

WEIGHT-CONTROL PRACTICES OF ATHLETES OF UNIVERSITY OF NIGERIA, NSUKKA

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ABSTRACT

The objective of the study was to determine the weight-control practices of athletes of University of Nigeria, Nsukka. Specifically, the study investigated the weight-gain as well as the weight-loss practices of the athletes. A descriptive cross-sectional survey design was adopted in carrying out the study. Three hundred and fifty-two (352) athletes who formed the entire athlete population in the university constituted the sample for the study. A validated structured questionnaire was used for data collection. Pearson product moment correlation in conjunction with Spearman-Brown prophecy statistics was utilized to establish reliability of the instrument. A reliability co-efficient of .83 was obtained. Two hundred and twenty seven out of 352 copies of administered questionnaire were returned giving a return rate of 64.49 per cent. 162 out of 227 copies of returned questionnaire were properly filled and used for analysis. Generated data were analyzed using percentages in the Statistical Packages of Social Sciences – SPSS Batch system. The findings of the study revealed that majority of the athletes never adopt healthy weight-gain (53.20%) and weight-loss practices (58.95%). Also, majority of the respondents adopt unhealthy weight-gain (81.59%) and weight-loss practices (61.36%). Based on the findings it was concluded that athletes of University of Nigeria, Nsukka adopt unhealthy weight control practices.

Keywords: Athletes, weight-loss, weight-gain, weight-control, and practices

INTRODUCTION

Every athlete has weight. An athlete, according to Uzoalor and Okafor (1993), is one trained to compete in athletics and games. Athlete's weight depends substantially on the proportion of his or her body fat and mass. Hornby (2001) viewed weight as how heavy somebody or something is which can be measured in kilograms or pounds. Extreme weight in the form of over-weight or under-weight is not desirable and has implications for health and in the case of athletes affects performance. This later implications of over-weight necessitates weight-control among athletes. Weight-control is the act of gaining, losing or maintaining one's weight. Hence, weight-control involves weight-gain, weight-loss or maintenance of one's weight. Reginald, et al. (2005) stated that children and adolescents are often involved in sports in which weight loss or weight gain is perceived as an advantage.

Perriello (2001) noted that most athletes who want to lose weight are motivated by a desire for improved appearance, better performance, or perceived competitive advantage. He further emphasized that the drive to compete can encourage athletes to lose weight, whether or not they have excessive body fat. In an attempt to lose weight and body fat or gain weight and muscle mass, some athletes resort to unhealthy weight-control practices (Ashley et al., 1996; Brownell & Rodin, 1992; Perriello, 2001).

Athletes used unhealthy weight-loss methods such as voluntary dehydration (Gisolfi&Duchman, 1992; Reginald et al., 2005); food restriction and over-exercising (Johnson, 1994; Reginald et al., 2005); and vomiting, using rubber suits, steam baths or saunas, using anorexic drugs, laxatives, diuretics, diet pills, and nutritional supplements (Reginald et al., 2005). However, the healthy weight-loss methods include decrease in energy or calories intake; increase in calories expenditure (Reginald et al., 2005; Smith & Roberts, 1976; Smith, 1976), and increase fluid intake (Periello, 2001). There are also strategies for gaining weight some of which could be harmful or healthful.

The potentially harmful weight-gain strategies adopted by middle school and junior high students in Texas, according to LuAnn-Soliah, et al. (2003), include use of prescription drugs, nutritional

supplements, excessive food consumption or purposeful over-eating, and sedentary living. Notwithstanding, the healthy weight-gain methods include increased energy or calories intake; decreased calories expenditure (Reginald et al., 2005; Smith & Roberts, 1976) adequate strength training programme; adequate rest and balanced diet (Reginald et al., 2005; Grandjean, 1999). Athletes in University of Nigeria, Nsukka like their counterparts in other parts of the world cannot be exempted from weight-control practices.

Attempt by athletes to lose weight to improve performance or meet weight expectations of their sport(s) can have serious consequences. Mountain and Coyle (1993); Brownell and Rodin (1992) and Perriello (2001) warned that the practices can impair athletic performance, increase injury risk and medical complications such as delayed physical maturation; oligomenorrhea and amenorrhea in female athletes; development of eating disorders; potential permanent growth impairment; increased incidence of infectious diseases; changes in the cardiovascular, endocrine, gastrointestinal, renal, and thermoregulatory systems, and depression. The need for intervention to prevent athletes especially University of Nigeria, Nsukka athletes from suffering these medical complications necessitated the present study, which aimed at establishing the athletes' weight-control practices. Specifically, the study sought to:

- determine the healthy weight-gain practices of athletes of University of Nigeria, Nsukka;
- ascertain the unhealthy weight-gain practices of the athletes;
- establish the healthy weight-loss practices of the athletes; and
- determine the unhealthy weight-loss practices of the athletes.

METHODS

A descriptive cross-sectional survey design was employed in the study. The population for the study was three hundred and fifty-two athletes and at the same time constituted the sample for the study. The entire population was used for the study since it is small and manageable. This is in line with Elendu's (2010) assertion that it is appropriate to study the entire population rather than sample when the entire population under study is small and manageable. Hence, there was no sampling. A validated structured questionnaire was used for data collection. Split-half method was used after administering twenty copies of the questionnaire to athletes of University of Port Harcourt, Rivers State. Pearson product moment correlation in conjunction with Spearman-Brown prophecy statistic was used to establish reliability co-efficient of .83 for the instrument. Hence, the questionnaire was considered reliable for the study. 352 copies of the questionnaire were administered and 227 copies were returned giving a return rate of 64.49 per cent. Only 162 out of the 227 returned copies of the questionnaire were properly filled and used for analysis. Percentage in the Statistical Packages of Social Sciences was used to analyze the generated data.

Data Presentation

Table 1. Healthy Weight-Gain Practices of the Athletes (N = 162)

<i>Practices</i>	<i>Yes</i>		<i>No</i>	
	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
Increase consumption of calories	140	86.42	22	13.58
Increase fluid intake	56	34.57	106	65.43
Participation in weight training programme	38	23.45	124	76.55
Adequate rest	28	17.28	134	82.72
Balanced diet	76	49.91	86	50.09
Decrease expenditure of calories	112	69.14	50	30.86
Cluster %		46.80		53.20

Source: Survey Data, 2009.

Table 1 showed that 140 (86.42%) of the athletes increased their consumption of calories, and 112 (69.14%) of them decreased their expenditure of calories to gain weight. It is evident in the table that 124 representing 76.55 per cent of the athletes and 134 (82.72%) of them never participated in weight training programme, and used adequate rest, respectively, to gain weight.

Table 2. Unhealthy Weight-Gain Practices Adopted by the Athletes (N = 162)

<i>Practices</i>	<i>Yes</i>		<i>No</i>	
	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
Use of drugs	122	72.31	40	27.69
Use of nutritional supplements	135	82.33	27	17.67
Excessive food consumption	146	90.12	16	9.88
Cluster %		81.59		18.41

Source: Survey Data, 2009.

Table 2 revealed that 122 (72.31%) of the athletes used drugs, and 135 (82.33%) of them used nutritional supplements to gain weight. Also, 146 representing 90.12 per cent of the athletes consumed excessive food to gain weight.

Table 3. Healthy Weight-Loss Practices of the Athletes (N = 162)

<i>Practices</i>	<i>Yes</i>		<i>No</i>	
	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
Decrease consumption of calories	49	30.25	113	69.75
Increase expenditure of calories through exercise	84	51.85	78	48.15
Cluster %		41.05		58.95

Source: Survey Data, 2009.

Table 3 showed that 113 (69.75%) of the athletes never decreased their consumption calories, and 84 (51.85%) of them increased expenditure of calories through exercise to lose weight.

Table 4. Unhealthy Weight-Loss Practices of the Athletes (N = 162)

<i>Practices</i>	<i>Yes</i>		<i>No</i>	
	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
Food restriction	152	93.83	10	6.17
Over-exercising	102	62.96	60	37.04
Use of drugs	121	74.69	41	25.31
Use of nutritional supplements	86	53.09	76	46.91
Voluntary fluid reduction or dehydration	36	22.22	126	77.78
Use of steam baths or saunas	0	0	162	100
Cluster %		61.36		38.64

Source: Survey Data, 2009.

Table 4 revealed that 152 (93.83%) of the respondents adopted food restriction; 102 (62.96%) of them over-exercised, and 121 (74.69%) of the athletes used drugs, and 36 (22.22%) engaged in voluntary fluid reduction to lose weight. None of the athletes use steam baths or saunas to lose weight.

DISCUSSION

The finding that majority (53.20%) of the athletes never adopted the healthy weight-gain methods was not surprising. This is because the athletes may see the healthy weight-gain methods to be unrealistic and time-consuming. They may seek for faster means of gaining weight irrespective of whether it is healthy or not. The finding is in line with the report by Reginald, et al. (2005) that often athletes use potentially harmful methods such as supplements or anabolic compounds to gain weight instead of evaluating their nutritional and training programmes. On another hand, they may not be aware of the harmful effects of such unhealthy weight gain practices.

It was not surprising that majority (81.59%) of the athletes adopted unhealthy weight-gain methods. The finding is in disagreement with LuAnn-Soliah, et al. (2003) who reported that not many of the students used inappropriate and potentially harmful weight-gain strategies. The finding, however, disagreed with Sansone and Sawyer's (2005) report that minority of athletes engage in unhealthy weight management practices. In the case of Sansone and Sawyer's (2005) finding, it could be that the students under study were not going for any weight-sensitive sports competition unlike the athletes who would use all possible means or strategies to gain weight if their sport requires weight gain. The finding was not surprising because athletes are ready to do anything to meet up with the weight expectation of their sport(s) especially during competition season.

The finding that majority (58.95%) of the students never adopt healthy weight-loss methods was expected. This is because they may see the healthy weight-loss methods to be time-consuming. They would desire immediate effect of any of the weight-loss strategy or strategies, which they have adopted. This possibly led them to adopt the unhealthy weight-loss methods. The finding is in agreement with Brownell and Rodin (1992); Ashley, et al. (1996), and Perriello (2001) who reported that some athletes resort to unhealthy weight-control practices in order lose weight and body fat.

It was found that majority (61.36%) of the athletes adopt unhealthy weight-loss methods. This is in agreement with Maughan and Burke's (2002) report that considerable number of taekwondo athletes do not follow the strategies that are recommended by current sports nutritionists to lose weight. The finding is in disagreement with Sansone and Sawyer (2005) who reported that minority of athletes engage in unhealthy weight management practices. The disagreement could be attributed to possible differences in culture and orientation of the athletes.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions were made.

- a. Majority of the athletes never adopted healthy weight-gain and weight-loss methods.
- b. Majority of the athletes adopted unhealthy weight-gain and weight-loss methods.

Based on the findings and conclusions drawn from the study, the following recommendations were made.

- a. Workshop and seminars should be organized for the athletes on weight management. The danger of unhealthy weight-control practices should be stressed.
- b. Sports nutritionists and dieticians should be attached to athletic teams to monitor and guide athletes on nutrition-based weight management.
- c. A nutrition intervention programme should be designed and mounted for the athletes. The programme should be executed by the university authorities and should adopt peer education strategy.
- d. There should be regular monitoring of athletes and their weight by the sports administrators of the teams.
- e. Stakeholders especially the parents should be communicated on the risks of unhealthy weight-control practices. This will assist them in discouraging their children (athletes) from such practices.
- f. The mass media should always be disseminating information on weight management. They should discourage the unhealthy weight-control practices while emphasizing and encouraging the healthy ones.
- g. The school authorities should formulate and implement policies aimed at discouraging unhealthy weight-control practices among the athletes.

REFERENCES

- Ashley, C. D.; Smith, J. F.; Robinson, J. B., & Richardson, M. T. (1996). Disordered eating in female collegiate athletes and collegiate females in an advanced program of study: A preliminary investigation. *International Journal of Sports Nutrition*, 6: 391 – 401.
- Brownell, K. D., & Rodin, J. (1992). Prevalence of eating disorders in athletes. In K. D. Brownell; J. Rodin, & J. H. Wilmore (Eds.), *Eating, body weight and performance in athletes: Disorders of modern society* (pp. 128 – 145). Philadelphia: Lea & Febiger.
- Elendu, I. C. (2010). *Fundamentals of research and statistics for students in human kinetics and other educational disciplines*. Port Harcourt: The Glory of the Latter House Publishing Company.
- Gisolfi, C. V., & Duchman, S. M. (1992). Guidelines for optimal replacement beverages for different athletic events. *Medical Science Sports Exercise*, 24: 679 – 687.
- Grandjean, A. (1999). Nutritional requirements to increase lean mass. *Clinical Sports Medicine*, 18: 623 – 632.
- Hornby, A. S. (Ed.). (2001). *Oxford advanced learner's dictionary of current English* (special price edition). Oxford: Oxford University Press.
- Johnson, M. D. (1994). Disordered eating in active and athletic women. *Clinical Sports Medicine*, 13: 355 – 369.
- LuAnn-Soliah, R. D.; Jannell-Walter, R. D.; Sunni-Barnes, M. A., & Scott Yeang (2003). Weight gain efforts among middle school and junior high students in selected rural Texas school districts. *Texas Journal of Rural Health*, 21: (2), 20 – 30.
- Maughan, R. J., & Burke, L. M. (2002). *Sports nutrition*. Oxford: Blackwell Publishing Ltd.
- Mountain, S., & Coyle, E. F. (1993). Influence of the timing of fluid ingestion on temperature regulation during exercise. *Journal of Applied Physiology*, 75: 688 – 695.
- Perriello, V. A. (2001). Aiming for healthy weight in wrestlers and other athletes. *Contemporary Pediatrics*, 18: (19), 55 – 74.
- Reginald, L.; David, T.; Joel, S.; Jorge, G.; Thomas, J. M.; Frederick, E. R., & Stephen, G. R. (2005). Promotion of healthy weight-control practices in young athletes. *Pediatrics*, 116: (6), 1557 – 1564.
- Sansone, R.A., & Sawyer, R. (2005). Weight loss pressure on a 5 year old wrestler. *British Journal of Sports Medicine*, 39: (1).
- Smith, N. J. (1976). Gaining and losing weight in athletics. *Journal of American Medical Association*, 236: 149 – 151.
- Smith, N. J., & Roberts, B. W. (1976). *Food for sport*. California: Bull Publishing.
- Uzoalor, E. G., & Okafor, R. (1993). *Physical and health education for junior secondary schools*. Onitsha: Diamond (JMB) Publishers.