Dogo Rangsang Research Journal
ISSN: 2347-7180
UGC Care Group I Journal
Vol-12 Issue-04 No. 03 April 2022

INTAKE ATTITUDE AND ITS IMPACT ON BODYMASS INDEX AMONG COLLEGIATE WOMEN

Dr.Margrette Leena.V Assistant Professor & HOD Physical Education,All Saints' College, Thiruvananthapuram, Kerala,india : leena.margart063@gmail.com
Dr Jayarajan David.D Director, Department of Physical Education, University Of Kerala, Thiruvananthapuram : babuhockey@gmail.com,babucoach@rediffmail.com

ABSTARCT

The purpose of this study was to find the food intake attitudes and its impact on the Body Mass Index among collegiate women belonging Kerala, India. Includes South (686), Middle (544) and Northern (545) were selected at random for the study. Food intake was measured using Eating Attitude Test by Garner (1997) administered for the study. ANOVA results and post-hoc test on dependent variable Eating Attitudes evidently shows that the dependent variable intake Attitude is statistically significant differences among BMI ($F=544.624$, $p<0.05$).

Key words: Intake Attitudes, Body Mass Index, Colligate, Kerala, India

INTRODUCTION

Eating attitudes consist of beliefs, thoughts, feelings, behaviours and connection with food, and considering these attitudes may help to understand food choices. The dietary pattern of a residents is governed by various factors such as geography of the region, socio-economic and cultural characteristics of the people and their exposure to the world outside. We eat not just because we are hungry and craving nutrients but also for a host of emotional and habitual reasons. Healthy eating is not about strict dietary limitations, staying unrealistically thin, or depriving our self of the foods we love. Rather, it's about feeling great, having more energy, and stabilizing our mood. College students are an ideal population with which to explore eating behaviours as the first time an individual is able to make his or her own food choices is commonly during college years [23]. They are at an increased risk for poor eating habits due to their stressful lifestyle, and frequently poor diet practices. This phase in an each persons life is an important time to build up healthy eating attitudes and behaviours to prevent diseases later stage of life. The onset of puberty means that the individual's focus is often very much on body shape and weight, the process of individuation makes personal control into an important issue, and the formation of social bonds makes the teenager particularly sensitive to others' evaluation of her appearance. The normative rank of unhealthy eating attitudes increases in teenage stage of prsons life. Self-esteem plays a particular part in the development of eating disorders [4].

Research has suggested that eating disorders and disordered eating are widespread on college campuses [9]. Eating disorders on college campuses are considered to be more than the expected in general population. College campuses have been referred to as a "breeding ground" for the development of an eating disorder. Social changes encourage unhealthy food consumption and sedentary lifestyles, society penalize the fat body. We live in a "culture of thinness" in which role of media is celebrated in an quixotically and firm body ideal, especially for women.

Studies focusing only on women have shown that overweight women had a stronger drive for thinness and a more negative body image than normal-weight women or underweight women. Overweight women, especially, have more negative views about their appearance, fitness, and health. Disordered eating and body dissatisfaction are influenced by body mass index (BMI) and socioeconomic status (SES). [5] found that higher BMI ratio were found significantly correlated with higher body dissatisfaction in preadolescent girls. Elevated BMI has been found to be positively associated with disturbed eating attitudes influenced by a desire to be thinner. The purpose of the study is to assess possible relationships between Eating Attitudes on BMI among a sample population of female undergraduate college students in South, Middle and Northern regions of Kerala.

Methods

1775 General College women students, Kerala, India belonging to varied regions as south, middle and north were selected at random for the study. The age of the subjects was between from 17 to 23 years. Data was primarily collected from colleges were subjects belong. After providing their consent, participants completed the measures in the same order described below in the year 2014.Researcher took data from all the fourteen districts of Kerala grouping the district into three regions namely: South, Middle and North. The southern region includes four districts namely: Trivandrum, Kollam, and Alappuzha and Pathanamthitta districts. The Middle region and the Northern region of kerala.

Instrumentation to test Eating Attitude Test (EAT-26)

The EAT-26 has been a particularly useful screening tool to assess "eating disorder risk" in high school, college and other special risk samples [9]**.** The Eating Attitudes Test is the tool that is commonly used as a screening instrument for the presence of disturbed eating patterns. The questionnaire contained 26 questions and the score minimum 0-78 maximum. All the questions, except the question number 26, receives the following value: Always = 3 ,Usually = 2 ,Often = 1 ,Sometimes = 0,Rarely = 0 ,Never = 0. For question number 26, the responses value receive on reversed order such as :Always = 0 ,Usually = 0 ,Often = 0 ,Sometimes = 1 ,Rarely = 2 ,Never = 3 respectively. The total score is obtained by adding the value of each responses together. Higher score ranging from 20 and above indicate chance of an eating disorders and other related behaviours such as are anorexia nervosa and bulimia nervosa.

Body Mass Index (BMI)

Body Mass Index (BMI) is the ratio of weight to height measured in kilograms/metres^2. Measured height and weight values were used to estimate and categorize weight status according to body mass index of each individual, a standard assessment of body fat composition [1], obtained for this study from the formula known as Quetelefs Index, which calculates the ratio of weight, in kilograms, to the square of height, in meters [8]. Measured height and weight were taken from the students and was classified as underweight (below18.5), normal weight (18.5–24.9) and overweight (above 25). In the current study, BMI was treated as a continuous variable with lower numbers representing less fatne.

Results and Discussion

Table.1 : Details of the College Women Participants in the Study

Variables		Value Label	N
Region	1	South	686
	2	Middle	544
	3	North	545
Body Mass Index	1	Under weight	545
	2	Normal	1136
	3	Over weight	94
Total			**1775**

The above presented Table.1 shows that, a total of 1775 undergraduate college women in Kerala state were participated in the study. Out of these subjects a total of 686 (38.64 %) students from South region, 544 (30.64%) from Middle region and 545(30.70%) from north region of Kerala. Body Mass Index of the participants are concerned, 545(30.70%) belongs to Underweight category, 1136 (64%) are from normal and only 94(5.29%) from Overweight Category.

TABLE 2 :Descriptive Statistics of Body Mass Index among the regions

Type of region	Mean	Std. Deviation	N
South	20.01	2.942	686
Middle	19.70	2.912	544
North	20.28	2.937	545
Total	20.00	2.938	1775

The descriptive statistics of dependent variable body mass index on region is shown on Table 2 that, Female belonging to southern region mean score was 20.01 (SD =2.942) and Middle region mean score was 19.70 (SD= 2.912) and among the female belong to Northern region mean was 20.28 (SD = 2.937).based on the general dependent variable body mass index mean score was 20.00 (SD=2.938). The graphical representation of the mean score of body mass index between regions, are presented below in Fig1.

Figure. 1 : Estimated marginal means of mean score of Body Mass Index among the regions

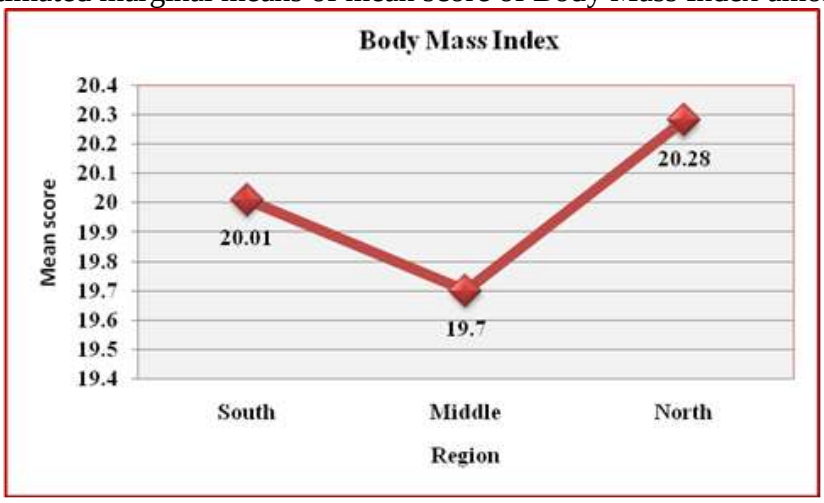


Table 3 : Descriptive statistics of dependent variable Eating Attitudes on Region and BMI Class

Dependent Variable	Demographic variables	Sub Scale	Mean	Std. Deviation	N
Eating Attitudes	Region	South	10.657	8.008	686
		Middle	10.483	8.434	544
		North	10.983	7.576	545
		Total	10.708	8.006	1775
	BMI Class	Underweight	10.834	8.175	545
		Normal	10.184	7.738	1136
		Overweight	16.234	8.246	94
		Total	12.417	8.053	1775

The descriptive statistics of dependent variable Eating Attitude on Region and BMI Class is shown on Table-3 that, Female among the regions, the total mean score was 10.708 (SD =8.00626) and Body mass index and the total mean score was 12.4176 (SD= 8.05376).

Table 4 :Univariate ANOVA on Eating Attitudes with Region, Body Mass Index of females

Source	Demographic Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Eating Attitude	Region	72.089	2	36.045	.582	.559

	Body Mass Index	1089.248	2	544.624	8.722	.000

*** Significant at .05 level**

The ANOVA result on Table 4 reveals that, the dependent variable Eating Attitude is statistically significant differences among BMI (F=544.624, p<0.05).But no differences found with Region(F=.582, p>0.05) .

Table 5 :Pair wise Comparisons of Eating Attitude

Dependent Variable	Demographic Variable	Sub Variable (I)	Sub Variable(J)	Mean Difference (I-J)	Std. Error	Sig. (P-value)
Eating Attitude	BMI	Underweight (10.83)	Normal	.6509	.411	.254
			Over weight	-5.3992*	.882	.000*
		Normal (10.184)	Under weight	-.6509	.411	.254
			Over weight	-6.0501*	.848	.000*
		Overweight (16.234)	Under weight	5.3992*	.882	.000*
			Normal	6.0501*	.848	.000*

***. The mean difference is significant at the .05 level.**

The pair wise comparison of Eating Attitudes on Table 5 shows that, eating attitudes differs among Underweight with Overweight (MD=5.3992), Normal with Overweight (MD=6.0501) and no differences were seen with Underweight with Normal.The graphical representation of the mean score of Eating Attitude among Regions, and BMI Class were presented below in Figure 2 and 3.

Figure. 2
Estimated marginal means of mean score of Eating Attitudes on region

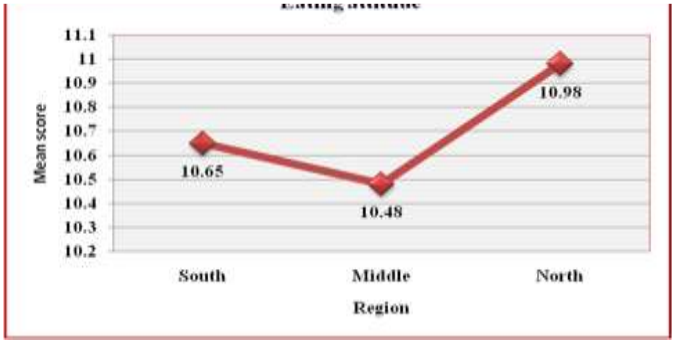
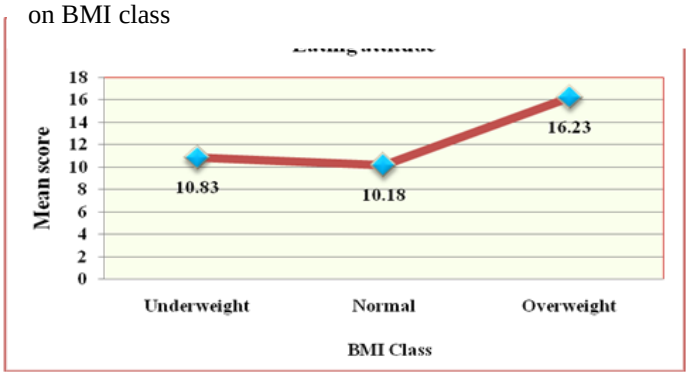


Figure 3
Estimated marginal means of mean score of Eating Attitudes on BMI class



Conclusions

Results of the present study shows that no significant difference prevails in food intake attitude on region. A similar study conducted [16]**,** claimed that regional differences found in appearance concerns support the notion that modern societies are more likely to foster eating disorders in women. Body Mass Index related with disturbed eating attitudes. Mean EAT scores were 10.83 for underweight females, 10.18 for normal weight females, and 16.23 for overweight females. The present study, BMI Classes differ significantly on Eating attitudes (F = 8.722, p<.000) which parallels the study by [7] that, elevated BMI has been strongly associated with disturbed eating attitudes.A direct link was also found in the study [18], between eating attitudes and BMI as having a higher weight was linked to disturbed eating habits. In another female adolescent sample a

potential link was found between disordered eating attitudes and being overweight [12].In the EAT test a higher mean score represent more depressed eating behaviours. [8] states that in an adult sample, physical size was not the best indicator of disturbed eating attitudes. Of course, this relationship may exist for females of all BMI scores, but it could be particularly important in understanding why women who are already close to society's ideal would engage in disordered eating behaviors in an attempt to lose weight [13] states that, a large sample of student females across all BMI categories were found to experience a high drive for thinness, suggesting that women's eating attitudes are influenced by a desire to be thinner.

References

1. **Agras, W.S., Kraemer, H.C., Berkowitz, R.I., Hammer, L.D.(1995).** Influence of early feeding style on adiposity at 6 years of age. *J Pediatr.* 116(5), 805–809.
2. **Alvarenga M., Scagliusi, F.B., Philippi, P.** (2012).Comparison of eating attitudes among university students from the five Brazilian regions. *IenSaude Colet*. 17(2), 435-44.
3. **Ashok, kalaivani, C. &Karunanidhi, S.** (2012). Prevalence of disordered eating among young female college students, *Journal of Indian Health Psychology,* 6 (2), 95-112.
4. **Button, E. J. (1990).** Self-esteem in girls aged 11–12: Baseline findings from a planned prospective study of vulnerability to eating disorders. *Journal of Adolescence*, 13, 407– 413.
5. **Candy, C. M., & Fee, V. E. (1998).** Underlying dimensions and psychometric properties of the eating behaviors and body image test for preadolescent girls. *Journal of Clinical Child Psychology*, 27, 117-127.
6. **Cash, T.F., Counts, B., & Huffine, C.E. (1990).** Current and vestigial effects of overweight among women: Fear of fat, attitudinal body image, and eating behaviors. *Journal of Psychopathology and Behavioral Assessment*, 12, 157-167.
7. **Chugh R & Puri S. (2001).** Affluent adolescent girls of Delhi: eating and weight concerns**.** *British Journal of Nutrition,* 86(4), 535-42.
8. **Edman & Yates (2004),** Eating attitudes among college students in Malaysia: An ethnic and gender comparison, *European Eating Disorders Review* 12(3):190 – 196.
9. **Garner, Rosen and Barry (1998)**, Eating disorders among athletes, *Child Adolescent Psychiatric Clinics North America*.,7(4):839-57.
10. **Garrow, J.S. & Webster, J., 1985**. Quetelet's index (W/H2) as a measure of fatness. *Int. J. Obes*., 9(2), pp.147–153
11. **Harris, S. (1994).** Racial differences as predictors of college women's body image attitudes. *Women and Health*, 21, 89-104.
12. **Jiegen Yu &Mi Lu, L.** (2015). Prevalence of disordered eating attitudes among University students in Wuhu, China. *Nutrition Hospital*, 32(4), 1752-1757.
13. **Jinhee Woo, J**. (2014). A survey of overweight, body shape perception and eating attitude of Korean female university students. *Exercise Nutrition* 18(3), 287-292
14. **Jones, J. M., Bennett, S., Olmsted, M. P., Lawson, M. L., & Rodin, G. (2001).** Disordered eating attitudes and behaviors in teenaged girls: A school-based study. *Canadian Medical Association Journal*, 165, 547–552.
15. **Kenny,D&Adams,R.(1994).**The Relationship between Eating Attitudes, Body Mass Index, Age, and Gender in Australian University Students. *Australian Psychological Society*,29(2), 128–134.
16. **Lee & Lee (2000),** Disordered eating in Three communities of China: A Comparative Study of Female High School Students in Hong Kong, Shenzhen, and Rural Hunan, *International Journal of Eating Disorders*, 27(3):317-27.
17. **Lynch, D P Heil, E Wagner &M D Havens (2007),** Ethnic difference in BMI, Weight concerns and Eating behaviors: Comparison of Native American, White and Hispanic adolescents, *Body Image* 4(2),179-190.
18. **Pike & Dunne.(2015).** The rise of eating disorders in Asia: a review.*Journal of Eating Disorders*, 3, 33.
19. **Sangeeta, C. S. (2013).**Obesity Assessment Based on BMI in the Young Adults of Haryana- A State of India. *Research Journal of Recent Sciences,* 2,304-307.
20. **Srinivasan, T.N., Suresh,T.R., Vasatha,J.&Peter,M.F. (1995).** Eating Disorders in India. *Indian Journal of Psychiatry*, 37(1), 26-30.
21. **Unnithan, A. &Syamakumari, S.** (2007). Prevalence of Overweight, Obesity and Underweight among School Going Children in Rural and Urban areas of Thiruvananthapuram Educational District, Kerala State (India).*The Internet Journal of Nutrition and Wellness*, 6, 2.
22. **Vander Wal, J. S., & Thomas, N. (2004*).***Predictors of body image dissatisfaction and disturbed eating attitudes and behaviours in African American and Hispanic girls. *Eating Behaviors,* 5, 191-301.
23. **Winett, & Davy, (2008**) Weight gain prevention: identifying theory-based targets for health behavior change in young adults, *Journal of the Academy of Nutrition and Dietetics*, 108(10):1708-1715.

