

90 - VERIFICATION OF THE PROFILE OF PHYSICAL FITNESS RELATED TO THE HEALTH OF BEGINNERS' STUDENTS IN THE FIRST PERIOD OF THE PHYSICAL EDUCATION GRADUATION COURSE AT UNIEVANGÉLICA

JAIRO TEIXEIRA JÚNIOR; NATALIA FERNANDES PROPATO;
 FERNANDO JOSÉ MELO DE AQUINO.
 PIBIC- UniEVANGÉLICA-Anápolis-GO-Brazil.
 LAFE-Laboratory of Physical Evaluation of the Evangelical.
 jairojuniorteixeira@hotmail.com

Introduction

As Rodrigues, 1991, the term "Life Quality" implicates in the harmonic inter-relation of the several factors that mold and differentiate the daily life of the human being, and result in a net of phenomenon, people and situations. Several factors from the biological, psychological and social-cultural nature, like: physical health, mental health, longevity, job satisfaction, family relations, disposition, productiveness, dignity and even spirituality are associated to the term life quality.

The expectation of a changing on the existent level of life, for a pattern of higher quality, is an endless and stressful search for most of the people. This search has been an object of studies in many areas, among them: Sociology, Psychology, Medicine physical education and engineering. Specially, there is the physical education, that searches for improvements on men's life quality through the physical activity, stimulating them, beyond the practice of physical exercise to new behaviors, like, to review your way to feed, distribution of his time between job and leisure, to understand this man in your professional and familiar relations (SELYE, 1999).

Health might be largely affected by many factors that can be habits or healthy attitudes. Among them, the physical abeyance is considered today as a primary risk factor and it's linked to hypertension, hyperlipidemia and smoke (American Heart Association, 1992), which contribution has a cumulative effect that has an impact on health, in the biological, physiological, immunologic and anatomic systems. A life style that matches many virtues (feeding, regular physical activity, stress control, etc.) might increase the life expectancy and above all, provides a healthier life.

Shepard, 2005, affirms that only with appropriate informations and instructions about the true benefits of a physical exercise, is that society will accept the responsibility of investing on health through physical aptitude. The benefits that governments and physical teachers can anticipate, if the society gets exercised, include an improvement on health, an increase on productiveness, and a decrease on dependence and on attention that elderly need, and a reduction of the alienation. An efficient way to increase the habits of exercises in a nation is to develop programs of information's that make clear the doubts and explain about the reality of physical exercises, showing the impact that it has over the body, and the way it fights diseases and make them minimum (NAHAS, 2005).

Objectives

Verification of the Physical Aptitude Profile related to the health of beginners' students in the first period of the Physical Education graduation course at UniEvangélica.

Material and method

Research kind: descriptive. Population: students from the physical education graduation course, nocturnal Degree of Licentiate and Bachelorship of UniEvangélica. Sample: 40 people, genders masculine and feminine. Inclusion criterium: to be regularly registered on the physical education of UniEvangélica. Instruments: valuation of body composition using the compass of cutaneous fold, brand: Cescorf, scientific model. Stature measure with Estadiometro model: SECA, kind Ribbon. Measure of the total body mass with analogic brand: Welmeij (scientific, analogic kind). Flexibility test of inferior members with the Wells' bank. Test of 1 minute for abdominal resistance, 1 minute for arm strength and Test VO₂ max indirect - test of 12 minutes in the athletics track. Statistical treatment: to verify the data variation, it was used the descriptive statistics with average and standard deviation, and the same for the test "t" student for dependents samples with the significant level established as p=0,001.

Results/discussion

In chart 1, the descriptive data of each component if the physical fitness related to health (PFRH) is presented, respectively, from the masculine Sex.

If the results of men (in both moments, when using the test "t" student) are compared, it's seen a significant difference in 2 variables of the PFRH.

In this way, the men presented bigger statistical values on the second moment of the variables: Flexion/Extension (arms) (p<0,010) and VO₂ max (p=0,011), the men are inside the good classification by the American Heart Association. On the other variables, there wasn't any significant difference, the results present that in the fatness percentile, men were above the average considered good by the literature and was kept high for the second moment. Pollock and Wilmore (1993) consider that the appropriate value of the fatness percentile for men in this age is (on average) from 8 to 10 %. Regarding flexibility. There wasn't any difference, because it remained on the regular classification for this item, getting on the second moment just the average of 29 repetitions (9,34). In agreement to Weineck (2003), the flexibility is the capacity that an individual has of performing movements which contain a great extent with the help of many joints, and today it must be included, as the ACSM (2003) in any kind of training, to improve and keep an extent considered appropriate to assure to the individual a good life quality, so, in this way, these academics should emphasize the work of flexibility, because they don't have an appropriate condition, as literature says. On the abdominal resistance, the result on the second moment was of 36,07 (7,41), being classified as medium for Pollock and Wilmore (1993). In agreement to Sharkey, muscular resistance is the ability of a muscular group to keep the levels of maximum strength by a long period of time.

A research authenticated by Maia et al. (2003), in the "push up" tests (superior strength of the trunk) and "curl up" tests (abdominal strength) which were realized on teenagers, reveals that the clear insufficiency if physical fitness are related to health in these tests.

As Barbanti (2004) said, the importance of physical fitness related to health is about preventing diseases which are results from sedentarism, to measure the life quality and to make people have a great health.

There is a mutual idea among the authors, which is that physical fitness in teenagers must be worked out and

developed, so they don't have diseases' problems on their adult ages (BARBANTI, 2004; MARQUES, 1999; GAYA, 1999; FERREIRA, 1999).

| VARIABLES | Number | Minimum | Maximum | Average | Standard deviation |
|-------------------------------|--------|---------|---------|---------|--------------------|
| Stature (cm) 1 | 20 | 165,80 | 181,00 | 174,45 | 4,95 |
| Stature (cm) 2 | 20 | 165,80 | 181,00 | 174,47 | 4,93 |
| Age | 20 | 18 | 33 | 24,71 | 5,15 |
| Corporal mass 1 | 20 | 65,80 | 82,00 | 73,48 | 4,69 |
| Corporal mass 2 | 20 | 67,80 | 81,40 | 73,77 | 3,89 |
| Flex/ extension arms (rep) 1 | 20 | 11 | 29 | 21,36 | 4,92 |
| Flex/ extension arms (rep) 2 | 20 | 15 | 29 | 22,79 | 3,95 |
| Flexibility log (cm) 1 | 20 | 15 | 42 | 26,58 | 7,09 |
| Flexibility log (cm) 2 | 20 | 18 | 45 | 29,68 | 9,34 |
| Percentile of fat 1 | 20 | 15,90 | 25,40 | 20,22 | 2,85 |
| Percentile of fat 2 | 20 | 15,00 | 26,00 | 19,80 | 2,95 |
| Abdominal resist. (rep/min) 1 | 20 | 21 | 48 | 34,29 | 7,55 |
| Abdominal resist. (rep/min) 2 | 20 | 22 | 45 | 36,07 | 7,41 |
| Vo ₂ max 1 | 20 | 38,90 | 55,80 | 46,70 | 5,37 |
| Vo ₂ max 2 | 20 | 39,90 | 55,90 | 47,85 | 4,48 |

Chart 1 physical Aptitude related to the health (masculine sex).

In chart 2, the descriptive data of each component of the PFRH are presented, respectively, from the feminine Sex. It's important to remark that in the arm's flexion and extension tests, the way to execute them was different for women (supporting the knee on the ground).

| VARIABLES | Number | Minimum | Maximum | Average | Standard deviation |
|-------------------------------|--------|---------|---------|---------|--------------------|
| Stature (cm) 1 | 20 | 151 | 171 | 161,5 | 6,12 |
| Stature (cm) 2 | 20 | 152 | 171 | 161,93 | 6,01 |
| Age | 20 | 18 | 33 | 24,29 | 5,11 |
| Corporal mass 1 | 20 | 54,3 | 72 | 59,40 | 4,71 |
| Corporal mass 2 | 20 | 55 | 68,2 | 58,70 | 3,91 |
| Flex/ extension arms (rep) 1 | 20 | 10 | 33 | 18,21 | 7,33 |
| Flex/ extension arms (rep) 2 | 20 | 10 | 35 | 19,36 | 7,26 |
| Flexibility log (cm) 1 | 20 | 10 | 38 | 29,35 | 10,5 |
| Flexibility log (cm) 2 | 20 | 13 | 45 | 35,32 | 8,4 |
| Percentile of fat 1 | 20 | 14 | 30 | 20,14 | 4,65 |
| Percentile of fat 2 | 20 | 12 | 27 | 18,71 | 3,98 |
| Abdominal resist. (rep/min) 1 | 20 | 24 | 34 | 29,50 | 2,74 |
| Abdominal resist. (rep/min) 2 | 20 | 22 | 39 | 30,21 | 4,02 |
| Vo ₂ max 1 | 20 | 24,60 | 49,70 | 33,68 | 6,63 |
| Vo ₂ max 2 | 20 | 25,90 | 51,50 | 35,05 | 6,52 |

Chart 2 physical Aptitude related to the health (feminine sex).

Comparing the results of women in both moments using the test "t" student, it was noticed that there was a significant difference in 3 variables of the PFRH. On this way, women showed values statistically bigger on the second moment in the variables: fatness percentile ($p < 0,035$), VO₂ max ($p = 0,020$) and flexibility ($p = 0,028$). Pollock and Wilmore (1993) consider that the fatness percentile, for women in this age, must be between 17 to 19 %, to be considered good. In the first moment, women were above the average, but after this, they had a significant decrease, being classified in a good percentile of fatness. In the VO₂ max, even there is a significant changing, women remained in a regular classification in their cardio-respiratory capacity, in agreement to the American Heart Association. Regarding the trunk flexibility, it showed a statistical changing, because, initially, the academics showed a regular flexibility, and on the second moment, they showed a medium flexibility. On the other variables, there wasn't any significant difference. The results show that, comparing the average values obtained with the reference charts, it was observed that, in relation to the IMC, that the average was inside the advisable weight rate. In relation to the average of the test of abdominal resistance, the result on the second moment was of 30,21 (4,02), being classified as good for Pollock and Wilmore (1993). In agreement to Sharkey (1990), the muscular resistance is the ability that a group has of keeping the levels of maximum strength for a long period of time. In the variable related to the muscular strength, it was observed that the classification was medium.

Generally, these results show that many university students - even attending to the curricular physical education (CPE) classes- present a low aptitude in some variables of the PFRH, mainly in the maximum consumption of oxygen and in their trunk flexibility. This fact reinforces the needs of programs that help to improve these variables, which are considered very important to people's health. Obviously, it can't be an exclusive function from the CPE to improve the PFRH of the university students, therefore, this subject can't have only this purpose. The CPE must, among other objectives, provide means to its students to adopt positive behaviors on what concerns their health, including in there the regular practice of physical activities. The future researches about the PFRH of this kind of students must investigate very representative samples. The researches must verify, also, if there is a difference between the level of the PFRH from those who practice the CPE to those who don't practice the CPE, as well as the relation between the PFRH with another health indicators - including the life style variables.

BIBLIOGRAPHICAL REFERENCES

- ABQV - ASSOCIAÇÃO BRASILEIRA DE QUALIDADE DE VIDA. O prêmio que valoriza a vida. São Paulo, Ano 1, n.2, novembro de 1995.
- ACSM - AMERICAN COLLEGE SPORTS MEDICINE. Position Stand. The recommended quantity and quality of exercise for developing and maintaining cardiorespiratory and muscular fitness in healthy adults. *Medicine Sciences Sports Exercise* 22, p. 55-74, 1991.
- AMERICAN HEART ASSOCIATION. Statement on exercise. *Circulation*, 86(1), p. 2726-2730, 1992.
- BLAIR, S. N., HAROLD, W.K., PAFFENBARGER, J. R., CLARK, M.S., COOPER, K. H., GIBBONS, M. D. . Capacidad física y tasa de mortalidad para todas las causas en general. *Resúmenes*, 3 Simposio Internacional de Actualización

- en Ciencias Aplicadas al Deporte. Rosário, p. 439-449, 1994.
- CHANLAT, J. F. A caminho de uma nova ética das relações nas organizações. Revista de administração de empresas. FGV, São Paulo, v. 32, jul/ago, p.68-73, 1992.
- LIMA, I. S. Qualidade de vida no trabalho na construção de edificações: avaliação do nível de satisfação dos operários de empresa de pequeno porte. Florianópolis. Tese de doutorado em Engenharia de Produção da Universidade Federal de Santa Catarina. 2003.
- MACEDO, D. Qualidade de vida no trabalho: um estudo comparativo em dois setores de uma mesma organização. Anais da XVI Reunião da ANPAD. Canela/RS, NPAD: v. 8, p. 153-167, 2004.
- MINISTÉRIO DA SAÚDE. Saúde e exercício físico uma atividade empresarial. Secretaria Nacional de Assistência à Saúde. Brasília, DF, 1991.
- NAHAS, M. V. Fundamentos de aptidão física relacionada à saúde. Florianópolis, Ed. da Universidade Federal de Santa Catarina, 2005.
- OMS - ORGANIZACIÓN MUNDIAL DE LA SALUD - Organización Panamericana de la Salud. Las condiciones de salud en las américas. Washington, v.1, n.549, p. 415- 417, 1994.
- PAPAROUNIS, D. Só falar não adianta. Inovação Empresarial. AnoVI, n. 62, p. 4- 6, julho 1995.
- PEGADO, P. Saúde e produtividade. Revista Proteção. Novo Hamburgo, ano VII, n 44, p. 52-57, 1995.
- RODRIGUES, M. V. C. Qualidade de vida no trabalho; evolução e análise no nível gerencial. Fortaleza: 1a edição, Fundação Edson Queiroz, Universidade de Fortaleza, p. 216, 1991.
- SELYE, H. Stress: A Tensão da Vida. São Paulo, Ibrasa, 1999.
- SHEPHARD, R. J. Custos y beneficios de una sociedad deportiva activa v/s una sociedad sedentaria. Resúmenes, 3o Simposio Internacional de Actualización en Ciencias Aplicadas al Deporte. Rosario, p. 127-135, Maio 2005.
- TOLFO, S. R. A qualidade de vida no trabalho - caso da CELESC. Semana da Pesquisa da Universidade Federal de Santa Catarina. Painel n. 245, 2001.
- VIEIRA, D. F. V. B., HANASHIRO, D. M.M. Visão introdutória sobre qualidade de vida no trabalho. Revista Gaúcha de Enfermagem. Porto Alegre, v. 2, n. 11, p. 41-46, 2000.

Rua Couto Dáfico Q.50, L05, Bairro Jundiáí, CEP : 75110190, Telefone : 39981592, Autores :Jairo Teixeira Junior, Natalia Fernandes Propato, Fernando José Melo de Aquino. UniEVANGÉLICA-Anápolis-GO-Brazil.

VERIFICAÇÃO DO PERFIL DA APTIDÃO FÍSICA RELACIONADO À SAÚDE DOS DISCENTES INGRESSANTES NO PRIMEIRO PERÍODO DO CURSO DE EDUCAÇÃO FÍSICA DA UNIEVANGÉLICA

Segundo Rodrigues, 1991 o termo qualidade de vida implica na inter-relação mais ou menos harmoniosa dos vários fatores que moldam e diferenciam o cotidiano do ser humano. Muitos fatores de natureza biológica, psicológica e sócio cultural, tais como: saúde física, saúde mental, longevidade, satisfação no trabalho, relações familiares, disposição, produtividade, dignidade e até mesmo espiritualidade estão associados ao termo qualidade de vida. O objetivo principal deste estudo foi traçar um perfil nível de Aptidão Física Relacionado à Saúde (AFRS) dos discentes ingressantes no primeiro período do curso de Educação Física em número de 40 acadêmicos sendo 20 homens e 20 mulheres comparando o estágio inicial, na entrada da faculdade e depois de um ano. Para tanto, foram feitos os seguintes testes: medidas antropométricas utilizando dobras cutâneas 7 dobras de Pollock & Jackson, para estimar a distribuição da composição corporal, flexibilidade com banco de Wells. Força de braço em 1 minuto, resistência abdominal em 1 minuto e Teste de VO₂ max indireto - teste de 12 minutos na pista de atletismo. Sendo que os resultados dos homens nos dois momentos, usando o teste t student, constatou-se diferença significativa em 2 variáveis da AFRS. Desse modo, os homens apresentaram valores estatisticamente maiores no segundo momento nas variáveis: Flexão/extensão braços (p<0,010) e Vo₂max (p=0,011). Já no restante das variáveis não houve diferença significativa. Comparando-se os resultados das mulheres nos dois momentos usando o teste t student, constatou-se diferença significativa em 3 variáveis da AFRS. Desse modo, as mulheres apresentaram valores estatisticamente maiores no segundo momento nas variáveis: percentual de gordura (p<0,035), Vo₂max (p=0,020) e flexibilidade (p=0,028). Pollock e Wilmore (1993). Podemos concluir que de maneira geral, estes resultados demonstram que muitos universitários - mesmo participando das aulas de Educação Física Curricular (EFC) - apresentam baixa aptidão em algumas variáveis da AFRS.

Palavras-Chave: Nível de aptidão física, Saúde e Universitários.

VERIFICATION OF THE PROFILE OF PHYSICAL FITNESS RELATED TO THE HEALTH OF BEGINNERS' STUDENTS IN THE FIRST PERIOD OF THE PHYSICAL EDUCATION GRADUATION COURSE AT UNIEVANGÉLICA

As Rodrigues, 1991, the term "Life Quality" implicates in the harmonic inter-relation of the several factors that mold and differentiate the daily life of the human being. Many factors from the biological, psychological and social-cultural natures, like: physical health, mental health, longevity, job satisfaction, family relations, disposition, productiveness, dignity and even spirituality are associated to the term "Life Quality". The main objective of this research was to set out a profile level of Physical Fitness Related to Health (PFRH) of the university students who went into the first period of the Physical Education graduation, at UniEvangélica. The academics were 40, being 20 women and 20 men. The tests were done when they entered the graduation course and again, one year later. For this, the following tests were done: anthropometric measures using cutaneous folds - 7 folds- of Pollock and Jackson, to estimate the distribution of the body composition, flexibility, with the "Wells' bank" test. Arm strength in 1 minute, abdominal resistance in 1 minute and Test of VO₂ max indirect- test of 12 minutes in the athletics track. From the men's results, on both moments, using the test "t" student, there was a significant difference in 2 PFRH variables. In this way, men showed statistically, bigger values on the second moment (a year later) in the variables: Flexion/Extension-arms (p< 0,010) and Vo₂ max (p=0,011). On the others variables there were no important differences. Comparing the women's results on both moments, using the test "t" student, it was noticed a significant difference in 3 PFRH variables. So, women showed, statistically, bigger values on the second moment in the variables: fatness percentile (p<0,035), VO₂ max (p=0,020) and flexibility (p=0,028). Pollock and Wilmore (1993). We can conclude that in a general way, these results show that many university students - even when participating on the Curricular Physical Education (CPE) - present a low aptitude in some of the PFRH variables.

Key- words: Level of Physical aptitude, health and university students.

CARACTERISATION DU PROFIL D'APTITUDE PHYSIQUE EN RAPPORT Á LA SANTÉ DES ÉLÈVES QUI SONT ADMIS AU PREMIER SEMESTRE DU COURS D'ÉDUCATION PHYSIQUE DE L'UNIEVANGÉLICA.

Selon Rodriguez, (1991) le terme qualité de vie implique une interrelation plus au moins harmonieuse de plusieurs facteurs qui donnent forme et font la différence dans le quotidien de l'être humain. Beaucoup de facteurs de nature biologique,

psychologique et socio-culturels, tels comme la santé physique, la sentimental, la longévité, la satisfaction dans le travail, les rapports familiaux, la disposition à la productivité, la dignité et jusqu'à la spiritualité même, sont associés au terme de qualité de vie. Le but principal de cet étude a été de tracer un profil : le niveau d'Aptitude Physique rapporté à la santé (AFRS) des élèves qui entrent au premier semestre du cours d'éducation physique, formé par 40 académiciens, 20 hommes et 20 femmes, en comparant l'étape initial, à l'entrée à la faculté et après d'une année. On a utilisé les tests suivants : les mesures anthropométriques utilisant les 7 plies cutanés de Pollack et Jackson, pour estimer la distribution de la composition corporelle et de la flexibilité avec le banc de Wells, la force du bras dans 1 minute, et le test de VO^2 max indirect-test de 12 minutes dans la piste d'athlétisme. Résultats : les hommes ont présenté dans les deux moments, en utilisant le test Student, une différence significative dans deux variables de la AFRS. Résultats : les hommes ont présenté des valeurs statistiquement supérieures au second moment dans les variations : pourcentage de graisse ($p < 0,010$), et VO^2 max ($p = 0,011$). Dans les autres variations, il n'a pas eu une différence significative, si on compare les résultats des femmes dans les deux moments utilisant le test student, on constate une différence en 3 variations de AFRS selon l'étude, les femmes ont présenté des valeurs statistiquement majeures au second moment dans les variations : pourcentage de graisse ($p < 0,035$) VO max ($p = 0,020$) et flexibilité ($p = 0,028$) Pollock et Wilmore (1993). Nous pouvons inférer que dans cette forme globale, les résultats montrent que beaucoup d'universitaires qui participent des classes d'éducation physique (EFC) présentent une baisse d'aptitude dans quelques variations de la AFAS.

Mots clé : Niveau d'aptitude physique, santé et universitaires.

CARACTERIZACION DEL PERFIL DE APTITUD FISICA RELACIONADA A LA SALUD DE LOS ALUMNOS QUE INGRESAN AL PRIMER SEMESTRE DEL CURSO DE EDUCACION FISICA DE LA UNIEVANGELICA.

Segundo Rodrigues, (1991), el término calidad de vida implica una interrelación mas o menos armoniosa de varios factores que moldean y hacen la diferencia en el cotidiano del ser humano. Muchos factores de naturaleza biológica, psicológica y sociocultural, tales como la salud física, la salud mental, la longevidad, la satisfacción en el trabajo, las relaciones familiares, la disposición, la productividad, la dignidad y hasta la espiritualidad misma, estan asociadas al término calidad de vida. El objetivo principal de este estudio fué trazar un perfil: nivel de Aptitud Física Relacionado a la Salud (AFRS) de los alumnos que ingresan al primer semestre del curso de educación física, siendo 40 academicos, 20 hombres y 20 mujeres, comparando la etapa inicial, al ingreso a la facultad y luego de un año. Se utilizaron los siguientes tests: medidas antropométricas usando los 7 pliegues cutáneos de Pollock y Jackson, para estimar la distribución de la composición corporal y la flexibilidad con el banco de Wells, fuerza del brazo en 1 minuto, resistencia abdominal en 1 minuto y test de VO^2 max indirecto-test de 12 minutos en la pista de atletismo. Resultados: Los hombres presentaron, en los 2 momentos, usando el test t student, una diferencia significativa en 2 variables de la AFRS. De este modo, los hombres presentaron valores estadísticamente mayores en el segundo momento en las variables: flexión/extensión de brazos ($p < 0,010$) y VO^2 max ($p = 0,011$). En las variables restantes no hubieron diferencias significativas. Al comparar los resultados de las mujeres en los 2 momentos usando el test t student, se constató una diferencia significativa en 3 variables de la AFRS. Por lo tanto, las mujeres presentaron valores estadísticamente mayores en el segundo momento en las variables: porcentaje de grasa ($p < 0,035$), VO^2 max ($p = 0,020$) y flexibilidad ($p = 0,028$). Pollock y Wilmore (1993). Podemos concluir que de forma global, estos resultados demuestran que muchos universitarios, aún participando de clases de educación física curricular (EFC), presentan baja aptitud en algunas de las variables de la AFRS.

Palabras llave: Nivel de aptitud física, salud y universitarios.