105 - THE TREATMENT OF EDUCATION AND HEALTH: OPPORTUNITIES REVEALED WITHIN THE SCHOOL AMBIT

ANA PATRÍCIA SIQUEIRA TAVARES FALCÃO
Adjunct Professor at the Federal Institute of Education, Science and Technology of Pernambuco and at the University of Pernambuco – ESEF/UPE, Recife – PE, Brazil

MOACYR CUNHA FILHO
Adjunct Professor at the Federal Rural University of Pernambuco, Recife – PE, Brazil

MANOEL DA CUNHA COSTA
Adjunct Professor at the University of Pernambuco – ESEF/UPE, Recife – PE, Brazil
Florisbela de Arruda Câmara e Siqueira Campos
Full Professor at the Center of Physical Education CAV – UFPE,
Vitória de Santo Antão – PE, Brazil
apstfalcao@hotmail.com

INTRODUCTION

Currently there are several discussions present in the ambit of education and health to develop strategies which aim to stimulate the creation of a culture of health in the most different social actors present in the school environment.

It is important to be noted that it is not enough to only bring the generic information neither to take isolated actions, we need to go much further because the information itself does not guarantee the valorization of the knowledge about health, the option of living healthy nor the creation of a culture of health. In school life, health can be treated through the various curriculum components, pointing out that physical education carries within its bulge the movement that materializes itself in dealing with its contents (gymnastics, games, sports, fights and dances), as well the health can be broached by projects which go beyond the class time of any curricular component, assigning to all the responsibility to discuss, encourage, develop and live the health, since taking care of the health is the same as watching over the school's greatest asset: people!

It is known that the urban sprawl, the change of values, the lifestyle adopted (Nahas, 2006) and the increase of life expectancy are pointing to a picture of obesity epidemic in modern societies and the coronary disease is seen as the most important cause of death among adults worldwide (Pitanga and Lessa, 2007)

Thus, this study aims to describe an experience of school health from a theoretical and practical experience in the school environment revealed in a pilot project "Servant's Health" involving servers of a campus of the Federal Institute of Education, Science and Technology of Pernambuco (IFPE), analyzing the lifestyle, discussing issues such as physical activity, nutrition, preventive behavior, stress control and social relationship as well as evaluating some anthropometric indicators of obesity, cardiovascular and metabolic risk.

METHODOLOGY

Based on theoretical and practical reflections on education and health, it was developed a pilot project on treatment of health at the school from an experience with the servants of the Federal Institute of Education, Science and Technology of Pernambuco (IFPE), campus Vitória de Santo Antão in the years 2008 (2nd semester) and 2009 (1st semester), aiming to analyze the lifestyle discussing issues such as physical activity, nutrition, preventive behavior, stress control and social relationship, as well as evaluating some anthropometric indicators of obesity, cardiovascular and metabolic risk.

Initially it was elaborated a project with the theme "Servant's Health" held in three phases: Phase I: Theoretical Experience (20 hours), Phase II: Evaluation of lifestyle and Human Performance (application of the pentacle of wellness and the questionnaire of habitual physical activity, anthropometric, neuromotor evaluation (localized abdominal strength: RML and flexibility (FLEX), blood pressure (PA), glucose levels (TGli) and resting heart rate (FCrepouso) (30 hours) and Phase III: Experience three times a week involving the soccer practice, gymnastics, weightlifting and dance accompanied by physical education teachers (50 hours).

The sample consisted of 53 individuals, 34 females and 19 males evaluated at IFPE - Campus Vitória de Santo Antão – PE, aged 21 to 64 years. The inclusion criteria for the selection of the sample were: belonging to the staff of the IFPE and showing no temporary or permanent physical problem that could obstruct the evaluation.

The instrument used to evaluate the lifestyle was the pentacle of wellness Nahas (2006), the questionnaire of habitual physical activities developed by Patê apud Nahas (2006) and anthropometric measurements used were: the total body mass, measured in Filizola weighing scale with an accuracy of 100 grams, height measured in a wooden stadiometer and waist circumference measured in centimeters using a nonextensible tape GRAFCO, 150 cm long and with an accuracy of 0,1 cm following the recommendations of Gordon et al. (1988) and Costa (2001).

It were estimated then some anthropometric indicators such as: the Body Mass Index (IMC), waist to hip ratio (RCQ), waist circumference (CC) and waist to height ratio (RCE).

The cut points used were those suggested by Lee et al (2008) as being widely used to identify metabolic and coronary risks and the level of obesity as being IMC $\geqslant$ 30kg/m2 and RCE 0.50 for men and women, CC 90 cm and 80cm, RCQ 0.90 and 0.85 for men and women respectively.

Statistical analysis was performed using the program SPSS version 10.0. The data normality was tested using the Kolmogorov-Smirnov test. To analyze the behavior of the variables it was performed a descriptive analysis represented by the average, standard deviation, minimum and maximum values. We applied the Student's t-test and the Mann-Whitney test to compare the averages of the variables. We used the Pearson and Spearman linear correlation and to identify the relationship between the variables of the study.

RESULTS

It was used the Kolmogorov-Smirnov test to verify the normality of distribution of the used variables, which found out that all distributions show normality for p> 0.05. Descriptive statistics were performed using the frequency distribution and they are shown in Tables 1 and 2.

Table 1: Profile of the individual lifestyle of men aged between 21 and 56 years

Variable	Answers (%) (n = 17) No	Sometimes	Almost always	Always
NUTRITION				
a.Consumes of at least 5 portions of fruits and vegetables	15,8	47,4	10,2	15,8
b.Avoids greasy foods	15,8	31,6	31,6	10,5
c. Eats 4 to 6 meals a day and a good breakfast	21,1	31,6	26,3	10,5
PHYSICAL ACTIVITY				
d.Performs 30min of physical activity 5x/week	42,1	26,3	5,3	15,8
e.Performs at least 2 times/week strength exercises and stretching	52,6	21,1	5,3	10,5
f. Walks or bicycle as a mean of transport/ prefers ladder to lift	31,6	31,6	21,1	5,3
PREVENTIVE BEHAVIOR				
g. Knows his/her PA and cholesterol levels	10,5	10,5	31,6	36,8
h. No smoking and no drinking alcohol (or does with moderation)	5,3	15,8	5,3	63,2
i.Respects the traffic laws	5,3	5,3	21,1	57,9
SOCIAL RELATIONSHIP				
j. Cultivate friends	--------	---------	31,6	57,9
k.Takes part of meetings with friends, sports, social groups	5,3	52,6	21,1	10,5
l. Participates actively in the community	15,8	26,3	31,6	15,8
STRESS CONTROL				
m. Reserves 5 min/day to relax	10,5	15,8	15,8	42,1
n.Maintains a discussion without becoming stressed	21,1	26,3	31,6	5,3
o. Balances work and leisure	15,8	42,1	10,5	10,5

Legend: x/week = times a week; min/day = minutes a day;
PA = Blood pressure.
P.s.: Two (2) men did not answer the questionnaire

Table 2: Profile of the individual lifestyle of women aged 21 to 64 years

Variables	Answers (%) (n = 29) No	Sometimes	Almost always	Always
NUTRITION				
a.Consumes of at least 5 portions of fruits and vegetables	20,6	44,1	5,9	14,7
b.Avoids greasy foods	17,6	32,4	26,5	8,8
c. Eats 4 to 6 meals a day and a good breakfast	17,6	29,4	26,5	11,8
PHYSICAL ACTIVITY				
d.Performs 30min of physical activity 5x/week	47,1	20,6	8,8	8,8
e.Performs at least 2 times/week strength exercises and stretching	52,9	20,6	8,8	2,9
f. Walks or bicycle as a mean of transport/ prefers ladder to lift	35,3	23,5	20,6	5,9
PREVENTIVE BEHAVIOR				
g. Knows his/her PA and cholesterol levels	26,5	17,6	8,8	32,4
h. No smoking and no drinking alcohol (or does with moderation)	11,8	5,9	2,9	64,7
i.Respects the traffic laws	--------	---------	11,8	73,5
SOCIAL RELATIONSHIP				
j. Cultivate friends	--------	---------	14,7	70,6
k.Takes part of meetings with friends, sports, social groups	11,8	26,5	38,2	8,8
l. Participates actively in the community	14,7	29,4	23,5	17,6
STRESS CONTROL				
m. Reserves 5 min/day to relax	26,5	17,6	14,7	26,5
n.Maintains a discussion without becoming stressed	14,7	35,3	29,4	5,9
o. Balances work and leisure	29,4	26,5	23,5	5,9

Legend: x/week = times a week; min/day = minutes a day;
PA = Blood pressure.
P.s.: Five (5) women did not answer the questionnaire

There was no significant difference between men and women regarding to the aspects of lifestyle. However, it was identified a percentage over 50% of respondents who said that they perform no physical activity. (Tables 1 and 2).

From the questionnaire of habitual physical activity, it was detected a high number of inactive individuals (64%) and we found out that there was no significant difference regarding to the daily work activities and leisure time between men and women (p = 0 , 48) (Chart 1).

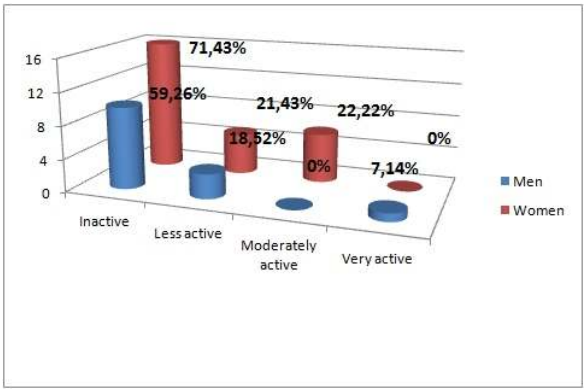


Chart 1: Diagnosis of usual level of physical activity of the servants of IFPE Campus Vitória de Santo Antao, 2008/2009.

It can be seen in Table 1 that there are no significant differences between men and women in regarding anthropometric indicators.

It was Identified a correlation between age and IMC (r = 0.55), CC (r = 0.53) and RCE (r = 0.60) for men and women. It is noteworthy that only RCE correlated with the studied aspects related to the lifestyle such as: nutrition (Cho = 0.30), physical activity (Cho = 0.51) and stress level (cho = - 0.40).

Note also that from the 18 men and 23 women who underwent anthropometric measurements, having as reference to the cut-off points mentioned above, although the IMC points only 5.56% of men and 17.39% of women are obese, the other indicators show a high percentage of individuals who were above the cut-off points adopted such as: RCQ 72.22% and 60.87%, CC 50% and 78.26%, RCE 50% and 78.26% for men and women respectively.

Table 1: Descriptive statistics of age and anthropometric indicators of men and women

Variable	MINIMUM		MAXIMUM		AVERAGE		DEVIATION	
	M	W	M	W	M	W	M	W
Age (years)	21	21	56	64	37,06	36,65	11,20	13,13
IMC	21,08	18	34,26	34	25,17	24,42	3,69	4,32
RCQ	0,87	0,78	103	103	21,07	5,3	41,71	21,29
CC	76	72	104	105	90,87	87,81	7,66	10,17
RCE	0,44	0,46	0,61	0,70	0,52	0,55	0,05	0,07

Legend: M = man; W = woman
p = 0,05 (Student's T-test)*

DISCUSSION

Societies are constantly evolving ... There are many changes observed in people's way of life, values, choices and there are several discussions which come along with these changes, such as: body care, the search for quality of life , wanting to live well in a healthy way, the pursuit for happiness (VICENTE et al, 2009) and all these discussions are present within the ambit the school.

Dias et al (2011) in one of his researches on worker's health grabs the attention to workers who become ill, mutilated or die as a result of their professional activities and also says that actions for continuing education in health, as well as continuous and participatory pedagogical actions should be introduced.

Some researches have been developed in schools in order to describe strategies to produce health and to deal with everyday adversities and to fight the disease and desistance of teachers from their teaching activities. Almeida et al (2011) conducted a study in a public school in the state in the Espírito Santo using an ergological approach which aims to understand and transform the contexts in debate and confrontation, he said that "living healthy at work and in other spheres of life will always be the try of managing the meetings in which infidelities and histories come to light ". Health at work is related not only to the executed activities, but, in the unspoken words, to the choices made, and others.

As Nahas (2006) said, the individual lifestyle exerts an impact on the health of the individual. He defines lifestyle as a "set of habitual actions which reflect the attitudes, values and opportunities in people's lives". In this present study, the analysis of the lifestyle allowed to identify that the components physical activity, nutrition and stress control need special attention since they came closer over the negative health pole.

Pereira (2008) applied the instrument "pentacle of wellness" with the elderly (60 to 69 years old) in order to verify the relation between the regular practice of physical activity and lifestyle of the elderly. He found that participants have orientations and are well informed, they are active and seek to practice aiming further information about the assessed behaviors. That differs from the results found, especially regarding to the item physical activity where in this study it was found that 64% of the participants are classified as inactive, 42.1% and 47.1% of men and women, respectively, do not perform at least 30 minutes of walking 5 times a week, also 42.1% and 52.9% of men and women, respectively, do not perform strength exercise and stretching.

Geraldes et al (2006) also used the "Pentacle of wellness" with the collaborators of the Directorate of Sports and Leisure SESI - SP and found that the servants in the administrative area have more fragility in the components nutrition, physical

activity and preventive behavior. Study differs only in the last component, the preventive behavior which is presented as positive, and the stress control being added as negative.

The anthropometric indicators have been widely used to diagnose obesity, metabolic and coronary risk. Pitanga and Lessa (2006) pointed out that there are big controversies about the cut-off points adopted. They point out that these cut-off points change as the age goes by, thus they modify the discriminatory power of anthropometric indicators of obesity in women, where this behavior can be explained by the greater amount of visceral fat in women of advanced age, as it happened in the present study where it was found a higher percentage of women over the reference values used for RCQ, CC and RCE.

CONCLUSIONS

It was verified that the components nutrition, physical activity and stress control require further attention. It was verified a high percentage of inactive employees and with values of anthropometric indicators of obesity, cardiovascular and metabolic risk over the reference values. There is a need for developing exercise programs which aim to improve aspects related to the components of health-related fitness, as well as to spread the benefits of regular physical exercises. The experience along the II semester/2008 and I semester/2009 was very positive and it pointed to a need for developing other health-related interventions within the ambit of IFPE.

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THE TREATMENT OF EDUCATION AND HEALTH: OPPORTUNITIES REVEALED WITHIN THE SCHOOL AMBIT

ABSTRACT

This study aimed to describe an experience of health at the school from a theoretical and practical experience in the school environment revealed in a pilot project "Servant Health" involving servants of a Campus of the Federal Institute of Education, Science and Technology of Pernambuco (IFPE), analyzing the lifestyle, discussing issues such as physical activity, nutrition, preventive behavior, stress control and social relationship as well as assessing some anthropometric indicators of obesity, cardiovascular and metabolic risk. This is a descriptive comparative correlational study, where 53 civil servants were evaluated, being 19 male and 34 female. It was applied the instrument “pentacle of wellness”, the questionnaire of habitual physical activity also the IMC, RCQ, CC and RCE were measured. It was verified that the components physical activity, nutrition and stress control require further attention, 64% of the participants are inactive, there is no significant difference between men and women regarding to the components of the Pentacle of Wellness or to the habitual physical activities (p = 048). The RCE pointed a correlation with the components nutrition (Cho = 0.30), physical activity (Cho = 0.51), and stress control (Cho = - 0.40). It was also verified a correlation between the age and IMC (r = 0.55), CC (0.53) and RCE (r = 0.60). Thus, it was identified a high percentage of inactive employees and with values of anthropometric indicators of obesity, cardiovascular and metabolic risk over the reference values and lived experience points to a need for developing other health-related interventions within the ambit of the IFPE.

KEYWORDS: Education, Health, School.RESUME

LES VOIES DE L'ÉDUCATION ET DE LA SANTÉ: LES POSSIBILITÉS DIVULGUÉES À L'ÉCOLE

Cette étude a eu pour objectif principal décrire une expérience dans le domaine de la santé à l'école à partir d'une expérimentation théorique et pratique dans le milieu scolaire révélé dans un projet pilote "Santé des Employés' impliquant des employés d'un Campus du Institut Fédéral d'Éducation, Science et Technologie de Pernambuco (IFPE), en analysant le style de vie, en discutant des questions telles que l'activité physique, la nutrition, les comportements préventifs, la gestion du stress et les relations sociales, ainsi que l'évaluation de certains indicateurs anthropométriques de l'obésité, les risques cardiovasculaires et métaboliques. Il s'agit d'une étude comparative descriptive corrélationnelle qui a évalué 53 employés, lesquels étaient 19 hommes et 34 femmes. Nous avons utilisé le pentacle du bien-être, le questionnaire de l'activité physique habituelle et nous avons réalisé la mensuration de l'IMC, RCQ, CC et du RCE. On a constaté que les composants de l'activité physique, de la nutrition et de la gestion du stress requièrent davantage d'une attention particulière, 64% des participants sont inactifs, il n'y a pas de différence significative entre hommes et femmes en ce qui concerne les composantes du pentacle du bien-être ou les activités physiques habituelles (p = 048). La RCE a présenté une corrélation avec les composants nutritionnels (Cho = 0,30), l'activité physique (Cho = 0,51), et la gestion du stress (Cho = - 0,40). Il y avait aussi une corrélation entre l'âge et l'IMC (r = 0,55), CC (0,53)

et les RCE (r = 0,60). Ainsi, nous avons identifié un pourcentage élevé des employés inactifs avec les valeurs des indicateurs anthropométriques de l'obésité, risques cardiovasculaires et métaboliques au-dessus des valeurs de référence. L'expérience vécue montre un besoin de développement d'autres interventions liées à la santé au sein du IFPE.

MOTS-CLÉS: éducation, santé, école.

El TRACTO DE LA EDUCACIÓN Y DE LA SALUD: OPORTUNIDADES REVELADAS EN EL ÁMBITO ESCOLAR

RESUMEN

Este estudio tuvo como objetivo describir una experiencia de salud en una escuela a partir de una experiencia teórica y práctica en el ámbito escolar reveladas en un proyecto piloto "Salud del Servidor" envolviendo servidores de un Campus del Instituto Federal de Educación, Ciencia y Tecnología de Pernambuco (IFPE), analizando el estilo de vida, discutiendo temas como la actividad física, nutrición, comportamiento preventivo, control del estrés y relacionamientos sociales, así como la evaluación de algunos indicadores antropométricos de obesidad, riesgo cardiovascular y metabólico. Se trata de un estudio descriptivo comparativo correlacional, donde fueron evaluados 53 servidores, siendo 19 de género masculino y 34, femenino. Se aplicó el instrumento pentáculo de bienestar, el cuestionario de actividad física habitual y se realizó la medición de IMC, RCQ, CC y el RCE. Se encontró que los componentes de actividad física, nutrición y el control del estrés requieren más atención, el 64% de los participantes son inactivos, no hay diferencia significativa entre hombres y mujeres con respecto a los componentes del pentáculo de bienestar ni en las actividades físicas habituales (p = 048). La RCE presentó correlación con los componentes nutrición (Cho = 0,30), actividad física (Cho = 0,51), y el control del estrés (Cho = - 0,40). También hubo una correlación entre la edad y el IMC (r = 0,55), CC (0,53) y RCE (r = 0,60). Por lo tanto, ha sido identificado un alto porcentaje de los servidores inactivos y con los valores de los indicadores antropométricos de obesidad, riesgo cardiovascular y metabólico superiores a los valores de referencia. La experiencia vivida apunta a la necesidad de realizarse otras intervenciones relacionadas con la salud en el ámbito del IFPE.

PALABRAS CLAVE: educación, salud, escuela.

O TRATO DA EDUCAÇÃO E SAÚDE: POSSIBILIDADES REVELADAS NO ÂMBITO ESCOLAR...

RESUMO

Este estudo teve como objetivo descrever uma experiência da saúde na escola a partir de uma vivência teórica-prática no ambiente escolar reveladas em um projeto piloto “Saúde do Servidor” envolvendo servidores de um Campus do Instituto Federal de Educação, Ciência e Tecnologia de Pernambuco (IFPE), analisando o estilo de vida, discutindo questões como atividade física, nutrição, comportamento preventivo, controle do estresse e relacionamento social, bem como avaliando alguns indicadores antropométricos de obesidade, risco cardiovascular e metabólico. Trata-se de um estudo descritivo comparativo correlacional, onde foram avaliados 53 servidores, sendo do gênero 19 masculino e 34, feminino. Aplicou-se o instrumento pentáculo do bem-estar, o questionário de atividades física habituais e realizou-se a mensuração do IMC, RCQ, CC e RCE. Constatou-se que os componentes atividade física, nutrição e controle de estresse carecem de maiores atenções, 64% dos participantes são inativos, não existe diferença significativa entre homens e mulheres no que se refere aos componentes do pentáculo do bem-estar e nem nas atividades físicas habituais (p=048). A RCE apresentou correlação com os componentes nutrição (Cho=0,30), atividade física (Cho=0,51), e controle do estresse(Cho= - 0,40). Verificou-se também correlação entre a idade e o IMC (r=0,55), CC (0,53) e RCE (r=0,60). Assim, identificou-se um alto percentual de servidores inativos e com valores de indicadores antropométricos de obesidade, risco cardiovascular e metabólicos acima dos valores de referência e a experiência vivenciada aponta para uma necessidade de se realizar outras intervenções relacionadas à saúde no âmbito do IFPE.

PALAVRA CHAVES: Educação, Saúde, Escola.