided study performed on Latin women to observe obesity and mindfulness where they investigated the effects of a satiety-focused mindful eating intervention (MEI) on BMI, weight, and mindful awareness using the Information-Motivation-Behavioral Skills Theory as a framework [6]. The researchers utilized a prospective randomized controlled experiment with two parallel treatments to check the impact of mindful eating as a successful weight-loss and glycemic-control strategy for diabetic. Weight and glycaemia outcomes were comparable between the two regimens, indicating modest weight and HbA1c reductions [7]. A pilot study conducted by Hepworth on eating disorders management where individuals took part in a 10-week intervention aimed at improving hunger and satiety cue awareness [8]. The findings suggest that learning mindfulness techniques in a group setting could be a valuable supplement to ongoing individual treatment for patients with a variety of eating disorder [8]. A similar case study done on an anorexic patient to treat food restriction showed a significant improvement in her overall behavior towards food, gained some weight and she reported to be eating more of her "fear foods," such as pizza, milk, and some meats [9]. A cohort study among the university students was done to analyze the relationship of mood with mindful eating and disordered eating. It was concluded that women were more mindful as compared to men, evaluated through MEQ (Mindful Eating Questionnaire) score [10]. One exploratory qualitative research was done on 8 male and 8 female university students. They were selected on the basis of their emotional eating behavior. It was concluded that females ate emotionally when they were under stress and they felt guilty after binge eating. On the other hand, males tend to eat emotionally when they get bored and felt no guilt afterwards [11]. An online survey was done through a survey tool known as "SURVEYMONKEY" where the relationship between mindful eating and mental well-being was observed and found a significant correlation between the two variables [12]. There is a strong association between our emotional state and eating practices [13]. Emotional eating can be defined as the likelihood of eating in excess or not adequately in response to emotional triggers like anxiety, depression, etc. There are more than 1 billion people who are overweight worldwide and this number is going to get doubled in the coming years [13]. In addition to the advancement in food technology and the development of palatable food items, one important factor that is contributing to this rise is emotional eating [13]. Emotional and unrestrictive eating are problematic eating behaviors that lead to uncontrolled food intake, causing loss of natural ability to eat independent of hunger and satiety

cues [14]. One of the aims of mindful eating is to satisfy the body's physical and emotional needs and the pleasures associated with it [14]. Disinhibition refers to the ability to eat excessively as a response to different triggering factors [15]. These factors can be any emotional disturbance, stress, or having exposure to palatable food [15]. Disinhibition can be habitual and situational too [15]. Habitual Disinhibition stated the tendency to overeat in response to daily life situations or circumstances whereas social disinhibition refers to the tendency to overeat as a response to certain situations such as social gatherings [15]. Hunger cues [16] and satiety cues affect the consumption of meals by helping us realize when to stop devouring our meals, but perhaps, can also influence considerably how much you will eat after a period of time which in turn is important for the food consumption [17]. The food intake of a human body is regulated in a very balanced way through a system that regulates it by maintaining the body's homeostasis [18]. But still, our psychological satiety and hunger cues are mostly overruled by external cues present in our eating environment [18]. According to previous research in restaurants, it showed that people ate more when they were served a bigger portion, or if others around them ate more, and when some food products had low-fat labels on them [19]. Scholars have deduced from these results that people are very easily triggered by their environmental cues [17]. Moreover, busy lifestyle, peer pressure, multi-tasking and stressful environment, all have resulted in loss of connection with internal cues [18]. This study was conducted to investigate the awareness of mindful eating and the extent to which it is being practiced among the students of University of Lahore. Accompanying the assessment of degree of knowledge, the motive was to spread the technique as it helps to be in harmony with one's own self as it helps to enhance the positive relationship with the body and food.

METHODS

It was a quantitative evidence-based, cross-sectional study with a sample size of 300 university going students, conducted at University of Lahore from September 2021 – December 2021. 150 males and 150 females aging 17-49 were involved in this survey. A pretested questionnaire was the tool to gather information about demographics, degree of knowledge, emotional response, disinhibition, external cues and internal cues that can help identify the ratio of mindful to mindless eating in the population. Data was analyzed using IBM SPSS version 23.

RESULTS

According to study populace 150 were males and 150 were females. Majority of respondents (254) belonging to age range 18-24 years (Table 1).

DEMOGRAPHICS		FREQUENCY
GENDER	Male	150
	Female	150
EDUCATION	Undergraduate	256
	Postgraduate	44
AGE	17	36
	18-24	220
	25-34	33
	35-49	11

Table 1: Frequency Distribution of Sample According to Age and Education

Through the survey, it was found that there is no significant difference in the degree of knowledge between males and females. Out of 150 males and 150 females, about 45 males and 47 females were practicing mindful eating while 67 males and 64 females could identify their hunger and non-hunger triggers, respectively. On the other hand, equal number of males and females never practiced mindful eating and weren't sure about their hunger and non-hunger triggers respectively as shown in Table 2 below.

Intentional practice of mindful eating				
Gender	Always	Sometimes	Rarely	Never
Male	45	73	19	13
Female	47	62	28	13
Identification of hunger and non-hunger triggers				
Gender	Yes	No	Sometimes	Not sure
Male	67	31	39	13
Female	64	21	53	12

Table 2: Degree of Knowledge among genders

The results showed that external cues overall affect females more than males. 125 and 118 females were more affected by external and internal cues i.e., Food palatability and satiety cues respectively as compared to 110 and 114 males respectively (Table 3). Through the survey, it was concluded that despite a minute difference between the ratio, males have more emotional responses towards food than females. They were driven by their emotional states frequently and made food choices accordingly. For Example; Out of 300 males and females 44 males and 42 females tend to eat more when they were anxious, while 106 males and 108 females were not affected by their mood (Table 4).

External Cues and Internal	Male		Female		P value
	Yes	No	Yes	No	
Peer pressure	79	71	91	59	.251
Food palatability	110	40	125	25	.273
Environmental triggers	96	54	102	48	.075
Distraction	89	61	85	65	.914
Hunger & satiety cues	114	36	118	32	.952
Food cravings	131	19	126	24	.341
Food restrictions	70	80	62	88	.318
Dessert cravings	103	47	102	48	.314

Table 3: Comparison of External Cues and Internal Cues Among Gender

Emotional Cues	Male		Female		P-value
	Yes	No	Yes	No	
Food Controls You	70	80	52	98	.181
Anxiety	44	106	42	108	.492
Boredom	53	97	50	90	.106
Binge Eating	45	105	44	96	.137
Taste of Food	103	47	94	56	.689
Food Cravings	66	84	68	82	.480

Table 4: Comparison of Emotional Response Towards Food Among Gender

DISCUSSION

The present study evaluates the people's knowledge about

mindfulness and mindful eating. This study is one of its own kind, as previously no research has been done to evaluate the awareness about mindfulness and mindful eating amongst males and females. The purpose of this study was to analyze the extent to which mindful eating is being practiced and how many people are aware of it among male and female students of the University of Lahore. It was deduced from this study that males are more emotional eaters as compared to females but the results were not significant ($p < 0.05$) as supported by a study done by Giannopoulou which had a similar result showing that males were more mindless eaters as compared to females [10]. While a study by Bennett J (2013) illustrated that females ate emotionally when they are stressed and felt guilty afterward as compared to males [11]. This study was conducted during pandemic COVID-19, which was a high time for stress amongst people. As they were housebound, the only recreation was food. It led to mindless eating as many restaurants were offering free delivery options and pocket-friendly deals. This finding highlights the importance of mindfulness as it helps people to make better and healthier food choices. One similar study based on 8 weeks mindfulness-based intervention provides support for the notion that mindfulness helps people to achieve higher level of self-awareness [20]. Hence it leads to better self-control, reduced food cravings, less emotional eating, self-acceptance and healthier food choices. It was concluded from the results of subscale internal cues that women were more efficient in recognizing and regulating their hunger and satiety cues ($p < 0.05$). A similar study by Khan (2014) highlights the importance of learning of paying attention to their internal cues and self-regulating their hunger and satiety cues. Awareness of physical sensations like hunger and satiety cues, reduces the likelihood of eating in the absence of hunger or under the influence of environmental triggers [20]. Many participants from this study gave positive feedback. They reported that the provided questionnaire gave them an insight about mindfulness and it improved their level of awareness regarding food choices, eating habits, internal and external triggering factors and their causal effects on eating patterns.

CONCLUSION

It was concluded through this cross-sectional study that emotional responses affect people in making their food choices. It was found that males get more affected by their emotions than females. Boredom and anxiety trigger men more than women in choosing their food options. External and internal cues impact causally both men and women. But women are more triggered than men by their external and internal cues. Be it peer pressure, distractions, or

cravings women get more driven by their external and internal cues than men. It was evaluated that there is no significant difference in the degree of knowledge between males and females regarding mindfulness. Findings showed there is almost equal response of both the genders towards mindful eating.

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