## 109 - ADHERENCE AND IMPACT OF THE WORKING OUT IN MEDIUM-SIZED GYM CUSTOMERS

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## 1 INTRODUCTION

In the first decades of the nineteenth century, the gyms had their first activities through the teaching of swimming and fights (BERTEVELLO, 2004). According to the same author, this model of gym has gone through successive transformations and since the 40's, the gym model that prevails nowadays in Brazil, started spreading based on gymnastics, struggles and new offerings from weightlifting.

The breakthrough in this sector took place after 50 years, in the early '90s, where it happened what we call a "boom" of the gyms, with the emergence of megaacademias and the creation of new forms in order to meet the needs of a diverse clientele. As major disseminators, the media tend to influence people to commit themselves to an exploration of what would be the perfect body and encouraging a more timid in the practice of physical activity with the goal of improving health.

After unsystematic observations, it was noted there are a growing number of bodybuilders and other modalities offered by the gyms, it doesn't mean that there is a physically active population, because in the last few results found in Vigitel Brazil (BRASIL, 2010) - which is a surveillance system for risk and protective factors for chronic diseases conducted by telephone survey in the 26 states plus the Federal District - reveals that the evolution of the frequency of leisure-time physical activity of the population over 18 years is only $14.9 \%$. When separated by gender, males overlaps with more than $6 \%$ over the female.

When examining the profile of individuals who begin exercise programs at gyms, on the body composition and objectives in relation to age and sex, Filardo and Leite (2001) report that for the age group of 20-30 years old, women represent $53.4 \%$ with the goal of losing weight. In contrast, men at the same age group want to to increase muscle mass ( $84.2 \%$ ). However, when performing the correlation between the level of waist circumference and physical activity level, Vianna, Silva and Gomes (2008) have found that 40 participants 18-44 years old, measured in a shopping mall in west of Rio de Janeiro , $77.8 \%$ males is $60 \%$ overweight and obese. The level of physical activity obtained by questionnaire of habitual physical activities shows that physically inactive men only account for $20.83 \%$ and $31.25 \%$ in women.

In the recent study conducted by Schmidt et. al. (2011) about non-communicable diseases in the Brazilian population, it was shown that excess weight is progressing in the same proportion as hypertension and diabetes, as they associate the bad health habits adopted as the intake of processed foods, cookies, crackers, soft drinks, processed meats and ready meals.

Work with training against resistance developed for the treatment of some chronic diseases and / or risk factors have been shown quite effectively in their applications, as evidenced in the study of Average et.al. (2005) who studied the behavior of subacute blood pressure after power training in controlled hypertensive, concluded that through a session of this type of training, systolic blood pressure achieved a reduction in their levels, and finished reporting the need for a greater volume training for the significant effect also occurs in diastolic blood pressure.

From the foregoing, and believing that physical activity associated with other factors can improve the quality of life of its practitioners, the aim of this study was to investigate the reasons for adherence and the impact of the practice of bodybuilding in a gym located in downtown Rio de Janeiro.

## 2 METHODOLOGY

It is a quantitative study using the statistical model to explain the data, a better known model is the survey of opinion (BAUER et al. Al., 2003). The research survey is characterized by direct questioning of persons by interview or questionnaire. According to Gil (2006) in field study is a study a group or a community highlighting the interaction of its components.

The survey consisted of 62 volunteers bodybuilders of all ages and levels of training, data collection was through a questionnaire answered by volunteers in the presence of the researcher to ascertain possible issues, they received a consent form and clarified in accordance with Resolution 196 of the CNS (1996), explaining the procedures to be performed and asking permission to use the data, with preservation of anonymity. Participants were also told they could ask for its withdrawal from the research at any time during the study. The term was signed in duplicate, one being with the informant and the other with the researcher.

## 3 DISCUSSION AND ANALYSIS OF DATA

The discussion of the data is based on the following segments: Characteristics of the sample, reasons that led to practicing bodybuilding; type series carried out; interval between sets, period of training, aerobic exercises, Heredity, reported Diseases, and Frequently health problems.

### 3.1 Characteristics of the Sample

The study included 62 participants, evenly divided between men and women. The average age of the sample group was $31.54 \pm 10.27$ years. Data that resembles the finding present in the study of Palma and colleagues (2003) that in carrying out the reflections on the adherence to exercise, risk behavior and vulnerability it was found that $54.4 \%$ of the individuals aged between 20 to 39 years, are entering the gym.

Characterizing beginner students in an academy in Curitiba, Filardo and Leite (2001) encountered 90 males aged between 20 and 40 , who had a mean body mass index of $26.4 \pm 5,1 \mathrm{~kg} / \mathrm{m} 2$. By separating each decade of life ( 20 to 30 years) the above mentioned study, it can be found that there are resemblance to the present study in the variable in question, which corresponds to $24.4 \pm 3.3 \mathrm{~kg} / \mathrm{m} 2$.

The average variable data is: time for practicing in the gym ( 2.7 years), weight (4.2 years), cost per training session ( 71.54 min .) And to complete the amount of times a week (4.1) are consistent with what is recommended for formal exercise prescription (ACSM, 2000).

|  | Average | DP |
| :--- | :---: | :---: |
| Age (years) | 31,56 | 10,27 |
| IMC $\left(\mathrm{Kg} / \mathrm{m}^{2}\right.$ ) | 24,4 | 3,3 |
| Practice time in the gym (years) | 2,7 | 1,9 |
| Time practicing bodybuilding (years) | 4,2 | 4,6 |
| Times per week | 4,1 | 1 |
| Session time (minutes) | 71,54 | 25,42 |
| Gender | Male | Female |
| n | 31 | 31 |

Tabela 1: Características da amostra

### 3.2 Reason that led to the practice of bodybuilding

Note that among the main reasons cited that led the informants to weight training, health and aesthetics with 47 and 41 were, respectively, findings that have obtained their preferences. Whereas, students often seek for practice this exercise in the gym, many tie their goals to reduce the fat body mass and increase muscle mass. Sabino's study (2000) makes this association of aesthetics and health:

The image of strength, beauty and youth become synonymous with health or better health is subsumed to the aesthetic, which may not mean being "fit," not sharing the practices of the group, is to be without health, and therefore excluded from his living. (p.63)

Analyzing other instances, it appears that even with low frequency of citations, topics such as entertainment (10) and medical advice (6) are discussed by the interviewees. Since it coincides with the one from Seixas et al. (2003) is: when it was verified that the prescription of physical activity performed by orthopedic surgeons in Brazil, it was reported that 516 of these professionals consider physical activity important in helping their patients improve their health. However is: pointing the practicing bodybuilding with a frequency of 5 times per week with 30 minutes duration and moderate intensity corresponded to only $0.6 \%$, and the last activity prescribed for them. By comparing with the walk within the same variables, we obtained a degree of preference of $8.8 \%$ being the most orthopedists indicated by these professionals.

### 3.3 Series type held

The hypertrophy with $48 \%$ of the findings reinforce what we last reported on why the practice of bodybuilding. Since that stubborn for fat loss and consequently to increase and definition of muscle mass are the types of programs are most frequent among the practitioners of this modality (SABINO, 2000).

Proceed with the analysis of incidents reported by respondents about the type of series carried out, we ascertain that hypertrophy is followed by resistance and finally the setting with $11 \%$ and $9 \%$ respectively. According to Filardo and Leite (2001), more than $84 \%$ of men $(\mathrm{n}=90)$ aged between 20 and 30 aim to increase muscle mass, however those who want to tone the muscles equal only to $15.4 \%$. This finding may also corroborate can justify the limited evidence for muscle definition in this study. While citing the same study, women were $65.4 \%$ for overall toning and increasing muscle mass $5.3 \%$, a result that follows in opposition to this research.

### 3.4 Interval between series

The classification of the interval between the series of exercise highlights the large proportion of respondents rest 1 minute ( $23 \%$ ), 1 minute and a half ( $13 \%$ ), 30 to 45 seconds ( $11 \%$ ), no particular range ( $7 \%$ ) more than a minute and a half ( $6 \%$ ) and without a break (2\%). According to Fleck and Kraemer (1999) it was demonstrated that periods of rest influence the determination of the stress of training and the total load that can be used. The rest intervals between series and exercises may interfere with aspects such as the degree of recovery of ATP-CP energy, the concentration of lactate in the blood and also on factors such as fatigue and anxiety. By analyzing training with two different durations ( 90 and $120 / 2$ ) breaks between sets, Lima et al. (2006) found a significant reduction in the number of repetitions during the series and income, and no differences in the pauses of 30 seconds held by them.

### 3.5 Frequency of Training

For the body undergoes changes there must be changes and adjustments in the exercise program. Below is denoted how long these changes are made in the programs of the respondents. In the leading group, the regulations in the exercise program is held every two months corresponding to $23 \%$ are without regularity and 4 months to $13 \%$ each, with $11 \%$ every 3 months and the ultimate over 4 months and other periods $1 \%$ each. It should be noted that the timeline is to draw up a work plan and seeks to answer the need to integrate all the variables involved and interdependent of routine muscle strength training (FLECK;KRAEMER, 1999).

### 3.6 Aerobic exercises

Aerobic exercise expresses an important role in fitness, weight control and various functions of our body. When you look closely at the data provided by respondents, it was noted that $37 \%$ do not practice aerobic exercise, even if they are widely disseminated by health professionals and various media the benefits of this type of training, this demonstrates that a large proportion of informants does not signal any concerns concerning their absence for this type of training. This fact of great concern, since as there is in several collections that deal with the subject available in the literature mentions that people with chronic diseases such as hypertension, diabetes mellitus, obesity, among others, present in their prescriptions of physical activity training aerobic (POLLOCK, WILMORE, 1993; WILMORE, COSTILL, 2001).

### 3.7 Heredity

Among the diseases acquired by relatives of the informants, non-transmissible chronic hypertension was significantly more frequent with $30 \%$ of the findings. Proceed with the analysis, we found that the cancer or tumors, diabetes mellitus, heart disease, allergy / asthma and other diseases are respectively $22 \%, 21 \%, 19 \%, 17 \%$ and $2 \%$. According to the Pan American Health Organization (2003) 3.9 million people in the world come to that obtained annually from the acquisition of one or more risk
factors in combination with one or more chronic non-communicable disease. He adds, that if there was change in eating habits and increased use of regular exercise, most cases of coronary heart disease and cancers could be avoided.

It should be noted that it was not reported by respondents if their family practice some physical activity, since in many of these diseases reported exercise is prescribed as a treatment of it.

### 3.8 Reported Disease

This category of reported diseases, allergy with $12 \%$ of cases had a higher prevalence in relation to others. This may be associated with the environment where it is performed physical activity. In making observations by some non-systematic weight rooms, we noticed that many do not have a due care when dealing with the cleaning of fans and / or air conditioners.

In contrast, Palma et.al. (2006) conducted a study on the scale epidemiological association between socioeconomic indicators of life and physical exercise, found that the distribution of cases related to physical exercise associated with risk factors for coronary artery disease, the largest group practice physical exercise only 83.9\% do not smoke, $92.1 \%$ do not have high blood pressure and $45.7 \%$ have no family history of cardiovascular disease.

By continuing to analyze the data, other diseases less frequently affected by frequents are asthma (5\%), gastritis (2\%) and a single record of hemolytic anemia (1\%).

### 3.9 Frequent health problems

As for health problems expressed by respondents, changes in mood (13\%), joint pain (12\%) and headaches (10\%) were more frequent in parallel with hypertension ( $6 \%$ ), muscle pain ( $5 \%$ ) coordination and balance ( $4 \%$ ), lack of appetite ( $4 \%$ ), chest pain or palpitations (3\%), shortness of breath during sleep ( $2 \%$ ) and nasal bleeding ( $1 \%$ ). Hitch up the highest incidence found in the first three instances the type of training conducted by the study population, opted for a prescription-oriented training muscle hypertrophy. It is clear that compares the search for the Body, since "regulars never have been content with the way they display. Always look forward to 'grow', 'harden more', 'set to lose more fat to the muscles.' "(SABINO, 2000, p. 84)

## 4 A WAY OF CONCLUSION

This study aimed to verify the reasons for adherence and the impact of the practice of bodybuilding in a gym located in downtown Rio de Janeiro. In face of the facts stated by the large share of gym-goers joined the gym with the goal of health associated with aesthetics, as your preferred training prescription was anchored in muscle hypertrophy.

With regard to chronic diseases there wasn't prevalent in goers, but heredity revealed the hypertension for which was recommended for participants to have attention, because the inheritance belongs to one of the facilitating factors for acquiring this chronic disease during of life, being necessary to good health habits, access to health services and maintain regular practice of physical exercise under supervision.

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## ADHERENCE AND IMPACT OF THE WORKING OUT IN MEDIUM-SIZED GYM CUSTOMERS <br> ABSTRACT

The object of the present study was to verify the reasons to adherence and also the impacts of the working out in a medium-sized gym, placed in Rio de Janeiro downtown. It is a quantitative research and its better known model is the survey of opinions (BAUER et. al., 2003), so it was used a descriptive statistics in order to analyze and to discuss the data. Sixty two people, equally divided by sex, took place in the research. The results show that the average age is $31,54 \pm 10,27$ years, the amount of times spend practicing gym (2,7 years), working out (4,2 years), in which training session ( $71,45 \mathrm{~min}$ ) and the time per week ( 4,1 ). The manly reasons to working out was the health (47) and the esthetics (41), $48 \%$ of them are hypertrophied because of the kind of series, $23 \%$ wait only one minute before change the series and $37 \%$ practice aerobic exercises. Heredity showed hypertension in $30 \%$, allergy ( $12 \%$ ) as a disease reported and injuries to health with $13 \%$ change in mood. Upon the facts stated a large portion of the attendees of the gym started to work out with the goal of health associated with aesthetics, once that the preferred training prescription was anchored in muscle hypertrophy.

KEY-WORDS: Strength training. Adherence. Impact.

## RESPECT ET L'IMPACT DE LA SORTIE DE TRAVAIL DANS LES CLIENTS GYM MOYENNES ENTREPRISES RÉSUMÉ

L'objet de la présente étude était de vérifier les raisons de l'adhésion et aussi les impacts de la travailler dans un gymnase de taille moyenne, placé dans le centre-ville de Rio de Janeiro. Il s'agit d'une recherche quantitative et de son modèle plus connu est l'enquête d'opinions (Bauer et al. Coll., 2003), il était donc utilisé une statistique descriptive pour analyser et discuter les données. Soixante-deux personnes, également réparties par sexe, a eu lieu dans la recherche. Les résultats montrent que l'âge moyen est de $31,54 \pm 10,27$ ans, le nombre de fois passent pratiquer gymnase ( 2,7 ans), travaillant à ( 4,2 ans), dans lequel la session de formation ( $71,45 \mathrm{~min}$ ) et le temps par semaine ( 4,1 ). Les raisons de travailler hors viril était l'état de santé (47) et l'esthétique (41), $48 \%$ d'entre eux sont hypertrophiés, car le genre de série, $23 \%$ seulement d'attendre une minute avant de changer les séries et les exercices pratiques de $37 \%$ aérobie. L'hérédité a montré l'hypertension chez $30 \%$, les allergies $(12 \%)$ comme une maladie rapportés et des blessures à la santé avec le changement de $13 \%$ dans l'humeur. Sur les faits énoncés une grande partie des participants de la salle a commencé à travailler avec l'objectif de la santé associés à l'esthétique, une fois que la prescription de formation préféré était ancré dans l'hypertrophie musculaire.

MOTS-CLÉS: formation de force. Adhérence. Impact.

## ADHESIÓN Y EL IMPACTO DE LA SALIDA DE TRABAJO EN EL GIMNASIO DE CLIENTES Y MEDIANAS EMPRESAS

## RESUMEN

El objeto del presente estudio fue verificar los motivos de la adhesión y también los efectos de la elaboración de un gimnasio de tamaño medio, situada en el centro de Río de Janeiro. Se trata de una investigación cuantitativa y su modelo más conocido es la encuesta de opiniones (Bauer et. Al., 2003), por lo que se utilizó una estadística descriptiva con el fin de analizar y discutir los datos. Sesenta y dos personas, divididos por sexo, se llevó a cabo en la investigación. Los resultados muestran que la edad media es de $31,54 \pm 10,27$ años, la cantidad de veces que pasan practicando gimnasia ( 2,7 años), la elaboración (4,2 años), en el que sesión de entrenamiento ( $71,45 \mathrm{~min}$ ) y el tiempo por semana ( 4,1 ). Las razones masculinas a trabajar a cabo fue el de salud (47) y la estética (41), el $48 \%$ de ellos son hipertrofiado por el tipo de serie, el $23 \%$ espera un minuto antes de cambiar la serie y el $37 \%$ los ejercicios de la práctica aeróbica. Herencia presenta hipertensión en el 30\%, la alergia (12\%) como una enfermedad reportados y daños para la salud con el $13 \%$ de cambio en el estado de ánimo. Tras los hechos expuestos una gran parte de los asistentes de la gimnasia comenzó a trabajar con la meta de salud asociados con la estética, una vez que la prescripción del entrenamiento preferido estaba anclado en la hipertrofia muscular.

PALABRAS CLAVE: entrenamiento de fuerza. Adhesión. Impacto.

## ADESÃO E IMPACTO DA PRÁTICA DE MUSCULAÇÃO EM FREQUENTADORES DE UMA ACADEMIA DE MÉDIO PORTE <br> RESUMO

O objetivo do presente estudo foi verificar os motivos de adesão e o impacto da prática de musculação em uma academia localizada no Centro do Rio de Janeiro. Trata-se de uma pesquisa quantitativa, tem como modelo mais conhecido o levantamento de opinião (BAUER et. al., 2003) e utilizou a estatística descritiva para realização da análise e discussão dos dados. Contou com a participação de 62 indivíduos, divididos igualmente entre os sexos. Os resultados apontam que média de idade encontra-se $31,54 \pm 10,27$ anos, o tempo de pratica na academia ( 2,7 anos), de musculação ( 4,2 anos), gasto por sessão de treinamento ( $71,54 \mathrm{~min}$.) e a quantidade de vezes por semana ( 4,1 ). Os principais motivos a praticar musculação foram a saúde (47) e a estética (41), $48 \%$ tem a hipertrofia como tipo de série, $23 \%$ descansam apenas 1 minuto e trocam de programa, e $37 \%$ realizam exercício aeróbio. A hereditariedade evidenciou a hipertensão arterial com 30\%, a alergia (12\%) como doença relatada e agravos a saúde com $13 \%$ a alteração no humor. Mediante aos fatos expostos a grande parcela dos freqüentadores da academia aderiram à musculação com o intuito da saúde associada à estética, já que sua preferência de prescrição de treinamento ficou ancorada na hipertrofia muscular.

PALAVRAS-CHAVE: Treinamento de força. Adesão. Impacto.

