



WEIGHT MANAGEMENT PRACTICES AMONG TERTIARY STUDENTS IN SELECTED INSTITUTIONS IN SAGNARIGU MUNICIPAL OF THE NORTHERN REGION

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ABSTRACT

This study was undertaken to investigate the weight management practices among tertiary students in selected institutions in Sagnarigu Municipal of the Northern Region. A survey research design was used for the study. The target population comprised of students in some tertiary institutions of the Sagnarigu municipality. Two hundred and fifty (250) respondents from Tamale College of Education, Bagabaga College of Education and Tamale Technical University participated in this exercise and the sample size was calculated based on prevalence of obesity/overweight. A convenience sampling technique was used in order to meet sample size requirement within the stipulated data collection period. A total of 121 (48.4%) females and 129 (51.6%) of males were involved in the study. Questionnaire was the instrument for data collection. Data were analyzed using IBM SPSS version 20. The study found out that majority (55.6%) of the respondents perceived themselves to have a normal weight, Social media was one of the factors that influence student's bodyweight perception. It was concluded that most of the students had no knowledge of their weight. Forty-seven percent (47%) of them were actually terrified about their current weight. The mean BMI was 23.9kg/m² indicating that the sample had normal weight. Almost half (49.2 %) wanted to maintain their weight to regulate their bodyweight. The recommendation was that school authorities should put appropriate measures in place to promote and increase physical activities in their various institutions

KEY WORDS: *Body mass index, weight management practices, weight problems, dieting, exercising, under-weight.*

INTRODUCTION

Weight related issues refer to the presence of additional amounts of fat in the body (obese) or inadequate body fat referred to as underweight or Weight management is very vital for humans with weight issues because failure to control body weight could result in health situations that have an effect on people bodily [1]. Weight management is not approximately weight loss most effective but it covers all elements of accomplishing and retaining foremost weight. This is accomplished by using dropping weight within the case of obese or weight problems, and

gaining weight inside the case of underweight. Weight problems, either underweight or over wright are related to increase mortality relative to everyday weight type [2]. From the inception, weight problems has a life time effect due to the fact that weight problems are associated with an accelerated number of harmful life that affect grownup excessively [3].

Weight management strategies are activities such as dieting and exercising that individuals choose to engage in with the ultimate hope of reaching weight related goals [4]. There is a need for weight management especially for people with weight



problems, as untreated weight problems can lead to health disorders that negatively affect different spheres of an individual's life [5]. Weight management can help to address physical problems (physical impairment), psychological problems (restore positive regard for oneself) social problems (engage in social activities), and economic problems (decrease health care costs). Weight management strategies refer to the behaviours an individual engages in as an attempt to lose, gain or maintain weight [6]. These behaviours can range from being healthy to unhealthy, and even life-threatening. Healthy weight control behaviours could include following a low-fat diet and exercising. Unhealthy behaviours could include self-induced vomiting, overuse of laxatives, and skipping meals. According to [7] one of the unhealthiest weight management strategies include not eating any food for significant periods of time and skipping meals intentionally as this slows down the body's normal metabolic activity. In this instant, temporal weight loss occurs, but with the reversion to old eating habits weight regains are inevitable and at times larger than before (this is termed weight cycling). Author [8] identified the three major weight management strategies as physical activity, dieting, and lifestyle modifications. Even though making lifestyle modifications (changes in diet coupled with physical activity and a strong psychosocial support system to enable behavioral changes) is recommended since it is a holistic approach to weight management. Author [9] reports that how a young person perceives weight reflects on their weight management behaviour and they recorded no significant relationship between weight perception and the type of weight management behaviour employed by participants.

Weight management is often misinterpreted as suggesting weight loss, whereas it is a process of living a healthy lifestyle in which one engages in healthy strategies in an effort to obtain and maintain a healthy weight. To achieve a healthy weight, people who are overweight would need to lose weight, and those who are underweight would need to gain weight. With this said, the choice to engage in weight management strategies is largely influenced by one's weight perception, accurate detection of a weight problem and one's emotional response to their perceived weight [4]. According to the self-discrepancy theory people are motivated to use weight management strategies to minimize the discrepancy between their perceived weight and desired weight [10]. Weight management strategies are used in an effort to bring one's perceived weight closer to what is seen as the ideal weight, thus ultimately minimizing the emotional discomfort created by this supposed discrepancy.

According to [11], the young female college students in their study were generally unsatisfied with their weight, and the underlying dissatisfaction was due to a discrepancy between their perceived weight and ideal weight. In other words, the female students' perception of their weight was not congruent with or did not reflect the weight or body shape they desired, which left them with feelings of discontent. This sense of dissatisfaction largely influenced their decision and attempts to either loose or gain weight. Their research found a correlation between weight satisfaction/dissatisfaction and weight control behaviours [11]. The study was undertaken to assess the weight management practices among tertiary students in selected institutions in Sagnarigu Municipal of the Northern Region

MATERIALS AND METHODS

A survey research design was used for the study. The study was carried out in some tertiary institutions within the Sagnarigu municipality. The target population comprised of students in some tertiary institutions of the Sagnarigu municipality: Tamale College of Education, Bagabaga College of Education and Tamale Technical University respectively. A convenience sampling technique was used in order to meet sample size requirement within the stipulated data collection period. In all two hundred and fifty (250) students participated in this exercise and the sample size was calculated based on prevalence of obesity/overweight ($P=19\%$). A total number of 121 (48.4%) female and 129 (51.6%) of male respondents were involved in the study. A questionnaire was the data collection tool. The questionnaire was assessed for clarity, length and completeness. The data were collected after ethical clearance was granted by the various selected tertiary institution. Data was entered and analyzed using IBM SPSS version 20. Descriptive statistics was used to describe and analyze gender, age, ethnicity, parents' educational level and other socio-demographic characteristics. BMI was calculated as weight (Kg) divided by height (m) squared. Participants were classified into in to 4 groups according to WHO guidelines as follows: underweight (BMI less than 18.5kg/m^2), normal weight (BMI $18.5 - 24.90\text{kg/m}^2$), overweight (BMI $25.00 - 29.00\text{kg/m}^2$), and obese (BMI greater than 30.00kg/m^2). Evaluation of BMI and respondents perceived weight was done. Also, evaluation of weight perception with respect to nutritional status was done.

RESULTS AND DISCUSSION

This study seeks to find out the various weight managements practices of students in the study sample



based on the results as indicated in Table 1. Almost half (49.2 %) wanted to maintain their weight. Also, 26.8% respondents engaged in exercise to lose weight and 14.8% wanted to eat more to gain weight. Very few

people (7.7%) dieted to lose weight. In addition to the above, 78.4% of the respondents did not refrain from eating for the past 24 hours during the last 30 days to avoid increasing their body weight.

Table 1 Percentage distribution of weight management practices

Variables	Frequency (N)	Percentage (%)
Exercise to loses weight	67	26.8
Diet to lose weight	18	7.2
Vomit to lose weight	3	1.3
Take diet pill to lose weight	2	0.8
Eat more to gain weight	37	14.8
Did not do anything	123	49.2
Refrain from eating for 24 hours during the last 30 days		
1. Yes	54	21.6
2. No	196	78.4

Source: field survey, 2019

Perceived bodyweight and weight management practice in this study is one objective in our study as shown in Table 2. How a person perceives him/herself may predict the kind of weight management practice they engage in whether healthy or unhealthy weight management behavior. Twenty-four (24) and eleven (11) people respectively wanted to gain and maintain their weight; however, five (5) people wanted to lose their weights. 68 of those who perceived themselves as

normal weight wanted to maintain their weight while 28 people wanted to gain weight. Among those who considered themselves to be overweight, 7 people wanted to lose weight and 6 of them wanted to maintain their weights.

Table 2 Distribution of body weight perception and weight management practice (What are you trying to do about your bodyweight?)

Weight Perception	Strategies adopted as weight management practice			
	Not trying to do anything	Maintain weight	Lose weight	Gain weight
Underweight	4.0	11.0	5.0	24.8
Normal	24.0	68.0	19.0	28.0
Overweight/obesity	1.0	6.0	7.0	2.0
Do not know	14	8.0	14.0	15.0

Source: field survey, 2019

Table 3 show results of the respondents' weight perception and what they did within the last 30 days as a means to regulate their bodyweight. Among the respondents who considered themselves as underweight, 16 people did not actually do anything to regulate their weight status while 14 people decided to eat more to gain weight. However, 13 people also dieted as a means to regulate their weight status. Also,

69 people of those who perceived themselves as normal weight did not actually do anything to regulate their weight status. Forty-two (42) people engaged in exercise to lose weight and only 19 people ate more to gain weight. Among those who considered themselves to be overweight, 7 people wanted lose weight and 6 of them wanted to maintain their weights.



Table 3 Frequency distribution of perceived bodyweight and weight management Practices

During the last 30 days, did you do any of the following?						
Weight Perception	Exercise to lose weight	Diet to lose Weight	Vomit or take laxatives	Take diet pills	Eat more to gain weight	Did not do Anything
Underweight	9.0	13.0	0.0	2.0	14	16.0
Normal	42.0	8.0	1.0	0.0	19.0	69.0
Overweight/obesity	4.0	4.0	1.0	0.0	0.0	7.0
Do not know	12.0	3.0	1.0	0.0	4.0	31.0

Source: field survey, 2019

Table 4 presents the relationship between perceived bodyweight and weight management practices in the study sample. Also, this result indicates the respondents' weight perception and what they did during the last 30 days to regulate their bodyweight. Among the respondents who considered themselves as normal, 29 of them refrained from eating for 24 hours

and 110 of them did not refrain from eating for 24 hours. For respondents who perceived themselves as overweight or obese, 4 of them refrained from eating while 12 of them did not refrain from eating for 24 hours.

Table 4 Distribution by perceived bodyweight and weight management practices

During the last 30 days, did you refrain from eating for 24 hours?		
Weight Perception	Yes	No
Underweight	7.0	37.0
Normal	29.0	110.0
Overweight/obese	4.0	12.0
Do not know	14.0	37.0

Source: field survey, 2019

DISCUSSION

This study demonstrated that almost half (49.2%) of students in the Sagnarigu municipality wanted to maintain their weight hence did not do anything about their weight. According to [12] the two main components that influence weight control behaviour are one's perception and satisfaction with one's weight. Also, from the study, most of the students had accurate body weight perception which resulted in healthy weight management practices (who exercise to lose weight, diet to lose weight or avoid gaining weight). Seventy-eight percent (78.4%) did not refrain from eating for the pass 24 hours or did not skip meals for 24 hours. To achieve a healthy weight, people who are overweight would need to lose weight, and those who are underweight would need to gain weight. With this said, the choice to engage in weight management strategies is largely influenced by one's weight perception, accurate detection of a weight problem and one's emotional response to their perceived weight [4].

The study also revealed that most of respondents in the Sagnarigu municipality wanted to maintain their weight and therefore, healthy weight management practices or behaviors were practiced. This indicates that making a decision to engage in weight management strategies is directly influenced by one's weight perception. Most students in our research area had accurate weight perception which reflects positive weight management which changed their current weight status. The correlation between weight perception and weight management strategies could potentially speak to how, based on their perception, the participants would choose to engage in various weight management strategies. The motivation or reason behind the type of weight management strategy chosen is still not clear, however, each type of strategy may yield different results for the individual in question.

In comparison to the normal weight, underweight, overweight or obese and do not know classification categories, there were fewer people in this study who were actually overweight or obese,



underweight and do not know. But many of them were trying to lose weight. This highlights an important idea that individuals' decision to lose weight or maintain their weight is largely based on their perceived weight. Author [13] found that for many of their participants, children and adults, their weight perception were directly associated with their decision to attempt weight loss, irrespective of their actual weight status. In knowing this, attempts to lose weight may be necessary but not utilized or unnecessary and dangerous. As found in many other studies, weight perception has a significant influence on weight management strategies [14]; [15]. Individuals who are overweight but do not perceive themselves as such are dubious to participate in weight control practices such as diet or exercise [16]. A study conducted by [17], revealed that extra respondents underestimated their weight and this can be a barrier to have interaction in appropriate life-style modification. To efficiently control weight problems and decrease attendant morbidity and mortality, there must be an accurate self-perception of weight via people [18]. The results of the present study indicate that students had an accurate body weight perception which leads to practicing healthy weight management behaviours in Sagnarigu municipality.

CONCLUSION

From the study, the population surveyed were found to have an accurate perception about underweight, overweight or obese people by identifying them as not being healthy and being physical inactive. Social media was the leading factor that influenced student's bodyweight perception while most students had no knowledge of their weight. Forty-seven percent (47%) of the students were actually terrified about their current weight. The study also revealed that most of respondents in the Sagnarigu municipality wanted to maintain their weight and therefore, healthy weight management practices or behaviors were practiced. This indicates that making a decision to engage in weight management strategies is directly influenced by one's weight perception.

RECOMMENDATION

School authorities should put appropriate measures in place to promote and increase physical activities in their various institutions

REFERENCES

1. Cameron AJ, Magleano DJ, Dunstan DW, Zimmet PZ, Hesketh K, Peeters A, Shaw JE. (2011). A bi-directional relationship between obesity and health related quality of life. *International Journal of Obesity advance online publication. doi:10.1038/ijo.2011.103.*
2. Felgal KM, Graubard BI, Williamson DF, Gail MH. (2005). Excess death associated with underweight, overweight, and obesity. *JAMA* 293: 18961-1867.
3. Visscher TLS, Rissanen A, Seidell JC, Heliövarra M, Knett P, Reunanen A, Aromaa A. (2004). Obesity and unhealthy life years in adult Finn An empirical approach. *Arch Intern Med.*; 164: 1413-1420
4. Olubukola, R. O., & Olubukola, O. O. (2012). Perception of weight and weight management practices among students of a tertiary institution in south west Nigeria. *Journal of Applied Pharmaceutical Science*, 2 (1), 81-84
5. Ogunjimi LO, Ikorok MM, Olayinka YO (2010). Prevalence of obesity among Nigeria nurses: The Akwa Ibom state experience. *International NGO Journal* vol5 (2), pp.045-049
6. Vartanian, L. R. (2012). Self-discrepancy theory and body Image. *Encyclopedia of Body Image and Human Appearance*, 2, 711-717.
7. Malinauskas BM, Raedeke TD, Aeby VG, Smith JL, Dallas MB. Dieting practices, weight perceptions, and body composition: a comparison of normal weight, overweight, and obese college females. *Nutr J*. 2006;5(1):1-7.
8. Sijtsema S. Transforming health perception into food product characteristics in consumer oriented product design [Ph.D. thesis] Van Wageningen University; 2003
9. Sirang Z, Bashir HH, Jalil B, Khan SH, Hussain SA, et al. (2013). Weight patterns and perceptions among female university students of Karachi: a cross sectional study. *BMC Public Health*; 13(1):230-7.
10. Vartanian, L. R. (2012). Self-discrepancy theory and body Image. *Encyclopedia of Body Image and Human Appearance*, 2, 711-717
11. Wardle, J. J., Haase, A. M., & Steptoe, A. A. (2006). Body image and weight control in young adults: International comparisons in university students from 22 countries. *International Journal of Obesity*, 30(4), 644-651.
12. Alfermann, D., & Stoll, O. (2000). Effects of physical exercise on self-concept and well-being. *International Journal of Sport Psychology*, 30, 47-65.
13. [13] Swaminathan, S., Selvam, S., Pauline, M., & Vaz, M. (2013). Associations between body weight perception and weight control behaviour in South Indian children: A cross-sectional study. *British Medical Journal*, 3, 1-8
14. Szabo, C. P., & Allwood, C. W. (2006). Body figure preference in South African adolescent females: A cross-cultural study. *African Health Sciences*, 6(4), 201-206
15. Wharton, C. M., Adams, T., & Hampl, J. S. (2008). Weight loss practices and body weight perceptions



- among US College Students. *Journal of American College Health*, 56(5), 579-584
16. Yan AF, Zhang G, Wang M.O, Stoeson CA, Harris BM. (2009). *Weight perception and weight control practice in a multiethnic sample of US adolescents. South Med J* 2009; 102(4) 354-360
 17. Barrett S.C & Huffman F.G. (2011). *Comparison of self-perceived weight and desired weight versus actual body mass index among adolescents in Jamaica. Rev, Panam Salud Publication*, 29(4): 267-276
 18. Brener N.D, Eaton D.K, Lowry R, McManus T (2004). *The association between weight perception and BMI among high school students. Obesity Research*, 12(11):1866–1874.