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BODY SELF-PERCEPTION AND THE CONSUMPTION OF ERGONOMIC RESOURCES BY ACADEMIC FREQUENTERS

AUTOPERCEPÇÃO CORPORAL E O CONSUMO DE RECURSOS ERGÔGENICOS POR FREQUENTADORES DE ACADEMIA

AUTO PERCEPCIÓN CORPORAL Y EL CONSUMO DE RECURSOS ERGÓGENICOS POR FREQUENTADORES DE GIMNASIO

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ABSTRACT

Objective: to characterize the profile of bodybuilders regarding the use of ergogenic resources and to relate it to body self perception. **Method:** a quantitative, cross-sectional study carried out at two-city fitness centers in Minas Gerais with structured interviews using a questionnaire and the set of silhouettes. The analysis was by the Statistical Package for Social Sciences (SPSS15.0), General Linear Model of repeated measures and Pearson's correlation. **Results:** the practice of bodybuilding, in both sexes, was due to improved health. Most said they perform physical activities and consume supplements without medical or nutritional guidance. The most commonly used is the protein, being that men consume more, compared to women. **Conclusion:** there was no evidence of self-image changes related to the use of supplements, despite the lack of orientation. **Descriptors:** Self image; Anabolics; Dietary Supplements; Health Promotion. Nursing.

RESUMO

Objetivo: caracterizar o perfil de praticantes de musculação quanto ao uso de recursos ergogênicos e relacioná-lo à autopercepção corporal. *Método*: estudo quantitativo, transversal, realizado em academias de musculação de duas cidades de Minas Gerais com entrevistas estruturadas utilizando um questionário e o conjunto de silhuetas. A análise foi pelo Statistical Package for Social Sciences (SPSS15.0), General Linear Model de medidas repetidas e a correlação de Pearson. *Resultados*: a prática de musculação, em ambos os sexos, foi pela melhora da saúde. A maioria afirmou que realiza as atividades físicas e consome suplementos sem orientação médica ou nutricional. O mais utilizado é o de proteínas, sendo que os homens consomem mais em relação às mulheres. *Conclusão*: não houve evidências de alterações de autoimagem relacionadas ao uso de suplementos, apesar da falta de orientação. *Descritores*: Autoimagem; Anabolizantes; Suplementos nutricionais; Promoção da Saúde; Enfermagem.

RESUMEN

Objetivo: caracterizar el perfil de practicantes de musculación en cuanto al uso de recursos ergogénicos y relacionarlo al auto percepción corporal. *Método*: estudio cuantitativo, transversal, realizado en gimnasios de musculación de dos ciudades de Minas Gerais con entrevistas estructuradas utilizando un cuestionario y el conjunto de siluetas. El análisis fue por el Statistical Package for Social Sciences (SPSS15.0), General Linear Model de medidas repetidas y la correlación de Pearson. *Resultados*: la práctica de musculación, en ambos sexos, fue por la mejora de la salud. La mayoría afirmó que realizan las actividades físicas y consumen suplementos sin orientación médica o nutricional. El más utilizado es el de proteínas, y los hombres consumen más en relación a las mujeres. *Conclusión*: no hubo evidencias de alteraciones de autoimagen relacionadas al uso de suplementos, a pesar de la falta de orientación. *Descriptores*: Autoimagen; Anabolizantes; Suplementos Dietéticos; Promoción de la Salud; Enfermería.

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INTRODUCTION

People seek practical and efficient ways to get the ideal body and, thus, resort to ergogenic resources (dietary supplements and anabolic steroids) without the accompaniment of a proper health professional. However, unguided use can have a number of consequences, especially on bodybuilders, who are influenced and pressured by aesthetic standards, physical conditioning and social status.¹

Men and women who find themselves in bodybuilding centers have a high degree of dissatisfaction with the actual body image. Although women still present, as a beauty standard, "thinness", that has been dictated for some years by the media and society, this distortion of body image has also affected men, who say that they want a more "strong and muscular body".²

Pressure for an idealized body may induce erroneous practices with the use of Anabolic Steroids (AS)³ and Food Supplements (FS).

The use of AS may cause various effects such as hormonal changes, liver diseases, sexual impotence, cardiac arrhythmia, baldness, prostate cancer, kidney overload and the development of male characteristics. The use of FS may generate effects such as increased appetite, excessive sweating, excessive urinary elimination and thirst, insomnia, tachycardia, diarrhea and muscle pain. 5

The use of AS is controversial and most often done in a camouflaged way. However, the use of FS has been seen as beneficial, especially among athletes. However, only 5% of sales are aimed at athletes.

It is known that the indication about the consumption of these compounds, adequately, is still very deficient, making difficult their quantification and, therefore, the knowledge of the real extension of the problem.

It is questioned whether the consumption of ergogenic resources without orientation is related to the body self-perception. Inadequate use of steroids and dietary supplements is believed to be linked to the perception of self-image of bodybuilding practitioners influenced by aesthetic standards, improved fitness, and social status.

This is, thus, a public health problem. The search for social, economic, educational and environmental transformation is the most

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characteristic attribution of health promotion.⁸ Nurses must take this knowledge and act as an incentive for actions that promote health⁸, to other health professionals and physical education while respecting professional assignments.

When considering the complexity of the use of FS and AS, this study aims to contribute to enhance the involvement of nurses in the approach and care. It is evident that it is necessary to include this theme in the training of nurses, in order to equip them for their work with the prevention of health problems and it is essential to involve health services, class organs and institutions higher education in the qualification of Nursing professionals for a committed and competent performance.

OBJECTIVES

- To characterize the profile of bodybuilders regarding the use of ergogenic resources and to relate it to body self-perception.
- To investigate the characteristics associated with the practice of physical activity and the consumption of ergogenic resources.

METHOD

A quantitative, cross-sectional study performed in a gym, with bodybuilders, in two cities in the interior of Minas Gerais considered as small and with similar socioeconomic characteristics. 9

Academic visitors were included for the same month, over 18 years old, who accepted to participate in the study and signed the Free and Informed Consent Term (FICT). Those under 18 years of age were excluded, as well as those who did not consent to participate in the survey or who did not attend the gym for at least one month.

A structured questionnaire-type instrument, built by the authors and validated by specialists, was used.

To evaluate the body self-image, the set of silhouettes was used.¹¹

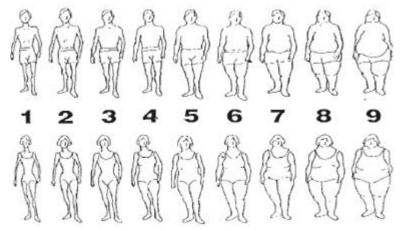


Figure 1. Silhouette analysis tool proposed by Stunkard, Sorenson and Schlusinger (1983).

The set of silhouettes was shown to individuals and the following questions were asked: Which silhouette best represents your physical appearance these days? What is the silhouette you would like to have? To verify the body dissatisfaction, the difference between the current silhouette and the ideal silhouette, pointed by the individual, was used. The researcher did not give any opinion on the choice of silhouettes.

The definitions adopted for this study on the ergogenic resources were: Food supplements: those consisting of, at least, one of these ingredients: vitamins (A, C, Complex B, etc.); minerals Fe, Ca, K, Zn, etc.); botanicals and herbs (ginseng, guarana powder); metabolites (L carnitine creatine); extracts (beer yeast) amino acids (BCAA, arginine, glutamine, ornithine); extracts (beer yeast) or combinations of the above ingredients and anabolic steroids (those

compounds that use synthetic derivatives of testosterone). 12

The data were typed in a spreadsheet, double typed, and analyzed in the Statistical Package for Social Sciences (SPSS15.0) program. The tests used were the General Linear Model (GLM) of repeated measurements and the Pearson correlation. The respective calculated effect sizes were the square partial eta (hp²) and the Pearson correlation coefficient (r).

The research project was approved by the owners of the academies and by the Research Ethics Committee (CAAE: 49533915.8.0000.5137) and followed all the guidelines of Resolution 466/12.¹⁰

RESULTS

One hundred bodybuilders were interviewed, being 36 women and 64 men (Table 1):

Table 1. Variables on the time, motive and orientation on the practice of bodybuilding according to gender. Minas Gerais (MG), Brazil, 2016. (n = 100)

Variables	r. Minas Gerais (MG), I		en (n=36)		n (n=64)	Total
	Fundamental	1	2.78	3	4.69	4
	Medium	19	52.78	38	59.38	57
Teaching	Higher	9	25.00	15	23.44	24
	Technician	7	19.44	8	12.50	15
	Total	36	100	64	100	100
	Up to 1 year	26	72.22	41	64.06	67
م مناه الله منا الله م	Above 1 year	9	25.00	23	35.94	32
Bodybuilding time	No report	1	2.78	-	-	-
cillie	Total	36	100	64	100	100
	Cheers	28	77.78	37	57.8	65
	Rehabilitation	18	50.00	34	53.1	52
	Quality of life	5	13.89	19	29.7	24
Reason to	Hypertrophy	5	13.89	12	18.8	17
practice bodybuilding*	Aesthetics	4	11.11	11	17.2	15
bodybuilding	Resistance	2	5.56	3	4.7	5
	Others	16	44.44	-	-	16
	No report	1	2.78	2	3.1	3
	No	21	58.33	46	71.9	67
Madian auidense	Yes	15	41.67	16	25.0	31
Medical guidance	No report	-	-	2	3.1	2
	Total	36	100	64	100	100

^{*} Participants could mark more than one alternative

Of the total, 19 (52.78%) women and 38 (59.38%) men had attended high school.

They practiced bodybuilding for less than a year: 26 (72.22%) of the women and 41 (64.06%) of the men, being the practice seeking health in 28 (77.78%) of the women

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and 37 (57, 8%) of the men. In the second option rehabilitation, there were 18 (50%) of the women and 34 (53.1%) men. More than half of the participants had no professional orientation, being 21 (58.33%) women and 46 (71.9%) men.

Table 2. Variables gender, schooling, motivation, and use of supplements and anabolics according to current and desired body self-perception. Minas Gerais (MG), Brazil, 2016. (n = 100)

Variables		Current body	Desired body			
		Average(standard	Average (standard			
		deviation)	deviation)			
Sex	Female	4.12 (1.83)	3.33 (1.77)			
	Male	3.29 (2.03)	3.09 (1.46)			
	Total	3.60 (1.99)	3.18 (1.58)			
Education	Elementary	4.18 (2.92)	4.00 (2.56)			
	Highschool	3.54 (1.92)	3.28 (1.45)			
	Higher	3.17 (1.52)	2.65 (1.30)			
	education					
	Technical	4.08 (2.02)	3.08 (1.16)			
	Total	3.60 (1.99)	3.18 (1.58)			
Motivation	Health	3.84 (2.27)	3.04 (1.42)			
	Aesthetics	2.77(1.98)	3.77 (1.48)			
	Both	3.77 (1.56)	3.20 (1.79)			
	Total	3.60 (1.99)	3.18 (1.58)			
Consumption of	Yes	2.92 (1.42)	3.30 (1.75)			
suplements	No	4.27 (2.26)	3.02(1.42)			
	Total	3.61 (2.00)	3.16 (1.59)			
Anabolic	Yes	2.42 (3.46)	3.14 (1.95)			
consumption	No	3.36 (2.00)	3.07(1.61)			
	Total	3.36 (1.98)	3.08 (1.63)			

The mean of current body scores among women was 4.12 (sd: 1.83) and the desired was 3.33 (SD: 1.77). Among men, the mean was 3.29 (sd: 2.03) for the current and 3.18 (sd: 1.58) for the desired.

In relation to schooling, the lowest difference between the means of the scores between the current and the desired body was between those with elementary education.

Among the motivations for the practice of physical activity, the difference between the current body (mean: 2.77 and sd: 1.98) and the desired body (mean: 3.77 and sd: 1.48) was significant among those who did for aesthetics.

The mean scores also increased among those who used FS: current body (mean: 2.92 and sd: 1.42) and desired body (mean 3.30 and sd: 1.75).

As for those using AS, the mean scores among those using FS were current body (mean: 2.42 and sd: 3.46) and desired body (mean: 3.14 and sd: 1.95).

There was no statistically significant effect of sex (F (1.86) = 1.361, p = 0.247, \Box 2 = 0.04), schooling (F (3.84) = 0.369, p = 0.766, 01) and

use of anabolic agents in the variation of body perception (F (1,70) = 1,339, p = 0,251, $\square 2 = 0,02$).

A trend of statistically relevant effect of the type of motivation on the variation of the body perception was observed (F (2.85) = 2.430, p = 0.094, \Box 2 = 0.05). However, post hoc tests did not identify possible differences, despite observing a future preference in the increase of the body mass of people who had an exclusively esthetic motivation, in relation to a decrease of the mass in the other groups. An increase in the sample may help to improve the observation of these differences. A statistically significant effect of the use of supplements on the variation of the body perception (F (1,84) = 7,461, p = 0.001, =2 =0.15) was also observed, though people who use supplements believe on average to be below of expected body mass, while those who do not use, on average, believe they are above what they would like.

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Table 3. Variables regarding age, weight, BMI and desired body mass. Minas Gerais (MG), Brazil, 2016. (n = 100)

Variables		Age			Weight		BMI		D€	Desired Mc		
	r	р	n	r	р	n	r	р	n	r	р	n
Age	1		100	.129	.202	99	.224	.027	98	.303	.004	88
Weight	.129	.202	99	1		99	.794	.000	98	- .432	.000	88
BMI	.224	.027	98	.794	.000	98	1		98	- .508	.000	87
Desired Mc	- .303	.004	88	- .432	.000	88	- .508	.000	87	1		88

r: Absolute frequency

p: Standard deviation n: Number of people

(R = -0.303, p <0.001), weight (r = -0.432, p <0.001) and BMI (r = -0.508, p <0.001) were found to be negative correlations between mean body mass, and the greater the age,

weight or BMI, the lower the desired body mass, with a perspective of reduction in body measurements.

Table 4. Variables on the use of ergogenic resources and self-perception according to gender. Minas Gerais (MG), Brazil, 2016. (n = 100)

	Variables	riables			Men	Total	
ĺ	Know ergogenic	Supplements	9	25	39	56.25	48
	features *	Steroids	1	2.77	7	10.93	8
		No report	8	22.78	12	33.33	20
	Importance of	Yes	13	36.11	45	70.3	58
	associating the use of	No	14	38.89	12	18.8	26
	physical activity	No report	9	25.00	6	9.4	15
	supplements	Total	36	100.00	64	100.0	100
	Indication of use of	Salesman	-	-	6	9.4	6
	supplements *	Friends	5	13.89	18	28.1	23
		TV, Magazines	-	-	3	4.7	2
		Nutritionist	-	-	3	4.7	3
		Doctor	-	-	3	4.7	3
		Physical educator	4	11.11	-	-	4
	Types of supplements	Proteins	3	8.33	34	53.1	37
	used *	Thermogenics	2	5.56	4	6.3	6
		Supplements that replace meals	2	5.56	4	6.3	6
		Carbohydrates	2	5.56	13	20.3	15
		Others	-	-	2	3.1	2
		Never used	17	47.22	15	23.4	32
		No report	1	2.78	8	12.5	9
	Indication of the use	Magazine	2	5.41	2	2.99	4
	of anabolic steroids *	Internet	6	16.22	11	16.42	17
		Supplement Stores	1	2.70	2	2.99	3
		Friends	6	16.22	25	37.31	31
		Others	4	10.81	5	7.46	9
		No reply	18	48.65	22	32.84	40
	Reasons for using anabolic	Medical or nutritional recommendation	-	-	-	-	-
		Improve physical performance	1	2.78	6	9.4	7
		Indication	1	2.78	1	1.6	2
		Improve appearance	1	2.78	3	4.7	4
		Others	3	8.33	6	9.4	9
		No report	30	83.33	48	75.0	78
		Total	36	100.00	64	100.0	100
	Options to modify the	Plastic	7	19.44	1	1.6	8
	body and achieve its	Self-medication	1	2.78	1	1.6	2
	goals *	Diet on own	6	16.67	10	15.6	16

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account					
Use of	4	11.11	15	23.4	19
supplements					
Physical activity	32	88.89	43	67.2	75
Diet with	11	30.56	19	29.7	30
accompaniment					
No report	-	-	1	1.6	1

^{*} Participantes podiam marcar mais de uma alternativa

Of the total, nine (25%) of the women know FS and one (2.77%) AS. Among men, the percentages are 39 (56.25%) and seven (10.93%) respectively.

Regarding the use of FS, nine (25%) of the women and 39 (56.25%) of the men reported not to use. Regarding the association of the use with the practice of physical activity, 14 (38.89%) of the women reported not being important. Among those who indicated the use of supplements, the highest frequency were the friends, with five (13.89%) women and 18 (28.1%) men, followed by the physical educator, with four (11.11%) and seller, with six (9.4%), respectively.

The most commonly used supplement is protein: three (8.33%) among women 34 (53.1%) among men. Participants in the study stated that they had heard about AD, of which 32 (88.88%) were women and 62 (96.87%) were men. In relation to the use, only onr (2.77%) of the women and seven (10.93%) of the men affirmed the use.

Despite the difficulty in admitting their use, most of them said that they know someone who uses SA or SA, 28 (77.78%) of the women and 54 (84.4%) of the men. This rate may have been held higher by the fact that the respondent could respond indirectly to the contrary of the more invasively asked question, asking if he had already used any of the substances where the result was kept lower.

Regarding the indication of the use of AS, 25 (37.31%) of the men reported having been by friends, followed by Internet, with 11 (16.42%). Women were well divided between these two categories, with six (16.22%).

Regarding the reasons for using AS, three (8.33%) women did not specify the use and six (9.4%) were said to improve physical performance.

According to the questioning about what people would do to modify their body, the main option was, the practice of physical activities, corresponding to 32 (88.89%) of the women and 43 (67.2%) of the men.

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Table 5. Variables on effects caused by the consumption of anabolic steroids and food supplements according to gender. Minas Gerais (MG), Brazil, 2016. (n = 100)

	Effects caused by	Women	(n=36	Men (n=64)	Total	
AS*	Change in voice (wamen)	29	80.56	38	59.4	67
A5	Change in voice (women)	29 5	13.89			
	Permanent physical change	5 5	13.89		17.2 31.3	16 25
	Liver problems (cancer)	5 1	2.78	8	12.5	9
	Early hair loss Growth of abnormal tissues	2	5.56	8	12.5	
	Increased clitoris					10
		1	2.78	7 9	10.9	8
	Psychological weakening	1	2.78		14.1	10
	Increased bad cholesterol	2	5.56	7	10.9	9
	Sexual impotence	8	22.22		20.3	21
	Menstrual irregularities	-	-	8	12.5	8
	Good cholesterol reduction	-	-	5	7.8	5
	Reduction of breast tissue	1	2.78	6	9.4	7
	Increased prostate	1	2.78	11	17.2	12
	Increased facial and body hairs	5	13.89		25	21
	Development of mammary glands	2	5.56	8	12.5	10
	(men)					
	Aggressiveness, hyperactivity and irritability	2	5.56	10	15.6	12
	Decreased number of spermatozoa	1	2.78	9	14.1	10
	There is none	1	2.78	2	3.1	3
	Others	-	-	3	4.7	3
	No report	3	8.33	7	10.9	10
FS*	Problems in bone metabolism	3	8.33	3	4.7	6
	Psychological changes	2	5.56	1	1.6	3
	Problems in Kidney Metabolism	14	38.89	21	32.8	35
	(Kidneys)					
	Hormonal changes	8	22.22	11	17.2	19
	Problems in hepatic metabolism	8	22.22	14	21.9	22
	(liver)					
	Heart diseases	7	19.44	9	14.1	16
	Increased risk of cancer	8	22.22	-	-	8
	Appearance of acne	8	22.22	8	12.5	16
	Flatulence (gauze)	3	8.33	10	15.6	13
	Other	1	2.78	3	4.7	4
	There is no	5	13.89		10.9	12
	No report	6	16.67	9	14.1	15

^{*}Participantes podiam marcar mais de uma alternativa

Both men and women mostly recognize the change in voice as the effect of AD (80.56% of women and 59.4% of men). Then, among females, eight (22.22%) indicated sexual impotence and 20 (31.3%), liver diseases among men.

Regarding the questioning related to the effects caused by FS consumption, both men and women answered the problems in renal metabolism as the main side effect caused by their consumption, corresponding to 14 (38.89%) women and 21 (32.8%) men.

However, the issues without reporting or the non-identification of side effects totaled 11 (30.56%) women and 16 (25%) men and this fact demonstrates that many may be unaware of the effects that this product may cause or that some were inhibited from responding to the questionnaire because they felt insecure with their data.

DISCUSSION

In a study of women practicing physical activity, the majority had higher education and the goals of the practice were mainly, focused on aesthetics, and on health.¹³ In the current study, most of the participants had a medium level of training, with a primary focus on improving health and rehabilitation. In general, when men practice bodybuilding, they aim to improve health and aesthetics, while women aim at quality of life and aesthetics.¹⁴ However, seeking health without professional guidance is inefficient¹³ and even dangerous.

Due to the indication of friends, although the level of education is high and the level of knowledge, is higher, these people are prone to develop comorbidities because they do not receive adequate guidance.

The FSs most cited by the individuals of a study were Whey Protein, creatine and

albumin.¹⁴ These results were similar to this study, where there was a higher index in both men, and women. The literature points out that consumption of protein supplementation, above daily needs, does not determine muscle mass gain and can lead to kidney problems and fat storage.¹⁵

n a systematic review, 12 studies pointed out the reasons for the consumption of supplements, being most frequently cited: health-related aspects (67%); (50%) and increase energy (50%). ¹⁶ Lack of vocational guidance and the use of ergogenic resources by friends and others without training constitute a health risk. Most of the people interviewed pointed out the instructor of the academy and the nutritional indication as main indicators. ¹³ Contrary to the research carried out, he pointed out the friends as main indicators.

FSs are, mainly used, to provide accelerated gain of muscle mass or weight loss and may be related to the faster achievement of an "ideal body" for these participants.¹⁷

Self-perception of body weight, identified as ideal or below ideal, is related to the greater frequency of FS use. 18 There are people who use FS because they believe they are below the expected body mass. In one study, a statistical difference was found between those who consumed or not supplements. The people who reported consuming presented a smaller difference between the current and desirable images in the silhouettes scale. 17

Although men and women presented a normal BMI indication, a large majority of respondents were dissatisfied with their body in both sexes. ¹⁴ In this study, participants of both sexes maintained the same image of the scale of silhouettes, demonstrating that are satisfied with their self-perception.

Another study carried out with respect to the silhouetted scale showed a divergence from the results of the current study, in which there was a higher prevalence of individuals who saw themselves as being eutrophic, with the highest frequency being the desire for a smaller silhouette.¹⁹

Regarding the options for modifying the body and achieving the goals, the majority reported physical activity and diet with follow-up. This is very good, however, both sexes report diet on their own; some men, with the use of supplements and some women, with the accomplishment of aesthetic surgeries (plastic), which shows the vulnerability of this population.

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People who use supplements, on average, believe they are below expected body mass, while those who do not use, on average, believe they are above what they would like.

The current study showed that the greater the age, weight or BMI, the lower the desired body mass. This perspective of reduction in body measurements may influence the use of FS, especially among men, since these are the main users of protein supplements.²⁰

study demonstrated preference related to the increase of the body mass of people who had an exclusively esthetic motivation, in relation to a decrease of the mass in the other groups. Aesthetic goals are the most sought after by this type of providing equal exercise, risks to the psychosocial symptoms of muscular $dy smorphism. ^{21} \\$

Regarding the use of FS, the participants are aware of problems in renal metabolism and this indicates that they are aware of the risks associated with inappropriate use.

Both in the literature and in this study, the most recognized effects were changes in the woman's voice, acne, liver disease and others. People in this study also recognize these symptoms as the main symptoms in both genders.

The fact that the participants leave questions about the use of anabolics may be related to their insecurity in responding to the research, which may put them in a state of disapproval, despite the secrecy of the research. The number of blank questions, especially those about side effects, may indicate fear or ignorance.

Epidemiological studies are important to determine the patterns and trends of a given population. ²² In this research, the population presented characteristics similar to those presented in the literature, and studies with other approaches are necessary to better investigate the vulnerability of this society. Given the results, it is possible to note the importance of a multiprofessional approach with preventive measures, leading to the lower propensity of comorbidities in relation to these factors.

People should understand that in order to have a healthy body, they can stick to physical exercise, but this practice, without the help of an appropriate professional, can generate problems, especially if it is associated with the use of supplements and anabolic steroids to reach faster expected results.

Although bodybuilding has a beneficial effect on the change in body composition, this practice should be associated with adequate

nutrition and not only with the use of supplements in order to achieve certain goals.²³

In primary care, Nursing has a greater link with the patient, being able to work on health education, either in lectures or in individual guidelines, identifying cases of people who use these compounds without guidelines, and can propose medical or nutritional counseling, work as a team multiprofessional, identify the cases of dysmorphia for treatment, discern the symptoms and relate them to the use, thus, preventing health problems.

Counseling to practice physical activities in primary care is incipient, making it necessary for health professionals, especially nurses, to act more in this process, with a predominant focus on health promotion.²⁴⁻⁵

CONCLUSION

It has been found that people who practice bodybuilding use supplements and do not seek any kind of medical or nutritional guidance, despite exercising with health.

Regarding self-image, there was evidence that this population has evidence of alterations and this may indicate that this population is not prone to develop dysmorphia. However, health education should be kept in mind, since the fact that they are not dissatisfied with their body image does not prevent them from continuing to consume steroids and anabolics, which may represent, in the long term, major health problems for this population, It is incumbent upon Nursing to act in prevention campaigns with direct information on the consequences of its use.

The fact that this population presents these results at the present time does not prevent the results from changing if another research is carried out. Although the confidentiality of participants' data was explained, many felt insecure in answering some questions.

One of the limitations of the study is the difficulty of finding literature that directly investigates the relationship between self-image, use of FS and AS, and the performance of the multiprofessional team, among them, nurses in primary care.

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