

115 - EVALUATION OF BODY COMPOSITION IN CYCLISTS FROM TERESINA.

GUSTAVO SOUSA EVANGELISTA;
 AHÉCIO KLEBER ARAÚJO BRITO;
 DIEGO MORAES DE CARVALHO
 JOELSON DA SILVA MEDEIROS;
 ERIKA GALVÃO FIGUEREDO

Universidade Federal do Piauí, Teresina, Piauí, Brasil
 gustavoevangelista.ef@bol.com.br

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INTRODUCTION

Cycling is among the most followed sports in the world, with a considerable number of cyclists over recent years (Asplund& Ross, 2010). This practice includes not only competitors, but people in general who practice for leisure or as transport (Boyd, et al, 1997). The practice of cycling is an aerobic exercise which uses large muscle groups, especially the lower limbs (KANG, et al, 2005), due to its characteristics, it is considered an efficient exercise to those who want to increase cardiorespiratory fitness, lose weight and to minimize risks of cardiovascular diseases (Mello, 2004).

The body evaluation for athletes and for those which practice physical activity shows values as increase or decrease of aptitude that represent the improvement or no of income (PARIZKOVÁ, 1982). The influenced adaptations by physical activity are exemplified by elite athletes who have extreme values of body composition, differing according to each mode. Athletes of modalities that require the movement of the body itself, as in the case of cycling, has low levels of fat (PARIZKOVÁ, 1982), thus the constitution, composition and body size are essential in the performance of this method, however, it is important to emphasize that genetic factors, although very important in performance, can be influenced by lifestyle such as sedentary, diet and types of exercise (WILLMORE & COSTILL, 2001).

Therefore, the study is justified by showing the current values of studied group body composition. These values are organized, for in the future, be created activities to improve the participants health. The study has as general objective: the body composition of athletes in the cycling group "Pedal Noturno" from Teresina and, as the specific objectives: the perception of health status, questioning why the participants chose the cyclism and listing the perceived benefits to the practice.

METHODOLOGY

This study is descriptive, and according to Richardson (1989), it is characterized by discovering and classifying the relationship among the variables, proposing discovering the phenomenon characteristics. It has a quantitative approach and it is characterized by working with numbers, quantifiable data, both in the collection and in the analysis of data. It is utilized statistical techniques to reach concrete results that do not bring errors misinterpretation, making the study more reliable. (Dalfovo; LANA; Silveira, 2008).

The study sample was made intentionally, composed by 30 people, all aged among 18 and 60 years and participating in "Pedal Noturno" group that performs a path of about 30 km that differ according to the consensus of the group organization, on Tuesdays and Thursdays. It was utilized the following inclusion criteria: to be aged 18 to 60 years and be active practitioner in the "Pedal Noturno" group.

In this study were utilized as research instruments: questionnaire addressing issues related to health, food, frequency, duration of practice, goals and benefits. After the questionnaire was assessed body mass using a portable scale brand "PLENA", a tape measure to the nearest 0.5 cm to stratify the height.

The first procedure to start the search was a formal conversation with the organization of cyclism group "Pedal Noturno". After approval, the sample was chosen intentionally. Two procedures were performed; the first was a questionnaire, then, all tests that relate to body composition. Weight was obtained in a only scan using a portable digital scale the "PLENA" mark with capacity of 150 kg and an accuracy of 0.1 kg. On occasion, the riders were barefoot, wearing light clothing and standing positions. They were conducted to go up in the middle of scale. Height was assessed using a tape code 0.5 cm, fixed on a smooth wall, with barefoot cyclists, with their backs to the wall with feet together and parallel, upright and looking forward. The objective was to ensure the accuracy of the height measurement on the tape measure. It was utilized a ruler that was put on the participants' head to verify the height.

Soon after, the BMI was calculated, whose values allowed us to classify individuals according to WHO data.

B.M.I. – HOWWEIGHT RATING (WORLD HEALTH ORGANIZATION)	
LOW	LESS OF 18,5
ACCEPTABLE OR IDEAL	18,5 TO 24,9
OBESITY LIGHT	25,0 TO 29,9
MODERATE OBESITY	30,0 TO 39,9
SEVERE OBESITY	GREATER OR EQUAL TO 40,0

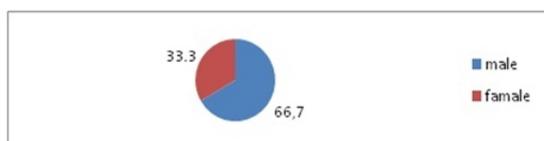
Source: World Health Organization, 1998.

The data were analyzed using Statistical Package for the Social Sciences (SPSS) version 18.0. Descriptive statistics with mean, standard deviation, maximum and minimum for numeric variables and values percentages for nominal variables.

RESULTS

The number of investigated subjects was 30 cyclists, 10 of these are female and 20 were male. All are residents of Teresina city aged between 18 and 60 years.

Graph 01. Distribution by individuals' sex practicing the cycling in group "Pedal Noturno" from Teresina- PI.



Graph prepared by the researcher Source: Lookup

Women represent 33.3% of the subjects while men have a significant number representing 66.7% of the research subjects.

Chart 01. Practitioners' age and anthropometric data of group "Pedal Noturno" from Teresina-Pi

	Age	Height	Weight	BMI	BMI Classification
Average	24,7	1,6952	73,093	25,267	2,63
Deviation	12,263	0,10101	14,4492	3,5293	0,742
Minimum	9	1,49	49,8	20,2	2
Maximum	47	1,85	112,7	33,6	4

Source: Lookup

The chart 01 represents values of ages and demographics data; It starting by the age which all are included in the age group 18-60 years of age, it was obtained the mean age of 24.7 years, ie, the most of practitioners are young which already seek a better quality of life.

In the chart 01 is considered the found values after calculation and classification of BMI which has as references the World Health Organization's criteria (WHO). Upon the classification, the largest number of cyclists is inserted in acceptable profile, representing 50%, shortly thereafter, 37% of the group has the mild obesity. A smaller representation of obesity met 13% of participants, rating moderate obesity. It was not find cyclists in the categories of underweight and severe obesity which represent extreme ratings.

Graph 2. The BMI classification of practitioners ofcycling group "Pedal Noturno" from Teresina-Pi

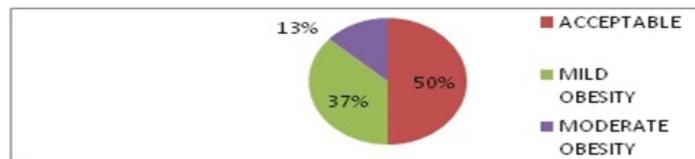


Chart prepared by the researcher. Source: Lookup

The expressed results in the graph 03 show the positive character of the answers related to health given by the respondents. The majority of them, 67%, are classified as "very good", followed by "good" rating which included 17%. In thirdly the "Regular" category with 10% of opinions and with only 6% were classified as "Excellent", thus how Ramos (1997) expressed in his studies where he explains that the perceived of health has been used as an indicator of quality of life, morbidity, and also as good a predictor of mortality.

Graph 03. Perceived of practitioners' health of cycling group "Pedal Noturno" from Teresina-Pi

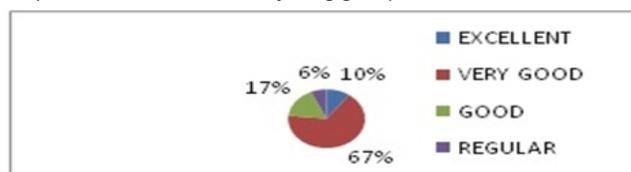


Chart prepared by the researcher. Source: Lookup

The Graph 04's data show the participants' answers when they are questioned about their goals with the practice of cycling. 50% of them emphasize the weight loss, then 40% appears with desire to socialize and finally, 10% of them search the activity to exit from inactivity.

Graph 04. Motivation to the practice of cycling in group "Pedal Noturno" from Teresina-Pi

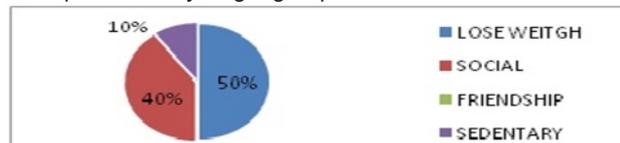


Chart prepared by the researcher. Source: Lookup

After of the listed and selected goals about the individual motivation to the practice of cycling, it was also questioned the main benefits perceived by the participants. The Graph 05 reflects that the benefit for which it was made more options also corresponds to the main goal of the majority of cyclists: to lose weight. These represent 47% of the total. After the weight loss came the cardiorespiratory fitness with 33%. Finally, theclassificationofbettersleepwith 20%.

DISCUSSION

The number of men who practicing cycling is higher than the women. This lowest representation of female sex corresponds to PITANGA's study (2005) where the percentage of women compared to men was also lower when related to sports and leisure. Recent researches from Brazilian Institute of Geography and Statistics (IBGE) show that the growth of the elderly population between 2000 and 2020 will be 81.4% and in 2050 this number will reach 64 million.

The anthropometric data found in the evaluation show the current and configured profile of the evaluated group with some indicators of body composition and therefore health; the average height was 1.69 with deviation of ± 0.10 and weight 73.09 with deviation of ± 14.44. In order to identify the level of health risks of the group participants was calculated body mass index

(BMI), expressed as the relationship between body mass in kg and height in square meters, which is used as an indicator of nutritional status for its good relationship with body mass ($r = 0.80$) and low correlation with height, and it became more widespread after the publication of Must et al (1991) show percentiles values for age and sex.

Obesity, while at higher levels, it becomes more troubling, the Lewington's study (2002), shows that the coronary artery disease risks, heart failure among other, increases with increasing degree of obesity.

Weinberg (2001) states that practitioners of physical activities engage in these activities for several reasons, through methods and different situations. This study corroborates with the author's idea when the author presents different reasons for the practice. An association with the Turner's study (1999) was found when the author says that the human being becomes human when it starts to interact with others.

Before the results, it can be said that this study confirms what is found in previous research, for example, the quote where WHO says that 150 minutes of exercise a week is enough to provide health benefits. However, this time is insufficient to alter body composition. It is necessary to change to 200 to 300 min for weight loss in obese people. (Guimarães, Ciolac 2004 apud ALMEIDA; PIRES, 2008).

CONCLUSION

It can be concluded that the cycling group "Pedal Noturno" is a heterogeneous group and even with its particularities, it is in a good state of health, showing as base the anthropometric data and answered questionnaires according to the participants routine. The indices that show predisposition are used as indicators of health after to be assessed and it does not show extreme values as "thinness" or "severe obesity".

For later studies, it is suggested to increase samples and also groups of cycling, once that this modality has expanded in recent years. It is also suggested that comparative studies become more visible the benefits that this modality can provide to those who chose practice it.

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Rua Francisca de Melo Lobo 355 Saci
Teresina / PI. 64020-190

EVALUATION OF BODY COMPOSITION IN CYCLISTS FROM TERESINA.

ABSTRACT

The practice of physical activity reduces the risk of health problems in the short and long term. Among the practices, cycling is on the rise. The present study aimed to evaluate the body composition of athletes in the cycling group "Pedal Noturno" from Teresina- PI. This is a quantitative and descriptive study. It was assessed 30 adult participants aged 18-60 years, where this sample was chosen intentionally. There was a measurement of weight and height and then it was calculated the body mass index (BMI), in addition, a questionnaire for investigation of health perception, reason and perceived benefits of the practice was applied. It was obtained as a result a large number of cyclists inserted in the classification of BMI acceptable / ideal, as health perceptions, the majority considered themselves in a good condition and with regard to the benefits provided by cycling, weight reduction is the most cited in the literature of aerobic activities which provide this action but also improves the cardiorespiratory system and the quality of life of these individuals. It can be concluded by the end of the study that the cyclism group "Pedal Noturno" is a heterogeneous group, with ideal body composition, showing a good awareness of health status.

KEYWORDS: Cycling, Body Composition, Health.

ÉVALUATION DE LA COMPOSITION CORPORELLE CHEZ LES CYCLISTES DE TERESINA.

RÉSUMÉ

La pratique de l'activité physique réduit le risque de problèmes de santé à court et à long terme. Parmi les pratiques, le vélo est en augmentation. Cette étude visait à évaluer la composition corporelle des athlètes du groupe de vélo "Pedal Noturno" de Teresina- PI. Ceci est une étude descriptive et quantitative. Nous avons évalué 30 participants adultes âgés de 18-60 ans, où l'échantillon a été choisi intentionnellement. Il y avait une mesure du poids et de la hauteur, puis l'indice de masse corporelle (IMC), également un questionnaire à la recherche de la perception de la santé, de la raison, et les avantages perçus de la pratique a été appliquée a été calculé. Un grand nombre de cyclistes insérés dans l'indice de classement masse corporelle acceptable / idéal a été obtenu à la suite, car la perception de la santé, la plupart se considéraient en bonne condition et en ce qui concerne les prestations prévues par le cyclisme la réduction de poids est le plus souvent cité dans la littérature des activités aérobies qui assurent cette action, mais améliore également le système cardio-respiratoire et la qualité de vie de ces personnes. Il peut être conclu d'ici la fin de l'étude, le vélo de groupe "Pedal Noturno" est un groupe hétérogène, avec la composition du corps idéal, montrant une bonne compréhension de la santé.

MOTS-CLÉS: Vélo, la composition corporelle, la santé.

EVALUACIÓN DE LA COMPOSICIÓN CORPORAL EN CICLISTAS DE TERESINA.

RESUMEN

La práctica de la actividad física reduce el riesgo de problemas de salud en el corto y largo plazo. Entre las prácticas, el ciclismo está en aumento. El presente estudio tuvo como objetivo evaluar la composición corporal de los atletas en el grupo de ciclismo "Pedal Noturno" de Teresina- PI. Se trata de un estudio cuantitativo y descriptivo. Se evaluó a 30 participantes adultos de 18-60 años, donde la muestra se eligió intencionalmente. Hubo una medida de peso y altura y luego se calculó el índice de masa corporal (IMC), además, se aplicó un cuestionario para la investigación de la percepción de la salud, la razón y beneficios percibidos de la práctica. Se obtuvo como resultado un gran número de ciclistas insertados en la clasificación del índice de masa corporal aceptable / ideal, ya que la percepción de la salud, la mayoría consideraban a sí mismos en un buen estado y con respecto a los beneficios proporcionados por el ciclismo, la reducción de peso es el más citado en la literatura de las actividades aeróbicas que proporcionan esta acción sino que también mejora el sistema cardiorrespiratorio y la calidad de vida de estas personas. Se puede concluir por el final del estudio que el grupo de ciclismo "Pedal Noturno" es un grupo heterogéneo, con composición corporal ideal, mostrando un buen conocimiento del estado de salud.

PALABRAS CLAVE: Ciclismo, la composición corporal, la salud.

AVALIAÇÃO DA COMPOSIÇÃO CORPORAL EM PRATICANTES DE CICLISMO EM TERESINA.

RESUMO

A prática de atividade física reduz o risco com problemas de saúde a curto e a longo prazo. Dentre as práticas, o ciclismo está em ascensão independente da modalidade. O objetivo do presente estudo foi avaliar a composição corporal de atletas do grupo de Ciclismo Pedal Noturno Teresina. Trata-se de um estudo de caráter quantitativo e descritivo. Participaram do estudo 30 adultos com idades entre 18 a 60 anos, onde essa amostra foi escolhida de forma intencional. Verificou-se medidas de peso e altura e posteriormente calculou-se o índice de massa corporal (IMC), além disso, foi aplicado um questionário para investigação da percepção de saúde, motivo da prática e benefícios percebidos. Obteve-se como resultado um maior número de ciclistas inseridos na classificação de IMC aceitável/ideal, quanto à percepção de saúde a maioria se considerou com um bom estado de saúde e no que diz respeito aos benefícios proporcionados pelo ciclismo, a redução de peso é o mais citado, visto que na literatura as práticas de atividades aeróbicas proporcionam diretamente essa ação como também melhora no sistema cardiorrespiratório e na qualidade de vida dos praticantes. Pode-se concluir ao final do estudo que o grupo de ciclista Pedal Noturno trata-se de um grupo heterogêneo, com composição corporal ideal e apresentando uma boa percepção do estado de saúde.

PALAVRAS CHAVES: ciclismo, composição corporal, saúde.,