

TEENAGERS NUTRITIONAL EDUCATION: EXPERIENCE REPORT

EDUCAÇÃO NUTRICIONAL COM ADOLESCENTES: RELATO DE EXPERIÊNCIA

EDUCACIÓN NUTRICIONAL CON ADOLESCENTES: RELATO DE EXPERIENCIA

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ABSTRACT

To describe and analyze food and nutritional education interventions applied to adolescents, all students of a private school in Novo Hamburgo – Rio Grande do Sul, to promote food knowledge to students, aiming for changes in healthy eating practices. During the discipline of Nutritional and School Education of the Nutrition graduation course, four academics carried out educational interventions in students of the first-year high school, on subjects in the nutrition area previously chosen by them and passed on to the academics. Thus, were developed five actions around teaching healthy eating to adolescents daily. The article's objective was contemplated, and it demonstrates that nutritional education activities must be carried out continuously so that effective changes occur in the beneficiaries' lifestyles.

Keywords: *Healthy Eating; Children; Health Promotion.*

RESUMO

Descrever as intervenções de educação alimentar e nutricional aplicadas com adolescentes estudantes de ensino médio. Trata-se de um estudo de natureza qualitativa e intervencionista, apresentado no formato de um relato de experiência. A intervenção envolveu 14 adolescentes do primeiro ano do ensino médio, de idades entre 15 e 16 anos, em uma escola particular de Novo Hamburgo, Rio Grande do Sul. Foram realizadas 5 ações de Educação Alimentar Nutricional, focadas em ensinar hábitos alimentares saudáveis. Percebeu-se melhora significativa nos conhecimentos de nutrição dos alunos. Além disso, a proposta de atividades baseadas em competição motivou os participantes a se engajarem na prática. A aplicação de intervenções nutricionais é de suma importância para a formação dos acadêmicos, pois o conhecimento adquirido com as práticas prepara o profissional de nutrição para atuar guiado por princípios de humanização, respeito à diversidade cultural, segurança alimentar e nutricional e autonomia.

Descritores: *Educação Alimentar e Nutricional; Educação em Saúde; Nutrição do Adolescente.*

RESUMEN

Describir y analizar intervenciones en educación alimentar y nutricional aplicado en adolescentes, estudiantes en una escuela privada en Novo Hamburgo – Rio Grande do Sul, con el fin de promover el conocimiento de los alimentos a los estudiantes para cambiar las prácticas de alimentación saludable. Durante la disciplina de Educación Nutricional y Escolar de la carrera de graduación en Nutrición, cuatro académicos realizaron intervenciones educativas en estudiantes de primer año de secundaria, sobre temas del área de nutrición previamente escogidos por ellos y transmitidos a los académicos. Así, se desarrollaron cinco acciones de Educación alimentaria y nutricional en torno a la enseñanza cotidiana de la alimentación saludable a los adolescentes. El objetivo del artículo fue contemplado y demuestra que las actividades de educación nutricional deben realizarse de forma continua para que se produzcan cambios efectivos en el estilo de vida de los beneficiarios.

Descritores: *Educación Alimentaria Y Nutricional; Acciones Educativas; Nutrición Adolescente.*

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INTRODUCTION

É notório que, nos últimos anos, o Brasil vem enfrentando uma crescente transição nutricional, a qual é caracterizada pela diminuição progressiva da desnutrição e o aumento excessivo do sobrepeso e da obesidade, assim como a prevalência de déficits nutricionais¹. Segundo a pesquisa do Sistema de Vigilância de Fatores de Risco e Proteção para Doenças Crônicas por Inquérito Telefônico (VIGITEL), de 2021, realizada em 27 cidades brasileiras, quase 6, a cada 10 brasileiros, estavam acima do peso. Esse número alarmante representa cerca de 57,2% dos entrevistados, sendo o índice de obesos 22,4%². Esses dados são preocupantes, uma vez que o excesso de peso é considerado fator de risco para o desenvolvimento de Doenças Crônicas Não Transmissíveis (DCNTs), tais como hipertensão arterial, doenças cardiovasculares, diabetes mellitus, hipercolesterolemia, alguns tipos de câncer, entre outras.

De acordo com a Organização Mundial da Saúde (OMS), as DCNTs foram responsáveis por cerca de 70% das mortes mundiais em 2019. Em 2021, o índice de mortes ocorridas prematuramente (entre 30 e 69 anos de idade) chegou a 41,8% no Brasil, por conta das DCNTs³. Tendo isso em vista, as consequências dessa mudança de hábitos são alarmantes e devem ser levadas em consideração quando pensamos em saúde pública no país. Ainda, de acordo com a pesquisa da VIGITEL², a frequência de obesidade caiu entre as mulheres entrevistadas de acordo com o aumento no nível de escolaridade, trazendo um valor menor naquelas que tinham ≥ 12 anos de estudo. Nesse sentido, ações de educação nutricional para a promoção de hábitos saudáveis e mudanças no estilo de vida são de grande⁴ importância, com reflexos positivos quando implantadas desde os anos iniciais.

A diminuição da desnutrição e o aumento do excesso de peso independentemente de idade, sexo ou classe social é demonstrada nos estudos. Ao verificar isso, os autores discutem que são necessárias ações de educação nutricional e incentivo a práticas de atividade física diárias para combater doenças crônicas não transmissíveis, como, por exemplo, obesidade⁵⁻⁶. Nesse sentido, é necessário um programa de intervenção nutricional que considere fatores ambientais, organizacionais, pessoais e locais para que seja bem-sucedido. Logo, deve atender às necessidades específicas da população para que as estratégias propostas sejam efetivas para a mudança comportamental dos indivíduos. Portanto, a educação nutricional deve não somente utilizar teorias, mas também modelos de motivação para a real alteração de estilo de vida⁷.

O Programa Nacional de Alimentação Escolar (PNAE) visa oferecer alimentação nas escolas, assim como atividades de educação nutricional. Nesse sentido, o programa tem como um de seus objetivos a formação de hábitos saudáveis, por meio de ações realizadas por educação alimentar e nutricional, sendo possível, através dessas ações, promover hábitos e estilos de vida saudáveis, estimulando a autonomia dos indivíduos e favorecendo a segurança alimentar e nutricional⁸⁻⁹.

Dito isso, é atribuição do profissional de nutrição promover educação e segurança alimentar para modificação de hábitos e práticas alimentares. Para tanto, é necessária a disciplina de Educação Nutricional – inserida na grade curricular da graduação do curso de Nutrição – para que proporcione ao futuro profissional nutricionista a capacidade e oportunidade de atuar nesse contexto, promovendo saúde aos indivíduos¹⁰.

Assim, as acadêmicas da disciplina de Educação Nutricional e Escolar desenvolveram ações de intervenções nutricionais com alunos de uma escola particular de Novo Hamburgo, RS. Para que as ações fossem mais assertivas, buscou-se métodos que fizessem os alunos aprenderem de forma significativa com cada atividade proposta. Assim, optou-se por trabalhar com jogos, gincanas e atividades em formato de competição. Venditti e Souza¹¹ apontam que os aspectos de competição fazem com que os alunos tenham uma maior concentração na atividade que estão realizando e reajam com mais seriedade e atenção. Ademais, jogos e ambientes lúdicos possibilitam que os estudantes fiquem mais atentos às explicações e propiciam um ambiente com liberdade de expressão para os estudantes¹².

Sendo assim, esses fatores foram utilizados para ajudar os alunos a ampliarem a construção do conhecimento nutricional, uma vez que, por ter sido uma intervenção de curta duração, buscou-se aproveitar ao máximo cada encontro. Diante do exposto, o objetivo deste estudo é descrever as intervenções de educação alimentar e nutricional aplicadas com adolescentes estudantes de uma escola particular de Novo Hamburgo - RS. It is well known that, in recent years, Brazil has been facing a growing nutritional transition, which is characterized by a progressive decrease in malnutrition and an excessive increase in overweight and obesity, as well as the prevalence of nutritional deficits¹. According to the 2021 survey by the Surveillance System of Risk and Protective Factors for Chronic Diseases by Telephone Survey (VIGITEL), carried out in 27 Brazilian cities, almost 6 out of every 10 Brazilians were overweight. This alarming number represents about 57.2% of the interviewees, with an obese rate of 22.4%². These data are worrisome, since excess weight is considered a risk factor for the development of Chronic Non-Communicable Diseases (NCDs), such as hypertension, cardiovascular diseases, diabetes mellitus, hypercholesterolemia, some types of cancer, among others.

According to the World Health Organization (WHO), NCDs were responsible for about 70% of global deaths in 2019. In 2021, the rate of premature deaths (between 30 and 69 years of age) reached 41.8% in Brazil, due to NCDs³. With this in mind, the consequences of this change in habits are alarming and should be taken into account when we think about public health in the country. Also, according to the VIGITEL² survey, the frequency of obesity fell among the women interviewed according to the increase in the level of education, bringing a lower value in those who had ≥ 12 years of schooling. In this sense, nutritional education actions to promote healthy habits and lifestyle changes are of great importance⁴ with positive effects when implemented from the early years.

The decrease in malnutrition and the increase in overweight regardless of age, gender or social class is demonstrated in the studies. By verifying this, the authors discuss that nutritional education actions and encouragement of daily physical activity are necessary to combat chronic non-communicable diseases, such as obesity⁵⁻⁶. In this sense, a nutritional intervention program that considers environmental, organizational, personal, and local factors is necessary for it to be successful. Therefore, it must meet the specific needs of the population so that the proposed strategies are effective for the behavioral change of individuals. Therefore, nutritional education should not only use theories, but also motivation models for real lifestyle changes⁷.

The National School Feeding Program (PNAE) aims to provide food in schools, as well as nutritional education activities. In this sense, one of the objectives of the program is the formation of healthy habits, through actions carried out by food and nutrition education, and it is possible, through these actions, to promote healthy habits and lifestyles, stimulating the autonomy of individuals and favoring food and nutritional security⁸⁻⁹.

That said, it is the responsibility of the nutrition professional to promote education and food safety for the modification of eating habits and practices. To this end, the discipline of Nutritional Education – inserted in the undergraduate curriculum of the Nutrition course – is necessary to provide the future professional nutritionist with the ability and opportunity to work in this context, promoting health to individuals¹⁰.

Thus, the students of the discipline of Nutritional and School Education developed nutritional intervention actions with students from a private school in Novo Hamburgo, RS. In order for the actions to be more assertive, we sought methods that would make the students learn in a meaningful way with each proposed activity. Thus, it was decided to work with games, scavenger hunts and activities in a competition format. Venditti and Souza¹¹ point out that the aspects of competition make students have a greater concentration on the activity they are performing and react with more seriousness and attention. In addition, games and playful environments allow students to be more attentive to explanations and provide an environment with freedom of expression for students¹².

Thus, these factors were used to help the students to expand the construction of nutritional knowledge, since, as it was a short-term intervention, we sought to make the most of each encounter. In view of the above, the objective of this study is to describe the food and nutrition education interventions applied to adolescent students from a private school in Novo Hamburgo, Rio Grande do Sul, Brazil.

METHODS

This is a qualitative and interventionist study, presented in the form of an experience report. The study was carried out through a nutritional food education intervention with a group of adolescents in the first year of high school, aged between 15 and 16 years, in a private school in Novo Hamburgo, Rio Grande do Sul.

This work is inserted in the context of the discipline of Nutritional and School Education of the undergraduate course in Nutrition of a university in the same municipality, in which four academics were instructed to carry out educational interventions in the area of nutrition in a period of 6 weeks, totaling 5 actions. Thus, the Principles and Practices for Food and Nutrition Education of the Ministry of Social Development¹³ were used to guide the actions and steps to be followed to conduct nutrition education, from the moment of development of the action plans. The activities took place in periods made available by the school, always with the presence of elementary school teachers and the supervision of the undergraduate teacher.

After the theoretical learning of the subject, practical activities were elaborated for the school scenario. The class in which the students would work had already been selected by the university and the subject that the group would like to develop was already determined, which was: how to have a healthy diet on a daily basis. From this, the

methodology to be used with the class was defined, always taking into account regional, cultural, social, environmental and psychological issues that are related to people's diet.

In this sense, at the beginning of the intervention, we sought to undo the initial tension with the students. The academics asked each person to say their name, what they would like to be called, and their "controversial cuisine," that is, something they like to eat and that makes other people feel strange. To generate engagement with the adolescents, the academics proposed a scavenger hunt in which points would be accumulated in all meetings, in order to stimulate competitiveness among the students. Thus, the class was divided into 4 groups and each student was responsible for a team to help and identify the students.

Each theme was conceived seeking a better understanding of the issues exposed. In this sense, the first meeting aimed to introduce the subject "Correct eating on a daily basis", as well as nutritional information, processed foods, seasonality and healthy eating. The intention of this proposal was to make the students feel at ease in the group. From this, a board game was played with questions and answers about nutrition, classified between: nutritional information, seasonality, processed foods and varieties. Thus, the game contained numbers from 1 to 5, in which the students bet how much they knew how to answer a certain question (1 being "very little" and 5 "I know the answer"). If answered correctly, the group moved their piece in the amount of numbers they had bet. Otherwise, it stayed in the same place. The group that finished the board first and consequently answered the most questions correctly won a point for the gymkhana.

In the second meeting, the objective was to address healthy breakfast ideas and practices. For this, a "Tic-tac-toe Race" was held, in which the students (divided into the same four groups as in the first dynamic), were separated into two old women – two groups for each – and competed in pairs in their own group. Each group formed a line in which the first and second vied for "rock, paper, scissors." Then, the student who won had to grab a colored ribbon and run to form tic-tac-toe. At the same time, the competing group also played "rock, paper, scissors", with the aim that the faster they played and ran, the greater the advantage they had to close the old lady of their group. Thus, forming a sequence of three on the game board, with each square corresponding to a food that the students did not know what it was. Then, the teens had 30 seconds to come up with a recipe with the three foods, related to breakfast. Finally, an *e-book* with "healthy breakfast recipes" was made available to the students, in which all the foods in the game were present. The group that won the eldest women won a point for the gymkhana.

Similarly, in the third meeting, the class remained divided into the same teams as in the other weeks. The purpose of this meeting was to discuss healthy snack ideas and encourage them to bring snacks to school. Teams were asked to stand in rows, with a table dividing each student within their team. The game consisted of assembling a lunch box with the food that was advertised on the projector (slides), inspired by the Mc Donald's test, held in a *reality show* broadcast on Brazilian TV in 2021. Thus, the first student would have to find the food while shuffled and turned inside out, pass it on to the second student who, in turn, had the function of delivering it to the third student. Next, this student would have the responsibility of assembling the food in the correct order in the lunch box. It is worth mentioning that the students' lunchboxes were turned upside

down from the one that was advertised to them. Therefore, they had to be guided by the colors of the lunchbox and pay attention not to make a mistake in the places of the food, since, if they made a mistake in the arrangement of the food in the lunchbox, they could not win the match. The first group to finish assembling the lunchbox won the match and the group that earned the most points during the rounds accumulated one point in the gymkhana.

In the fourth meeting, an activity was carried out in which the students had to use their entire body to compose the dishes pre-established by the students, with the objective of encouraging the students to consume healthy and complete foods at lunch. The dishes were composed with food designed for a complete lunch. In this way, each part of the body corresponded to one of the foods in that meal. For example, the right hand corresponded to white rice, the knees to the fried egg, and so on. In this game, the students talked about which food represented each part of the body. Then, the students in each group had to stand away from each other and, when the student shouted "I'm hungry for...", followed by food, the students had to run to their group and all the components had to touch that part of the body to the other (knees to knees, for example). When it was said "I'm hungry for *ala minuta*" (*ala minuta* is the informal name given to the "dish made" in Rio Grande do Sul), the students had to gather with their backs to each other, in their groups, and squat and stand up. In all scenarios, the groups that put the wrong body part together were eliminated and, at the same time, the group that managed to stay in the correct position for the longest time won. As in the other dynamics, the group that accumulated the most points during the activity won a point in the gymkhana.

In addition to the activity carried out during the fourth meeting, the students also received a riddle by message to unravel what the fifth activity would be, also worth another point for the gymkhana. This riddle contained a photo of the number of a university building, referring to the place where the activity would be, photos of three symbols (triangle, circle and square), assembled with elements found on campus, and the words "1,2,3", the last ones being in reference to the game they would participate in. The first group that submitted the complete answer correctly earned a point for the gymkhana.

Then, in the fifth and last meeting with the class of students, the academics proposed an external classroom activity, based on a television series that was in vogue among young people at the current time of the interventions, called Round Six. The purpose of this meeting was to teach, through a game known to them, complete and healthy meals for dinner. The students were positioned on a starting line and could only run towards the finish line when the music that contemplates the soundtrack of the series played. The student who reached the finish line first answered a question regarding nutrition – the same ones used in the first dynamic – and, if he got it right, he won a food. The group that completed a full meal for a dinner contemplating the three macronutrients (carbohydrates, proteins, and lipids) scored for the team in the final score of the gymkhana.

Consequently, the team of students who won was the one that got the most correct answers in the activities proposed by the students. The involvement, the willingness to learn and the ambition to win the gymkhana were noticeable among the groups. It can be said that the interventions met the expectations of the university students.

RESULTS

The sample of this study was composed of 14 adolescents enrolled in school and who participated in all FNE interventions. We observed that, with only five meetings, it was not possible to perceive a drastic change in the adolescents' eating behavior. However, according to the last proposed activity, in which we used the same questions proposed in the first activity, we noticed a significant improvement in the students' knowledge of nutrition. Therefore, it is emphasized that food and nutrition education enable the strengthening of individuals' autonomy, improving eating conditions¹⁴.

The authors Barreto *et al.*¹⁵, who carried out nutritional education activities with adolescents, believe that ten meetings are not enough for the entire transformation process, which should be carried out gradually, continuously and progressively. However, they point out that in this period it was possible to notice small changes. In addition, they refer to the importance of understanding that the beneficiaries are people with experiences, knowledge and experiences and that this should not be disregarded. Food and nutrition education, in the form of groups, is a promising means that promotes changes in eating behavior through the execution of activities.

On the other hand, the authors Piassetzki and Boff¹⁶, in a literature review, report that the family, the school, the teachers, the nutritionist and the media have an important influence on food and nutrition education and the formation of eating habits in childhood. Research shows that the conformation of eating habits and lifestyle characteristics begin in childhood and are consolidated in adolescence, often being maintained in adulthood.

DISCUSSION

Based on the nutritional food education interventions carried out with adolescents, we observed the relevance of using proposals that involve the target audience in ways that make them managers of knowledge, corroborating the findings of Venditti and Souza¹¹, who point out that the aspects of competition make students have a greater concentration on the activity they are performing and thus end up treating the proposal more seriously. Thus, these factors can help the student to expand the construction of knowledge.

According to a study conducted by students from the Federal University of Bahia (UFBA), "games allow students to be more attentive to the content than in a regular class, since the situation of rules and restricted freedom of playful activity keeps the student attentive"^{12:3}. According to Silva and Figueiredo¹⁷, teaching through active learning methodologies is an easy strategy when compared to the traditional expository teaching method, so that such activities should be planned for better adherence by professionals in health services. Similarly, the study by Sobngwi-Tambekou *et al.*¹⁸ shows that a well-structured multisectoral nutrition education program can be the basis for improving nutrition knowledge among adolescents, so that it can serve as a prevention of chronic non-communicable diseases. Hamulka *et al.*¹⁹ adds that the implementation of this educational program is important to develop good habits, quality of life and health in adulthood. In view of the interventions carried out by the students, we sought to promote the desired knowledge for the adolescents, through games or games in which they were fully present at the moment, paying attention to what was transmitted to them.

CONCLUSION

The application of nutritional interventions is of paramount importance for the training of Nutrition students, considering that the knowledge acquired with the practices prepares them for the job market, supported by principles of humanization, respect for cultural diversity, food and nutritional security and autonomy. Therefore, the experience report of nutritional education actions with adolescents from a private school in Novo Hamburgo, Rio Grande do Sul, Brazil, demonstrates that nutritional education activities must be carried out continuously, so that effective changes in the lifestyle of the beneficiaries occur.

As potentialities of this experience report, it is highlighted that the elaboration of educational practices illustrates the possibilities of intervention in the context, in order to encourage other health professionals to carry out interventions in this age group based on the activities, techniques, dynamics and activities developed in this project, which had excellent adherence by the target audience. Thus, due to the positive results with the target audience, the use of playful proposals, games and competition dynamics are resources that arouse the attention and active participation of the subjects through the fun characteristic of the practice, enabling more effective learning and reflections when compared to the traditional and expository teaching method, based on the memorization of the knowledge transmitted. In this way, we can highlight that it is possible to be resolute with Food and Nutrition Education practices, favoring active participation, reflection, discussion of the issues addressed and health promotion and disease prevention based on the subject's autonomy in their own food choices.

The present study found the following limitations as limitations: execution time in FNE interventions and difficulty in monitoring the group of adolescents in the long term, which made it impossible to identify real changes in their habits and food choices. In addition, since we did not develop a research instrument to be applied in the pre- and post-intervention, it was not possible to collect reports from the participants regarding the proposals and dynamics applied, and only a few questions were asked to get to know the class at the beginning of the practices.

It is suggested that further studies should be conducted, with a longer follow-up time and a greater number of FNE interventions. In addition, it is suggested that studies be published with methodological proposals for FNE interventions for different stages of life, so that we can encourage and implement these practices within school environments and other health care spaces of our population.

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