

18 - KNOWLEDGE OF PHYSICAL EDUCATION'S STUDENTS ABOUT CANCER AND ITS RISK FACTORS

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doi: 10.16887/85.a1.18

INTRODUCTION

Cancer is a generic term used to describe a large group of diseases (more than 100) that can affect any part of the body (WHO, 2013). Lichtenstein, Varkasalo and Holm (2000) found that exposure to environmental factors has been accepted as the most responsible for causing cancer represents between 80-90% of cases.

Here in Brazil, is already the second largest cause of death, second only to cardiovascular diseases (BRAZIL, 2013). The data revealed that approximately 70% of all cancer deaths occur in low- and middle-income, and 30% of these deaths could be prevented (WHO, 2013).

Paradoxically, although recognized as a profession in the health, physical education in Brazil seems often not present in their curricula, courses or complementary activities to address, explore or produce knowledge on the subject "cancer" since it is a problem public health.

As a professional activity has been increasing in the last 5 years healthcare professionals in primary care and also the production of knowledge and scientific articles relating the sedentary state and fitness to multiple etiogênicos and therapeutic aspects of such evils respectively, is growing exponentially since the 1980s, supporting and justifying the inclusion of Physical Education Teacher in multiprofessional teams in health.

Reflecting this, the knowledge of the Physical Education Teacher of the pathophysiology of these diseases and the therapeutic aspects of physical training on the same showed a significant growth in the last two decades (AZEVEDO et al., 2010).

Following this same scenario, clinical and experimental studies involving the practice of physical training in the treatment or prevention of cancer has grown significantly, demonstrated encouraging results in recent years (PACELI, et al., 2012).

Still, according to a major study of meta analysis supported by Word International Cancer Research Found (2011) and Fong (2012) suggest regular physical activity as an important factor in the survival of patients with cancer survivors.

The restoration and maintenance of this functional capacity challenges to those who are already considered "cured" of cancer. For this and other reasons there is now a sufficient base logic that justifies the inclusion of exercise as an intervention during and after the different treatment modalities available today (ADAMSEN; QUIST; ANDERSEN, 2009).

The fundamental duty of preserving the health of beneficiaries of social responsibility implies physical education professional, and shall ensure safe, competent and updated, free speech data, negligence or even recklessness, making use of all knowledge, skill and experience work provided by their continuing academic education (AZEVEDO et al., 2010).

Thus, when considering the cancer and also the quality of the performance of a professional in a certain area depends primarily on the consistency of its training curriculum and finally, the increasing role of the Physical Education Teacher in multidisciplinary primary care teams, an analysis knowledge about physical education students about cancer seems fully justified. Our goal then was to assess the knowledge of undergraduate students of Physical Education about cancer, its risk factors and physical exercise.

METHODS

The study of epidemiologic employed methodology of data collection by applying crosscutting approach. The SurveyMonkey® (<http://surveymonkey.com>) digital platform was used for preparing and providing digital access a questionnaire response categorized through a link to SurveyMonkey®, through email, social networking and Facebook® directly from the Web Platform.

The Ethics Committee in Research of the University of Franca - UNIFRAN, approved the study under no 15394113.8.0000.5495 protocol.

Were invited to volunteer in the study, college students and Bachelor's Degree in Physical Education from the University Center for Ant - MG and the University of Franca - SP. 307 responses were collected by the platform, but only 217 responded to the questionnaire comprehensively thus allowing the analysis conditions.

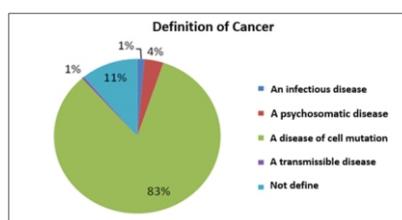
The questionnaire was given 29 questions (including the IC) sequenced structured answers with multiple choice and categorized with some options open depending on the question answers itself.

To perform the analysis of the data, models were employed descriptive statistical treatment of distributions from the sample normal by applying the Kolmogorov-Smirnov test, and percentages according to the groups of dependent variables. After this, the data were separated and analyzed descriptively.

RESULTS

29 years - 99 men and 118 women in the study aged 17 participated. The major difference found in the distribution of age groups, which showed a more than two times higher for students between 20 and 29 years (70% of the entire sample) percentage value, is also associated with a higher response rate from the definition of cancer as a disease cell mutation (68% of responses) shown in Figure 1, where the results questioning about the definition of cancer (83%) of the sample identified as cell mutation definition are presented, but 11% of the entire sample could not answer about what it comes.

Figure 1 - Percentage distribution of the categories of definition of cancer



SurveyMonkey®, 2014

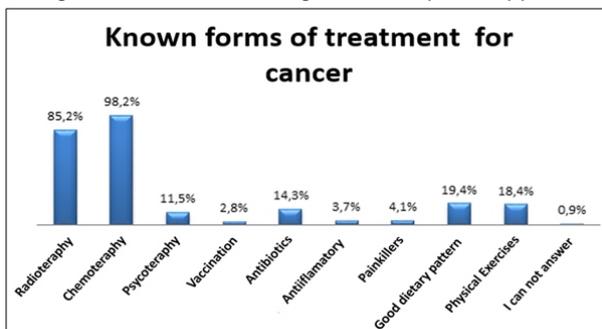
May represent an error of interpretation, we can consider that such responses may also have resulted because of greater life experience for the students of most ages.

Moreover, even if substantially less than the percentage of students who are not able to define the disease was significant and may suggest a weak curriculum on the subject.

Also in a smaller portion, volunteers responded that the disease is a psychosomatic illness (4%), infectious disease (1%) or even a type of disease (1%).

In Figure 2 are shown which forms known by the sample as a means of demonstrating the treatment of cancer chemotherapy (98.2%) and radiotherapy (85.2%) were considered as treatment for almost all answered. Moreover, vaccination was also considered by some (2.8%), even if a minority, as a form of cancer treatment. The physical exercise (18.4%) and the adoption of a good dietary pattern (19.4%) were also considered as a form of treatment, however caution is needed.

Figure 2 - Graph of percentage of occurrence of recognized therapeutic approaches to cancer.



SurveyMonkey®, 2014

Here, as expected the two most cited forms were chemotherapy and radiotherapy respectively. However two factors call attention to the responses. The first of them is that only 18.4% of students indicated the "Exercise" with a form of treatment for cancer, lower value than that indicated a "Good food pattern" (19.4%) as a treatment.

Although both practices are considered forms of adjunct treatment for cancer, according to some authors (Irwin; 2009, Lee et al.; 1994) and remains an important factor in preventing the second WCRF, the low number of notes reveals that students evaluated not recognize the Physical Exercises as such.

Already Figure 3 shows the percentage distribution of the response about which forms of cancer prevention are known by the individuals, whereas 86.2% believe the act of "No smoking" as one of the main forms of prevention, followed by the response "Good standard food" 77.9%, "Physical Exercise" 74.7% and "Do not drink alcohol" with 69.1%.

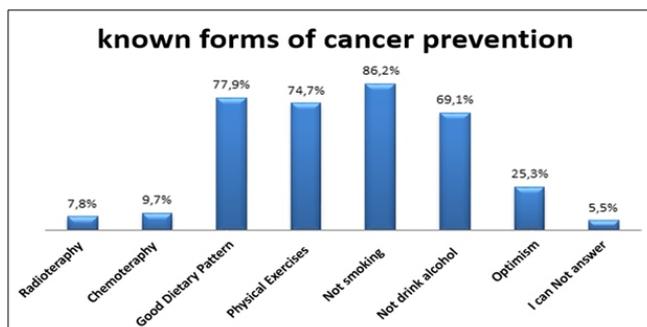
In this case, although a significant percentage in response (74.7%) and being among the four most frequently cited responses, the results related to Physical Exercise call attention once again to the responses was associated with age 20-29 years in 96% of cases, thus leaving again the possibility of an interpretation bias.

On the other hand, also showed a strong association response indicated that the chemotherapy (86% of cases) and radiotherapy (81% of cases) with age range 17-19 years.

These results seem to represent the students of Physical Education and younger still studying the first year of the course, confuse preventive treatment with deeds. This probably is related to a lack of curricular approach course on such information, in the early years of the course.

The results presented in Figure 3 also corroborate the study by Gomes and Carvalho (1999) one of the few available studies in the literature. In this case, the authors studied the knowledge of the knowledge public about cancer, detected also that most of their sample (59.9%) also considered the deprivation of tobacco as cancer prevention. In our study, we also found that the act of not smoking was the most chosen answer (86.2%) as a means of cancer prevention. In addition, the responses of "physical exercises" was associated with 90.1% "No smoking".

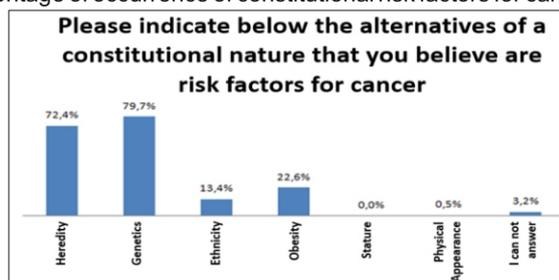
Figure 3 - Graph of percentage of occurrence of preventive ways for cancer



SurveyMonkey®, 2014

On the question of the knowledge of risk factors of a constitutional nature that the person believes may assist in development of cancer (Figure 4), the factors "Genetics" (79.7%) and "Inheritance" (72.4%) were the most answered by the sample, followed by "Obesity" (22.6%).

Figure 4 - Graph of percentage of occurrence of constitutional risk factors for cancer.



SurveyMonkey®, 2014

Regarding risk of behavioral factors "frequent exposure to the sun" (84.3%), the "Tobacco use" (83.9%) and "frequent exposure to radiation" (82.9%) were the response more commonly reported by the sample.

These correct and expected results reveal that even though a small group recognizes obesity as a risk factor. Such a condition reveals a gap of students with latest information on the subject, since for almost a decade, according to the World Health Organization the obesity is identified with an important risk factor for cancer development.

When asked about what would be physically active, according to the World Health Organization for each of them, only 13.4% answered that they were practicing regular physical exercise for at least 5 times per week, mild to moderate intensity for a minimum of 30 continuous minutes. The majority of responses (63.1%) were noted at least 3 times per week on alternate days of mild to moderate intensity, for a continuous period of 30 minutes. The percentage values are shown below in Figure 5.

Figure 5 - Graph of percentage of occurrence of the meaning of being physically active, according to WHO.



SurveyMonkey®, 2014

This is alarming, what is striking is that just over 13% of the sample (distributed between the two age groups) pointed out the correct answer, once this is a basic knowledge of the field of information and content formation of the Physical Education Teacher and thus reveals the low knowledge of the students on the basic aspect of their area of expertise in the healthcare field.

Again as in the previous cases the lack of studies on the subject or correlating these variables correlated to the field of knowledge or curriculum content in student education, hinders further analysis of the results.

Another important revelation of this group result is that 18.4% of students recognized the "Exercise" as an adjunctive form of therapy for cancer (data not shown on graph).

Concluding, were asked whether they believed that an active lifestyle and a good diet pattern can or could help prevent the onset of cancer, and almost entirely (90.7%) of the answers were yes and help avoid 6.5% said they did not believe that exercise and good nutrition has the potential to help the non-emergence of the disease. The remaining 2.8% said they did not know how to respond.

CONCLUSION

The results suggest that the greater the student's time in the course of most physical education (veterans) is knowledge about cancer compared to those beginning the course. Yet a significant portion of this sample could not answer what is cancer.

The literature is virtually nonexistent issue not allowing a comparison of results. Still on the variables "obesity is a risk factor" and "vaccination is a form of prevention" (even if for a few types of cancers) the results allow us to conclude about the lack of updated knowledge on the subject.

Revealed the existence of a need to include additional disciplines or activities on cancer in the curriculum of the courses of physical education, given the growth of health professional in multidisciplinary teams (SUS / NASF) thereby targeting the best preparation as an agent of Health Promotion.

Further studies with different methodologies are needed for further clarification on the matter.

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KNOWLEDGE OF PHYSICAL EDUCATION'S STUDENTS ABOUT CANCER AND ITS RISK FACTORS

ABSTRACT

Introduction: The cancer cases has increased significantly worldwide, mostly from the last century, and is today one of the most important public health problems worldwide. As a profession in the health, physical education professional in Brazil seems often not present in their curricular or complementary disciplines that address activities explore or produce knowledge on the subject. **Objectives:** This study aims to evaluate and score the knowledge of university physical education students about cancer, its risk factors and their relationship with a sedentary lifestyle. **Materials and Methods:** This is a study of epidemiologic, cross-sectional, population-based, where 217 students participated voluntarily aged between 17 and 29, originating from two IES is an established in the Midwest Region of Minas Gerais and other in the northern region of the state of São Paulo. The volunteers answered a questionnaire developed by the researchers for this purpose, with the Survey Monkey platform. **Results and Discussion:** In this study involved 99 men and 118 women with predominant age range of responses 20 - 29 years, equivalent to 70% of all responses. It was observed that 11% of the sample could not answer the definition of cancer but in contrast, 90.3% acknowledge a sedentary lifestyle and eating habits as risk factors. Only 22.6% recognized obesity as a risk factor for developing cancer, and a smaller percentage yet (13.4%) knew the correct concept of what being physically active according to the WHO. Verified the existence of the need for inclusion of subjects / activities on the subject in the curriculum of the course in Physical Education with a view to increasing the participation of these professionals in multidisciplinary teams working in health promotion.

KEYWORDS: Cancer. Physical education. Physical exercise.

CONNAISSANCE DES ÉTUDIANTS DE COURS DE L'ÉDUCATION PHYSIQUE SUR LE CANCER ET SES FACTEURS DE RISQUE

RÉSUMÉ

Introduction: Les cas de cancer a considérablement augmenté dans le monde entier, la plupart du siècle dernier, et est aujourd'hui l'un des plus importants problèmes mondiaux de santé publique les. Comme une profession de la santé, de l'éducation physique au Brésil semble pas souvent présents dans leurs programmes ou disciplines complémentaires portant sur les activités, d'explorer ou de produire des connaissances sur le sujet. **Objectifs:** Ce projet vise à évaluer et à la connaissance des étudiants d'éducation physique de l'université sur le cancer, ses facteurs de risque et leur relation avec un mode de vie sédentaire. **Matériel et méthodes:** Cette étude épidémiologique de coupe transversale, basée sur la population, où 217 élèves ont participé volontairement âgés entre 17 et 29, provenant de deux IES est un établi dans la région du Midwest de Minas Gerais et autre dans la région nord de l'État de São Paulo. Les bénévoles ont répondu à un questionnaire mis au point par les chercheurs à cet effet, avec la plate-forme Survey Monkey. **Résultats et discussion:** Dans cette étude a porté sur 99 hommes et 118 femmes avec prédominante tranche d'âge de réponses de 20 à 29 ans, l'équivalent de 70% de toutes les réponses. Il a été observé que 11% de l'échantillon ne pouvait pas répondre à la définition de cancer, mais en revanche 90,3% reconnaître un sédentaires habitudes de vie et alimentaires comme facteurs de risque. Seulement 22,6% ont reconnu l'obésité comme un facteur de risque de développer un cancer, et un pourcentage plus faible encore (13,4%) connaissaient le concept correct de ce que l'activité physique selon l'OMS. Vérifié l'existence de la nécessité d'inclure des sujets / activités sur le sujet dans le programme du cours d'éducation physique en vue d'accroître la participation de ces professionnels dans des équipes multidisciplinaires travaillant dans la promotion de la santé.

MOTS-CLÉS: Cancer. L'éducation physique. L'exercice physique.

CONOCIMIENTO DE LOS ESTUDIANTES DE LA ASIGNATURA DE EDUCACIÓN FÍSICA SOBRE EL CÁNCER Y SUS FACTORES DE RIESGO

RESUMEN

Introducción: Los casos de cáncer ha aumentado considerablemente en todo el mundo, sobre todo a partir del siglo pasado, y que hoy es uno de los más importantes problemas de salud pública en todo el mundo. Como una profesión en la salud, la educación física en Brasil a menudo no parece presente en sus planes de estudio o disciplinas complementarias que abordan actividades, explorar o producir conocimiento sobre el tema. **Objetivos:** Este proyecto tiene como objetivo evaluar y puntuar los conocimientos de los estudiantes universitarios de educación física sobre el cáncer, sus factores de riesgo y su relación con un estilo de vida sedentario. **Materiales y métodos:** Se trata de un estudio epidemiológico de corte transversal, basado en la población, en el que participaron 217 estudiantes voluntariamente con edades comprendidas entre 17 y 29 años, procedentes de dos IES es una establecida en la Región Medio Oeste de Minas Gerais y otros en la región norte del estado de São Paulo. Los

voluntarios respondieron un cuestionario desarrollado por los investigadores para este fin, con la plataforma de Survey Monkey. Resultados y Discusión: En este estudio participaron 99 hombres y 118 mujeres con rango de edad predominante de las respuestas de 20 - 29 años, equivalentes al 70% de todas las respuestas. Se observó que el 11% de la muestra no podía responder a la definición de cáncer, pero en contraste el 90,3% reconoce un estilo de vida y hábitos alimenticios sedentarias como factores de riesgo. Sólo el 22,6% reconoce la obesidad como factor de riesgo para desarrollar cáncer, y un porcentaje más pequeño aún (13,4%) sabía que el concepto correcto de lo que significa ser físicamente activo según la OMS. Verificada la existencia de la necesidad de la inclusión de asignaturas / actividades sobre el tema en el plan de estudios del curso en Educación Física con el fin de aumentar la participación de estos profesionales en equipos multidisciplinares que trabajan en promoción de la salud.

PALABRAS CLAVE: Cáncer. Educación Física. El ejercicio físico.

CONHECIMENTO DE ESTUDANTES UNIVERSITÁRIOS DO CURSO DE EDUCAÇÃO FÍSICA SOBRE O CÂNCER E SEUS FATORES DE RISCO

RESUMO

Introdução: Os casos de câncer tem aumentado de maneira significativa no mundo todo, principalmente a partir do século passado, sendo hoje, um dos mais importantes problemas de saúde pública mundial. Como uma profissão da área da saúde, a Educação Física no Brasil parece não apresentar frequentemente em seus currículos disciplinas ou atividades complementares que abordem, explorem ou produzam conhecimento sobre o assunto. **Objetivos:** O presente projeto teve como objetivo avaliar e pontuar o conhecimento de estudantes universitários de Educação Física sobre o câncer, seus fatores de risco e suas relações com um estilo de vida sedentário. **Materiais e Métodos:** Trata-se de um estudo de caráter epidemiológico, de corte transversal de base populacional, onde participaram 217 estudantes voluntariamente entre 17 e 29 anos idade, originários de duas IES sendo uma estabelecida na Região Centro-Oeste de Minas Gerais e outra na Região norte do estado de São Paulo. Os voluntários responderam um questionário desenvolvido pelos pesquisadores para esse fim, junto a plataforma Survey Monkey. **Resultados e Discussão:** Nesse estudo, participaram 99 homens e 118 mulheres com faixa etária predominante de respostas entre 20 - 29 anos equivalentes a 70% de todas respostas. Observou-se que 11% da amostra não souberam responder a definição de câncer, mas em contrapartida 90,3% reconhecem o sedentarismo e padrão alimentar como fatores de risco. Apenas 22,6% reconheceram a obesidade como um fator de risco para o desenvolvimento de câncer, e um percentual menor ainda (13,4%) sabem o conceito correto do que é ser fisicamente ativo de acordo com a OMS. Verificou-se a existência da necessidade da inclusão de disciplinas/atividades sobre o tema na grade curricular do curso de Educação Física tendo em vista a participação cada vez maior desse profissional em equipes multidisciplinares atuando na promoção de saúde.

PALAVRAS-CHAVE: Câncer. Educação Física. Exercício Físico.