123 - WORK HEALTH PROMOTION AND QUALITY OF LIFE

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INTRODUCTION

In the last years, small and big companies have adopted some kind of health promotion programs motivated by several reasons: to turn its employees into healthier citizens, more satisfied and productive at work, to improve their wellness and quality of life (QL), reducing so, costs with medical assistance and their absence to work, as well as to prevent diseases related to work, such as lumbar pain and heart diseases (ALDANA *et al.*2005).

According to related and observed literature, the most common actions promoted in work environment are anti-smoking and anti-stress and, first of all, actions trying to incentive the practice of physical activities and the adoption of suitable nourishing (SHAIN; KRAMER, 2004).

The necessity of these actions may be justified, among others, by the great defiance of creating conditions to maintain an energetic balance among workers in a straight relation to the kind of activity they practice at work (those ones, for instance, of whom a seated position is required for the most part of the time), a rigid time-table and an unbalanced ingestion of meals rich in fat and sugar (ENGBERS *et al.* 2005)

The aim of this study was to analyze the quality of life (QL) and to investigate it according to physical activity practice frequency of the employees of a great Brazilian company that take part in a corporative program of physical activity.

MATERIALS AND METHODS

Sample

It was accomplished a sectional study in which 246 individuals participated voluntarily, enlisted by the Centro de Promoção de Saúde (CPS). The CPS was developed into partnership with Escola de Educação Física e Desportos da Universidade Federal do Rio de Janeiro to attend the Brazilian company employees that ran the risk of developing cardiovascular diseases and bone and muscle alterations.

CPS aims to improve the quality of life, welfare, physical and mental health of its participants through interventions of nutritional order and physical activities.

Measures

Quality of Life

Quality of life was evaluated through the WHOQOL-Bref questionnaire, in its Portuguese version (FLECK *et al*., 2000), which was filled in by people engaged in the research .This questionnaire is composed by 26 questions divided into 4 dimensions of QV: Physical, Psychological, Social Relationship and Environment besides two general questions of QV (How do you evaluate your QL? and How satisfied are you with your health?) Each answer is scored with points from 1 to 5 (*Likert* Scale) from lower to higher position. Thus, higher scores represent great satisfaction with QV. In each dimension and in the sum up of the two general questions of QV the scores varies from 4 to 20 points.

Weekly Rate of Training (WRT)

WRT was calculated dividing the number of sessions of training , ever since the entering in CPS, carried out in the interval between one and three months before the answers in to the questionnaires, into the amount of the weeks of the same period. After the calculation of the variable, individuals were classified in two groups: WRT = 3x/ week and 3x/ week.

Statistical Analyses

Results were expressed through the averages and standard-deviation. The Mann-Whitney test was used in variables with non-parametric distribution. The level of significance adopted was of 5% and the analyses were accomplished in the SPSS 13.0 *for Windows*.

This study was approved by the Ethic Committee in Research of the Instituto de Saúde Coletiva of Federal University of Rio de Janeiro (IESC/UFRJ). All subjects gave their written consent and the protocol was approved by the local Ethics Committee.

RESULTS

General characteristics of the sample are contained in the Table 1. Individuals of male gender represent the most part of the sample, what corresponds to 77,2% of the total amount. Nearly 69% was older than 40 years old, what characterizes a population composed of older adults. The greater proportion of individuals (approximately 43% presented BMI classified as overweight. The WRT average observed was 2,5 what indicates a difficulty in keeping an ideal weekly attendance.

With regard to WHOQOL-BREF scores, it was observed that the greater distance occurred between physical dimension, that reached highest average score, and environment, that on the contrary, reached the lowest average score (Graphic 1). Considering TST, differences were evident between groups in every dimension evaluated. Table 2 presents the average scores of WHOQOL-BREF according to WRT.

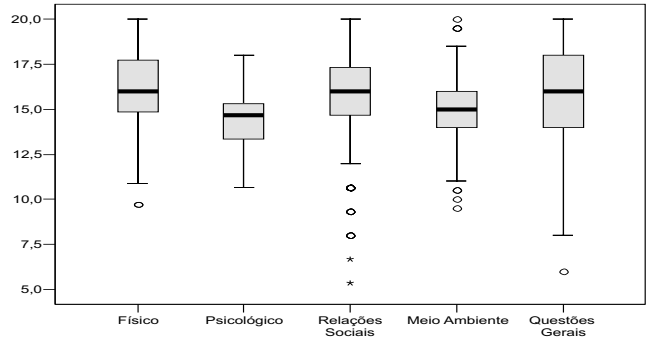
Table 1 - General characteristics of the sample

Variable	*Mean*	*Standard-deviation*
Age (years)	42,6	9,0
Weight (kg)	78,4	14,0
Body Mass Index (BMI; kg/m^2)	26,5	3,8
WRT	2,5	1,9

Table 2 - Mean scores (± standard-deviation) of WHOQOL-Bref according WRT

Domain	*WRT*	*n*	*Mean ± standard-deviation*	p-value (Mann-Whitney)
Physical	? 3x/week	78	16,0 ± 2,2	0,96
	< 3x/week	168	16,0 ± 1,9	
Psychological	? 3x/week	78	14,5 ± 1,6	0,97
	< 3x/week	168	14,5 ± 1,4	
Social Relationship	? 3x/week	78	15,5 ± 2,7	0,63
	< 3x/week	168	15,5 ± 2,8	
Environment	? 3x/week	78	15,0 ± 2,1	0,47
	< 3x/week	168	15,0 ± 1,7	
General Questions	? 3x/week	78	15,5 ± 2,6	0,46
	< 3x/week	168	15,5 ± 2,5	

Graphic 1 -WHOQOL-Bref score distribution of the investigated sample



DISCUSSION

In general, the studied sample shows satisfaction with QV, considering the scope of scores variation in the evaluated dimensions by WHOQOL-BREF (minimum=4, maximum=20 and median=12). The lowest scored, that means, environment, reveals an average level of satisfaction of 68,7% and, at the opposite extreme, the physical dimension as the highest scored corresponds to an average level of satisfaction of 75%.

These results points to more favorable conditions concerning questions related to pain, discomfort, energy and tiredness, sleep and rest, mobility, daily activities, dependence on medicine or treatments, and performance at work. On the others hands, questions related to physical security and protection, conditions at home, financial resources, transport, leisure time and physical environment are less favorable to the population of the study. It is important to emphasize that in spite of the environment dimension may have been the lowest scored, the studied population gives evidence of being composed by people with a positive perception of QV, since all dimensions have presented an average score equivalent to nearly 69% of the highest permitted score.

The fact of the greater part of these people were sedentary until their entry in Cps, the introducing of physical activities although within distinct frequency, may be contributing effectively to physical and mental wellness and QV of them, so that no differences were detected at all between the groups. Therefore, this conclusion may be limited for several reasons such as the difference of the historic of physical activities of the participants of the group. It is possible that some of these people had some kind of physical activity beforehand, fact that was not available. Thus, even though participants have the TST in common within each extract, their historic of physical activity may be different, what may determine differences in perception of QV. Moreover, the difficulty to obtain more information as for physical activity extra CPS is a restrictive factor to this conclusion, because individuals may be engaged in other kind of physical activities besides those of CPS, such as swimming, dancing and tennis and CPS may underestimate their physical activity. Finally, other limitation lies in the sectional nature of the study (Luiz, 2004) and in the fact of inexistent a group of control (employees who didn't come to program) what could permit the comparison between results.

CONCLUSION

Our results suggest that the program of health promotion undertaken by the company, independent from the weekly frequency of its participants, besides another points not controlled by the study, is contributing positively to improve welfare and quality of life of Company's employees.

REFERENCES

ALDANA, S. G. *et al.* Financial impact of a comprehensive multisite workplace health promotion program. **Preventive Medicine**, v.40, p.131 - 137. 2005.

ENGBERS, L. H. *et al.* Worksite health promotion programs with environmental changes - A systematic review. **American Journal of Preventive Medicine**, v.29, n.1, p.61-70. 2005.

FLECK, M. P. A. *et al.* Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-Bref". **Revista de Saúde Pública**, v.34, n.2, p.178-183. 2000.

LUIZ, R. R. Associação estatística em epidemiologia. In: MEDRONHO, R. A*., et al*. **Epidemiologia**. São Paulo: Atheneu, v.1, 2004. p.309-334.

ORLEY, J.; SAXENA, S.; HERRMAN, H. Quality of life and mental illness. **British Journal of Psychiatry**, v.172, p.291-293. 1998.

SHAIN, M.; KRAMER, D. M. Health promotion in the workplace: framing the concept; reviewing the evidence. **Occupational and Environmental Medicine**, v.61, p.643-648. 2004.

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HEALTH PROMOTION PROGRAM AND QUALITY OF LIFE
ABSTRACT

In recent years, companies have adopted programs to promote health with the intention of making the worker healthier, happy and improve their well-being and quality of life (QL), like this prevent diseases. They are other objectives like the reduce costs spent with medical assistance and absence at work and improvement of the productivities. Objective: To investigate the quality of life of employees of a Brazilian state company, participating in a program of physical activity corporate. Methods: It was a sectional study in which participated voluntarily 246 individuals (42.6 ±9.0 years). The QL was evaluated by WHOQOL - Bref questionnaire, which includes four areas: Physical, Psychological, Social Relations and Environment, in addition to two questions overall QL. The maximum score allowed in each area is 20 points - representative of greater satisfaction with the QL. The frequency of physical activity was assessed by Weekly Rate of Training (WRT). The results were expressed by averages and standard deviations. The comparison between the groups was did by Mann-Whitney test ($p<0.05$). Results: The largest distance was observed between the fields Physical (which achieved higher average score) and the Environment (which achieved lower average scores). There were no observed differences between groups in all areas evaluated ($p>0.05$) when the WRT was considered. This result indicates that the program of promoting health, established by the company's, independent weekly frequency, may be contributing in a positive way to improve the welfare and QL of the employees. Conclusion: Considering the spectrum of variation of scores of the areas evaluated by WHOQOL - Bref, the sample studied, in general, is satisfied with the QL. Other factors, not controlled in the study, may be contributing to the results.

KEYWORDS: Quality of life, satisfaction, Employees.

PROMOTION DE SANTÉ ET DE QUALITÉ DE VIE
RESUMÉ

Au cours des dernières années, les entreprises ont adopté des programmes pour promouvoir la santé des travailleurs. Les objectives sont, surtout, maintenir la santé, la bonheur, le bien-être et la qualité de vie (QV) du travaillers. Associé a cettes but il y a aussi le desir de réduire les coûts avec l'assistance médicale, l'absence au travail, et de cet façom, augmenter la productivité. Objectif: Vérifie la QV des employés participant de un programme d'activité physique dans une entreprise brésilienne. Méthodes: Il s'agit d'une étude seccional dans lequelle 246 (42,6 ±9,0 annés) travailleurs ont participé volontairement. Le QV a été évaluée par le questionnaire *WHOQOL - Bref* qui comprend quatre domaines: *Physique*, *Psichologique*, *Relations Sociales* et de l'*Environnement*. Deux otres questions général sur le QV sont faites de plus. Le score maximum possibles dans chaque domaines est 20 points, qui représentant la plus grande satisfaction avec la QV. La fréquence de l'activité physique a été évaluée par le Taux Hebdomadaire de Trainemente (THT). Les résultats ont été exprimés par les moyennes et les écarts. La comparaison entre les groupes a été fait par le test *Mann - Whitney* ($p>0,05$). Résultats: La plus grande distance a été observée entre les domaines *Physiques* (qui ont atteint le *score* moyen plus élevé) et l'E*nvironnement* (qui ont atteint le *score* moyenne plus faible). Il n'est pas observé des diferences entre les groupes, dans tous les domaines évalués ($p>0,05$), lorsque le THT est envisagée. Cet résultat indique que le programme de promotion de la santé, mis en place par la entreprise, contribue de façon positive à améliorer le bien-être et la qualité de vie des fonctionnaires, independant de la fréquence hebdomadaire. Conclusion: En tenu compte de les resulttat les travailleurs étudié présentent satisfait avec la QV. Nous ressaltons qui d'autres facteurs, qui ne sont pas contrôlés dans l'étude, pourraient aussi contribuer à des résultats.

MOTS CLES: Qualité de la vie, Satisfaction, Employés.

PROMOCIÓN DE LA SALUD Y CALIDAD DE VIDA
RÉSUMEN

En los últimos años, las empresas han adoptado programas para promover la salud con la intención de que el trabajador ceja más sano, feliz y para mejorar su bienestar y calidad de vida (CV), e de este modo prevenir enfermedades. Existen otros objetivos como el de reducir los costos con la asistencia médica y la ausencia en el trabajo y con a mejora de la productividad. Objetivo: Investigar la CV de los empleados de una empresa estatal brasileña, que participan en un programa de actividad física en la empresa. Métodos: Se trata de un estudio en el que participaron voluntariamente 246 personas (42,6 ±9,0 años). La CV fue evaluada por le cuestionario WHOQOL - Bref, que incluye cuatro áreas: *Física, Psicológica, Relaciones Sociales* y *Medio Ambiente,* además de dos preguntas generales acerca de la CV. La puntuación máxima permitida en cada área es 20 puntos - representante de una mayor satisfacción con el CV. La frecuencia de la actividad física se evaluó por Tasa Semanal de la Formación (TSF). Los resultados se expresaron por las medias y las desviaciones estándar. La comparación entre los grupos se hicieron por la prueba de *Mann-Whitney* ($p <0,05$). Resultados: La mayor distancia se observó entre les áreas *Física* (que alcanzó mayor puntuación media) y *Medio Ambiente* (que alcanzaron puntuaciones medias más bajas). No se observaron diferencias entre los grupos en todas las áreas evaluadas ($p> 0,05$) cuando se considera el TSF. Este resultado indica que el programa establecido por la empresa de promoción de la salud, independiente de la frecuencia semanal, puede contribuir de una manera positiva para mejorar el bienestar y la CV de los empleados. Conclusión: La muestra estudiada, en general, está satisfecha con el CV. Otros factores, no controlados en el estudio pueden contribuir con estos resultados.

PALABRAS CLAVE: Calidad de vida, Satisfacción, Trabajadores.

PROMOçãO DE SAúDE NO AMBIENTE DE TRABALHO E QUALIDADE DE VIDA
RESUMO

Nos últimos anos, empresas têm adotado programas de promoção de saúde com a intenção de tornar o trabalhador mais saudável, satisfeito e produtivo, melhorar o seu bem-estar e a qualidade de vida (QV), reduzir os custos despendidos com assistência médica, a ausência no trabalho e prevenir doenças a ele relacionadas. Objetivo: investigar a qualidade de vida de funcionários de uma empresa estatal brasileira que participam de um programa de atividade física corporativa. Métodos: Foi realizado um estudo seccional no qual participaram voluntariamente 246 indivíduos (42,69,0 anos). A QV foi avaliada pelo questionário WHOQOL-Bref, que compreende quatro domínios: *Físico, Psicológico, Relações Sociais* e *Meio Ambiente,* além de mais duas questões gerais de QV. O escore máximo permitido em cada domínio é de 20 pontos, sendo representativo de maior satisfação com a QV. A freqüência de atividade física foi avaliada pela Taxa Semanal de Treinamento (TST). Os resultados foram expressos através de médias e desvios-padrões e para a comparação dos grupos foi utilizado o teste *Mann-Whitney* (p0,05). Resultados: A maior distância observada foi entre os domínios *Físico* (que alcançou maior pontuação média) e *Meio Ambiente* (que alcançou menor média de pontuação). Ao considerarmos a TST, não foram evidenciadas diferenças entre os grupos em todos os domínios avaliados (p 0,05). Esses resultados evidenciam que o programa de promoção de saúde instituído pela empresa, independente da freqüência semanal mantida por seus freqüentadores, podem estar contribuindo de uma maneira positiva para a melhoria do bem estar e da qualidade de vida dos funcionários. Conclusão: A amostra estudada apresenta-se, de uma maneira geral, satisfeita com a QV. Observa-se que outros fatores, não controlados no estudo, podem estar contribuindo para os resultados encontrados.

PALAVRAS CHAVES: Qualidade de vida, Satisfação, Trabalhadores.