

WEIGHT MANAGEMENT STRATEGIES AMONG STUDENTS OF UNIVERSITY OF ILORIN, ILORIN KWARA STATE

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ABSTRACT

Weight management strategies are activities such as dieting and exercising that individual choose to engage in with the ultimate hope of reaching weight related goals such as increase or reduction in weight. These strategies include physical activities, diet, surgery and pharmacotherapy (use of drugs). Descriptive research design was used for this study. The population comprised undergraduate students of the university of Ilorin, Ilorin, kwara State. Stratified sampling technique was used to select 6 faculties in the university namely Faculty of Education, Veterinary Medicine, Social Science, Art, Environmental Science, and Pharmaceutical Science. Purposive sampling technique was used to select respondent from the 6 faculties while simple random technique was used to select 10% of population from each faculty. The instrument for the study was a self-structure of questionnaire. The findings revealed that- Diet, Physical Activities, and Pharmacotherapy (use of drugs) were significantly perceived among the students of university of Ilorin, Ilorin, Kwara state. It is recommended that students should be encouraged to consume nutritional diet and also participate in physical activities to improve weight management, they should also be enlightened on the effects of surgery (both positive and negative) and positive including use of drugs (both stimulate and depressants drugs) in order to maintain weight.

Keywords: Weight, management, strategies.

1. INTRODUCTION

The manner in which individuals perceive their weight has great bearing on their actual weight, weight-management strategies and psychological well-being. Research has shown that the prevalence of weight-related problems has significantly increased over the years (Phetla, & Skaal, 2017). This is supported by the growing number of people reported to be suffering from conditions such as diabetes and chronic fatigue syndrome that is precipitated by the individual's unhealthy body-weight status. It is an epidemic of enormous proportions, which is associated with both physical problems such as hypertension as well as the psychological problems associated with weight, such as depression and anxiety. Evidence has also suggested that in most cases there is a discrepancy between an individual's perceived weight and their actual weight. This implies that individuals' perception of their weight does not necessarily correspond with their actual body mass index, because they either over-estimate or under-estimate their actual weight. Many young people have a tendency to be concerned about their physical appearance and undertake practices in order to achieve certain body ideals. There is however limited information from developing countries on the weight perceptions of emerging adults (i.e., individuals leaving the adolescent stage and preparing to

take on adulthood) and whether these opinions influence their nutritional status and weight management practices (Phetla & Skaal, 2017).

Body weight is a significant determinant of health and disease both obesity and underweight have been associated with disease. In Nigeria, there is a disturbing trend towards increasing adiposity (Tremblay & Wilms, 2002). In developing countries, this has been attributed to the so called nutritional transition. Public health campaigns to increase exercise levels and to reduce caloric intake have been initiated in many countries both at the local and national level (Tremblay and Wilms, 2002). Care must be taken to ensure that in such endeavors to reduce overweight and obese levels a realistic and healthy body weight is the goal of such campaigns. This is particularly important in order to avoid an increase in weight anxiety and restrained eating with an increase in the number of campaigns aimed at increasing exercise levels and reducing excessive food intake. According to Vartanian (2012) weight Management is a procedure which is done to neutralize extra weight in the body. It is mainly done through various weight loss programmes that are guided and organized by organizations. It is mainly done by guiding people and their family to lead a healthy life through healthy dietary intake and regular physical exercise. furthermore, Weight management is the phrase used to describe both the techniques and underlying physiological processes that contribute to a person's ability to attain and maintain a certain weight. Most weight management techniques encompass long-term lifestyle strategies that promote healthy eating and daily physical activity. Moreover, weight management involves developing meaningful ways to track weight over time and to identify ideal body weights for different individuals.

Weight management strategies refer to the behaviors that an individual engages in as an attempt to lose, gain or maintain weight. These behaviors can range from being healthy to unhealthy, and even life-threatening (Vartanian, 2012). Healthy weight control behaviors could include following a low fat diet and exercising. Unhealthy behaviors could include self-induced vomiting, overuse of laxatives, and skipping meals. weight management strategy is a long-term approach to a healthy lifestyle. It includes a balance of healthy eating and physical exercise to equate energy expenditure and energy intake. Developing healthy eating habits while using tips that will keep us fuller longer can be useful tools in weight management. Weight management strategies focuses on the long-term results that are achieved through slow weight loss, followed by retention of an ideal body weight for age, sex and height (Vartanian, 2012). Weight management programs may be divided into two phases: weight loss and weight maintenance. While exercise may be the most important element of a weight-maintenance program. Proper weight management strategies most often focus on achieving healthy weights through slow but steady weight loss, followed by maintenance of an ideal body weight over time.

Putterman and Linden (2004), asserted that different reasons for weight management lead to different means of weight management strategies which ultimately result in different outcomes and consequences. For example, a person who is looking to adopt a healthier lifestyle, compared to someone who is looking for a short-term crash diet, will manage their weight-loss strategies differently. A healthier life style requires an individual to follow a balanced eating plan and engage in regular exercise, whereas a crash diet is mostly simply focused on restricting calories and limiting food intake. Persons on a crash diet may witness changes in their weight much more quickly than people trying to adopt a healthier lifestyle. Faster results generally require means that tend to be unhealthy and people who resort to such means often tend to regain the weight lost, which is not usually the case when a healthier lifestyle is adopted. A balanced lifestyle is believed to be beneficial and helps your body to function at its optimal capacity; whereas a crash diet, due to its restricted nutritional value, can lead to malnutrition and decreased functioning (Rao, 2011).

Success in the promotion of weight loss can sometimes be achieved with the use of drugs (pharmacotherapy). Almost all prescription drugs in current use cause weight loss by

suppressing appetite or enhancing satiety (Merali, 2006). One drug, however, promotes weight loss by inhibiting fat digestion. To sustain weight loss, these drugs must be taken on a continuing basis; when their use is discontinued, some or all of the lost weight is typically regained. Therefore, when drugs are effective, it is expected that their use will continue indefinitely. For maximum benefit and safety, the use of weight-loss drugs should occur only in the context of a comprehensive weight-loss program. In general, these drugs can induce a 5- to 10-percent mean drop in body weight within 6 months of treatment initiation, but the effect can be larger or smaller depending on the individual. As with any drug, the occurrence of side effects may exclude their use in certain occupational contexts (Sadock, Sadock & Ruiz, 2015).

Quantity of food and drink consumed by an individual plays a very important role in weight management. Additionally, the types of food and drink a person consumes are also very important to weight management (Papadaki, Hondros, Scott & Kapsokefalou, 2004). Not only is it important to eat a well-balanced diet in order to get the proper amount of vitamins and nutrients each day to prevent illness, but it is also important to be aware that certain qualities of foods and drinks (for example: energy density, palatability, sugar content) can have profound effects on weight by affecting hunger and satiety in different ways. For example, sugary drinks like sodas are very palatable and contain a significant number of calories but do little to affect satiety. In other words, consuming sugary drinks does not help get rid of hunger but still adds many calories to a person's diet which can lead to overeating, positive energy balance, and weight gain.

Physical activity is one of the main components of a person's daily energy expenditure. Physical activity can be broken down into the following types, they are; Work/occupation related physical activity, Exercise related physical activity, Non-work and non-exercise related physical activity (activities of daily living) (Butler & Gretebeck, 2004). It is important to remain physically active in all three domains listed above in order to maintain a healthy weight and avoid developing non-communicable diseases like diabetes, heart disease and dyslipidemia (high cholesterol). It may be difficult to be physically active in every area of a person's life, due to things like occupation, physical fitness level and living environment, but increasing physical activity whenever possible can help offset times of inactivity and can lead to better weight management and overall health (Butler & Gretebeck, 2004).

Kesaniemi and Danforth (2001) affirmed that increased physical activity is an essential component of a comprehensive weight-reduction strategy for overweight adults who are otherwise healthy. One of the best predictors of success in the long-term management of overweight and obesity is the ability to develop and sustain an exercise programme. For a given individual, the intensity, duration, frequency, and type of physical activity will depend on existing medical conditions, degree of previous activity, physical limitations, and individual preferences. Referral for additional professional evaluation may be appropriate, especially for individuals with more than one of the above extenuating factors. The benefits of physical activity are significant and occur even in the absence of weight loss (Kesaniemi & Danforth, 2001).

Body weight problems can take the form of either an excess amount of body fat for an individual's height or physique (referred to as being overweight or obese), or an insufficient amount of body fat (referred to as being underweight). Both conditions are unhealthy and sometimes life threatening (Olubukola, & Olubukola, 2012). Added to these problems is the concern for individuals' emotional wellbeing, because many overweight and underweight people alike are said to be extremely unhappy with their body for various reasons. In the psychological spectrum of disorders, there is also the possibility of people having a distorted perception of their weight in the sense of perceiving themselves as having normal

weight whereas they are actually overweight, which then increases their risk of experiencing emotional difficulties (Mogre, Mwinlenna, & Oladele, 2013).

The researcher has observed that there was an increasing number of overweight students among undergraduate students of University of Ilorin. Obesity is a public health problem because of its prevalence, literature also indicated that as a solution to this problem, a number of weight management strategies are being implemented globally. Some of these weight management strategies have been found to be ineffective and replete with adverse consequences that are sometimes fatal. It is therefore important that individuals have accurate information about weight management strategies and their consequences. Thus this research examined students perception of their body weight is related to their weight management strategies (which includes eating and exercising patterns). This research provides an avenue in understanding and addressing problems related to body weight and shape. This study is therefore examined weight management strategies among students of University of Ilorin. The following hypotheses were tested in this study

2. METHODS AND MATERIALS

2.1 Research Design and Participants

The research design for this study was descriptive research survey. The population of this study was undergraduate student of University of Ilorin. According to the annual report of academic session 2019-2020, the total number of undergraduate students in University of Ilorin were 45,832 (forty-five thousand, eight hundred and thirty-two).

Stratified, simple random techniques were adopted for this study. Stratified sampling technique was used to select 6 faculties out of 15 faculties in University of Ilorin, the faculties selected include; Faculty of Education, Veterinary Medicine, Art, Pharmaceutical Science, Social Science, and Environmental Science. Purposeful sampling technique was used to select all the final year students in the six (6) faculties selected. Furthermore, simple random sampling technique was used to select 10% of population from each faculty. This was to ensure equal opportunity for all the departments under each faculty. Two hundred and twenty-two (222) respondents were used for the study. Following is the details of sample population.

Sample of respondents in each faculty

S.N.	Faculty	No. of final year Students	Sample Selected 10%
1.	Education	996	100
2.	Veterinary Medicine	64	6
3.	Art	363	36
4.	Pharmaceutical Science	197	20
5.	Social Science	302	30
6.	Environmental Science	298	30
	Total	2220	222

2.2 Research Instrument

The research instrument for this study was a self-structured questionnaire tagged Weight Management Strategies Scale (WMSS). The research instrument consists of two sections (A and B). Section A consists of demographic information of respondent while section B contains information on weight management strategies among students of university of Ilorin. The questionnaire is close ended constructed on a four point Likert rating scale of Strongly agree (SA)=1, Agree(A)=2, Disagree(D)=3, Strongly disagree (SD)=4.

The instrument was validated by three (3) experts in Department of Human Kinetics Education, University of Ilorin. Suggestions made by the experts were used to improve the quality of the research instrument. The reliability of the instrument was established using test re-test method by administering the questionnaire to twenty (20) final year undergraduates in

University of Ilorin, outside the study area within interval of one week. The response collected was put to statistical analysis to determine if the two responses correlate with one another. The result of the first administration was compared with the result of the second administration using Pearson Product Moment Correlation (PPMC) statistic. A correlation coefficient of 0.72 r was obtained.

2.3 Data Collection

In order to access the respondents, the consent of each respondent was sought and they were assured of confidentiality of their responses. The copies of the questionnaire were administered to the respondents with the help of three (3) research assistants. The completed copies of questionnaire were collected at the spot.

2.4 Data Analysis

The data obtained from the researcher designed questionnaire was subjected to Inferential and descriptive statistics. Frequency and percentage was used to analyze demographic information of the respondents, while inferential statistic of chi-square was used to test the stated hypotheses at 0.05 alpha level.

3. RESULTS

Table 1: Frequency distribution of the respondents by gender, age range, faculty

Variables	Frequency	Percentage (%)
Gender		
Male	101	45.5
Female	121	54.5
Total	222	100
Age-range		
16-19yrs	36	16.2
20-23yrs	99	44.6
24yrs & Above	87	39.2
Total	222	100
Faculty		
Education	100	45.0
Vet. Medicine	6	2.7
Art	37	16.7
Pharmaceutical Science	20	9.0
Social Science	30	13.5
Environmental Science	29	13.1
Total	222	100
400	166	74.8
500	49	22.1
600	7	3.2
Total	222	100

Table 1 presents the frequency distribution of the respondents that participated in the study. It was revealed that 222 respondents, 121 (54.5%) were female while 101 respondents with (45.5%) were male. This signifies that majority of the respondents were female. Also, the age of the respondents shows that 99 respondents (44.6%) were in the range of 20-23 years, 87 respondents (39.2%) were 24years and above, 36 respondents (16.2%) were between 16-19years. This connotes that majority of the respondents were between 20 -23years.

Also, 100 respondents (45%) were from Faculty of education, 37 respondents (16.7%) were from faculty of Art, 30 respondents (13.5%) were from Social Science, 29 respondents

(13.1%) where from Environmental Science, 20 of the respondents (9.0%) were from pharmaceutical Science, and 6 respondents (2.7%) were from vet. Medicine, this revealed that majority of the respondents were from faculty of Education, then, 166 respondents (74.8%) were 400 Level students, 49 respondents (22.1%) were 500 level while 7 respondents (3.2%) were 600 level students this revealed that the majority of the respondents were 400 Level students.

Table 2: Chi-square results of Diet as an effective weight management skill among students of university of Ilorin, Ilorin Kwara State

Items	Row Total	df	Cal. Value	Critical Value	Sig.
4	222	9	32.914	16.919	.000

@ 0.05 alpha level.

Table 2 revealed that the calculated chi-square value was 32.914 while the *p*-value is .000 with a degree of freedom of 9 at 0.05 alpha level, which indicates that Diet have significant influence on weight management among students of university of Ilorin, Ilorin, Kwara State.

Table 3: Chi-square results of Physical activities as an effective weight management skill among students of university of Ilorin, Ilorin Kwara state

Items	Row Total	df	Cal. Value	Critical Value	Sig.
4	222	9	49.959	16.919	.000

@ 0.05 alpha level.

Table 3 revealed that the calculated chi-square value was 49.959, critical value was 16.919 while the *p*-value is .000 with degree of freedom of 9 at 0.05 alpha level, which indicated that physical activities have significant influence on weight management among students of university of Ilorin, Ilorin Kwara state.

Table 4: Chi-square results of Use of surgery as an effective weight management skill among students of university of Ilorin, Ilorin Kwara state.

Items	Row Total	df	Cal. Value	Critical Value	Sig.
4	222	9	106.320	16.919	.000

@ 0.05 alpha level.

Table 4 revealed that the calculated chi-square value was 106.320, critical value was 16.919 while the *p*-value is .000 with degree of freedom of 9 at 0.05 alpha level which indicated that use of surgery have significant influence on weight management among students of university of Ilorin, Ilorin Kwara State.

Table 5: Chi-square results of Pharmacotherapy as an effective weight management skill among students of university of Ilorin, Ilorin Kwara State

Items	Row Total	df	Cal. Value	Critical Value	Sig.
4	222	9	69.613	16.919	.000

@ 0.05 alpha level.

Table 5 revealed that the chi-square value was 69.613 while 16.919 is the critical value while the *p*-value is .000 with degree of freedom of 9 at 0.05 alpha level which indicated that pharmacotherapy have significant influence on weight management among students of university of Ilorin, Ilorin Kwara State.

4. DISCUSSION

Hypothesis one stated that Diet will not be significantly perceived as an effective weight management among students of university of Ilorin, Ilorin Kwara state. The findings in table six revealed that diet will have significant influence on weight management among students of university of Ilorin, Ilorin Kwara State. A diet based on the Pyramid is easily adapted from the foods served in group settings, including military bases, since all that is required is to eat smaller portions. Even with smaller portions, it is not difficult to obtain adequate quantities of the other essential nutrients. The U.S. Food and Drug Administration (FDA) recommends such diets as the “standard treatment” for clinical trials of new weight-loss drugs, to be used by both the active agent group and the placebo group (FDA, 1996). A number of studies have evaluated long-term weight maintenance using meal replacement, either self-managed (Flechtner 2000; Rothacker, 2000), with active dietary counseling, or with behavior modification programs (Ashley, Ditschuneit & Flechtner-Mors, 2001) compared with traditional calorie-restricted diet plans.

The largest amount of weight loss occurred early in the studies (about the first 3 months of the plan) (Ditschuneit et al., 1999; Heber et al., 1994). One study found that women lost more weight between the third and sixth months of the plan, but men lost most of their weight by the third month (Heber et al., 1994). All of the studies resulted in maintenance of significant weight loss after 2 to 5 years of follow-up. Hill's (2000) review of Rothacker (2000) pointed out that the group receiving meal replacements maintained a small, yet significant, weight loss over the 5-year program, whereas the control group gained a significant amount of weight.

Hypothesis two stated that physical activities will not be significantly perceived as an effective weight management among students of university of Ilorin, Ilorin Kwara State. The finding further revealed that physical activities significantly influence weight management among students of university of Ilorin, Ilorin Kwara State. This signify sated that the activity goal has been expressed as an increase in energy expenditure of 1,000 kcal/wk (Jakicic, 1999; Pate, 1995), although this quantity may be insufficient to prevent weight regain. For that purpose, a weekly goal of 2,000 to 3,000 kcal of added activity may be necessary (Klem & Schoeller, 1997).

Thus, mental preparation for the amount of activity necessary to maintain weight loss must begin while losing weight (Brownell, 1999). For many individuals, changing activity levels is perceived as more unpleasant than changing dietary habits. Breaking up a 30-minute daily exercise “prescription” into 10-minute bouts has been shown to increase compliance over that of longer bouts. However, over an 18-month period, individuals who performed short bouts of physical activity did not experience improvements in long-term weight loss, cardio-respiratory fitness, or physical activity participation in comparison with those who performed longer bouts of exercise. Some evidence suggests that home exercise equipment (e.g., a treadmill) increases the likelihood of regular exercise and is associated with greater long-term weight loss.

In addition, individual preferences are paramount considerations in choices of activity. When strength training or resistance exercise is combined with aerobic activity, long-term results may be better than those with aerobics alone (Poirier & Despres, 2001). Since strength training tends to build muscle, loss of lean body mass may be minimized and the relative loss of body fat may be increased. An added benefit is the attenuation of the decrease in resting metabolic rate associated with weight loss, possibly as a consequence of preserving or enhancing lean body mass. As valuable as exercise is, the existing research literature on overweight individuals indicates that exercise programs alone do not produce significant weight loss in the populations studied.

Hypothesis three stated that use of surgery will not be significantly perceived as an effective weight management among students of university of Ilorin, Ilorin Kwara state. The findings in table eight indicated that use of surgery will have significant influence on weight management among students of university of Ilorin, Ilorin Kwara state. This finds Some of the adverse consequences of these surgical treatments include excess skin, mood disorders, eating disorders, maladaptive eating patterns and extended recovery difficulties (Ames, Patel, Ames, & Lynch, 2009). In a society which seems to struggle with delayed gratification, weight-loss surgery has become one of the quickest and most successful weight-loss strategies. Despite its promise of instantaneous weight loss the risks are high and dangerous (Rao, Burke, Spring & Ewing, 2011).

Weight-loss surgery can sometimes be a bluff as it addresses the problem on a very superficial and the lack of weight maintenance after the surgery can result in regaining the weight lost. It also does not address the deeper emotional and psychological difficulties that possibly caused the initial weight gain (Ames, Patel, Ames and Lynch, 2009). For example, people who engage in comfort eating are at greater risk of regaining their weight after surgery if the reason why they used food as a stress reliever and a source of emotional nurturance is not addressed.

Hypothesis four stated that pharmacotherapy will not be significantly perceived as an effective weight management among students of university of Ilorin, Ilorin Kwara State. The table nine revealed that pharmacotherapy will have significant influence on weight management among students of university of Ilorin, Ilorin Kwara State. This finding stated that success in the promotion of weight loss can sometimes be achieved with the use of drugs. Almost all prescription drugs in current use cause weight loss by suppressing appetite or enhancing satiety. One drug, however, promotes weight loss by inhibiting fat digestion. To sustain weight loss, these drugs must be taken on a continuing basis; when their use is discontinued, some or all of the lost weight is typically regained. Success in the promotion of weight loss can sometimes be achieved with the use of drugs(pharmacotherapy). Almost all prescription drugs in current use cause weight loss by suppressing appetite or enhancing satiety (Merali, 2006).

Therefore, when drugs are effective, it is expected that their use will continue indefinitely. For maximum benefit and safety, the use of weight-loss drugs should occur only in the context of a comprehensive weight-loss programme. In general, these drugs can induce a 5- to 10-percent mean drop in body weight within 6 months of treatment initiation, but the effect can be larger or smaller depending on the individual. As with any drug, the occurrence of side effects may exclude their use in certain occupational contexts (Sadock, Sadock & Ruiz, 2015).

5. CONCLUSION

Based on the findings of this study reached to the following conclusions -

- Diet has significant influence on weight management strategies among students of university if Ilorin, Ilorin, kwara state.
- Physical activities have significant influence on weight management strategies among students of university of Ilorin, Ilorin, kwara state.
- Pharmacotherapy has significant influence on weight management strategies among students of university of Ilorin, Ilorin, kwara state.

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