

NUTRITION LABELING AS A TOOL TO PROMOTE SELF-CARE IN DIABETIC PATIENTS

A rotulagem nutricional como ferramenta para a promoção do autocuidado em diabéticos

La rotulación nutricional como herramienta para la promoción del autocuidado de diabéticos

Description or evaluation of evaluation of experiences, methods, techniques, procedures and instruments

ABSTRACT

Objective: To describe the process of developing and implementing a workshop on nutrition labeling tailored to the needs of diabetic patients. **Data synthesis:** The study was conducted with members of a diabetes group in Currais Novos/RN. Initially, a review of the existing legislation on labeling was made in order to identify impact points for the diabetic patient. Then, the following themes were selected: diet, light and zero; wholesome food; nomenclature and synonyms to designate sugar; order of ingredients; instructions for use and serving/portion size. After that, a visual support material was elaborated for a better assimilation of information and group activities were devised seeking to offer experiences that would allow to work on some issues in a more agile and practical way, favoring the understanding of information. The individuals actively participated in the activities and also got a glimpse of how to apply the acquired knowledge to their daily lives. **Conclusion:** The workshops contributed to the deepening of knowledge and the acquisition of skills to handle diabetes, encouraging the protagonism of patients in relation to dietary care. Given the good acceptance of this initiative and the power that such type of information has to improve the quality of life of diabetic patients, it is expected that similar activities are included more often in the repertoire of health care services.

Descriptors: Food labeling; Nutrition Education; Diabetes.

RESUMO:

Objetivo: Descrever o processo de elaboração e execução de oficinas sobre rotulagem nutricional, contextualizada às necessidades de pacientes diabéticos. **Síntese dos dados:** Realizou-se um trabalho com integrantes de um grupo de diabéticos da cidade de Currais Novos-RN. Inicialmente, fez-se uma avaliação da legislação vigente sobre rotulagem, buscando identificar pontos de impacto para o paciente diabético. Então, foram selecionados os seguintes temas: dieta, light e zero; alimento integral; nomenclaturas e sinônimos para designar açúcar; ordem dos ingredientes; instruções de uso e porção/medida caseira. A seguir, elaborou-se um material de apoio visual para melhor assimilação das informações e idealizaram-se atividades de grupo, buscando oferecer vivências que permitissem trabalhar de forma mais ágil e prática alguns pontos, favorecendo a compreensão das informações. Os participantes aderiram a essas atividades, mostrando-se participativos, além de conseguirem vislumbrar a aplicação, em seu cotidiano, dos conhecimentos adquiridos. **Conclusão:** As oficinas contribuíram para o aprofundamento de conhecimentos e a aquisição de habilidades para lidar com o diabetes, incentivando o protagonismo dos pacientes em relação ao cuidado dietético. Diante da boa aceitação dessa iniciativa e do potencial que o tipo de informação trabalhada tem para melhorar a qualidade de vida de quem vive com diabetes, espera-se que atividades semelhantes sejam inseridas com maior frequência no repertório dos serviços de cuidado à saúde.

Descritores: Rotulagem de Alimentos; Educação Nutricional; Diabetes.

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RESUMEN

Objetivo: Describir el proceso de elaboración y ejecución de talleres de rotulación nutricional en el contexto de las necesidades de pacientes diabéticos. **Síntesis de los datos:** Se realizó un trabajo con los integrantes de un grupo de diabéticos de la ciudad de Currais Novos-RN. A principio se hizo una evaluación de la legislación en vigor sobre rotulación intentando identificar los puntos de impacto para el paciente diabético. Fueron seleccionados los siguientes temas: diet, light y zero; el alimento integral; las nomenclaturas y sinónimos para designar el azúcar; el orden de los ingredientes; las instrucciones de uso y la porción/medida casera. En seguida, se elaboró un material de apoyo visual para una mejor asimilación de las informaciones y se idealizó las actividades de grupo intentado ofrecer vivencias que permitieran trabajar de manera más ágil y práctica algunos puntos que facilitara la comprensión de las informaciones. Los participantes adhirieron a las actividades con participación, además de lograren vislumbrar la aplicabilidad de los conocimientos adquiridos en su cotidiano. **Conclusión:** Los talleres contribuyeron para la profundización de los conocimientos y la adquisición de las habilidades para convivir con la diabetes, incentivando el protagonismo de los pacientes sobre el cuidado dietético. Frente la buena aceptación de la iniciativa y del potencial de la información trabajada para mejorar la calidad de vida de uno que vive con diabetes se espera que actividades semejantes sean insertadas con más frecuencia en los servicios de cuidados a la salud.

Descriptores: Etiquetado de alimentos; Educación Alimentaria y Nutricional; Diabetes Mellitus.

INTRODUCTION

In 2007, only four chronic diseases – including diabetes – accounted for 58% of deaths in Brazil⁽¹⁾. These morbidity and mortality are partially related to changes in the population's eating patterns, particularly the increased consumption of calories, animal fat and industrialized food, and the decreased consumption of fibers, fruits, and vegetables^(2,3).

Therefore, food consumption can be considered a determinant of health, whose positive or negative outcome depends on daily choices made during the purchase, acquisition and consumption of food⁽⁴⁾. For a better support of these practices, it is of utmost importance to develop actions, policies and activities to help the population adopt a healthier diet^(5,6).

An important initiative is the standardization of nutrition labeling, defined as any description intended to inform the consumer of nutritional properties of a food, including information on energy value and main nutrients⁽⁷⁾.

In Brazil, nutrition labeling is regulated by the *Resoluções de Diretoria Colegiada – RDCs* (Collegiate Board of Directors Resolutions) of the *Agência Nacional de Vigilância Sanitária – ANVISA* (National Health Surveillance Agency)^(8–10). The information provided on nutrition labels must be clear and specify the right quantity, composition and quality of the product as well as properties and/or health claims of its consumption^(7,11).

The accuracy of the information provided on the nutrition label should be guaranteed so that this tool meets the objective of assisting consumers in their choices and health professionals in the creation of a diet plan^(7,12).

Thus, the information on the labels allow the consumer to access nutritional parameters and indicators of the quality and safety of food, constituting a valuable tool for building personal responsibility in relation to food consumption⁽¹³⁾.

However, in order to become an instrument of nutrition and food education, it is necessary that such information be understood by all the people who use it^(5,6). However, people do not always read the nutrition labels on the packages of the food they eat⁽⁷⁾; when they read it, they do not properly understand its meaning^(5,14,15).

This knowledge can be useful in the self-care process, particularly in the case of diabetic patients, who have different metabolic and physiological conditions whose control and management require the adoption of a specific diet^(16,17).

That is why nutrition education for diabetes management must be focused on developing the capacity of individuals to identify opportunities for improving their diet, influencing their motivations and contributing to the construction of critical consciousness^(13,16,18).

An adequate eating pattern is crucial to ensure glycemic control in diabetes as well as to prevent complications and sequelae of this disease. Additionally, educational activities concerning this issue are of great importance in its treatment^(17,19). But for the successful education of these patients, it is important to consider the motivational aspects of self-care, the family participation, and the establishment of effective relationships with the multi-professional team. The challenge lies in the continuous search for space and time to educate⁽²⁰⁾.

In this sense, the current “*Diretrizes para o cuidado das pessoas com doenças crônicas nas redes de atenção à saúde e nas linhas de cuidado prioritárias*” (Guidelines for the care of people with chronic diseases in health care nets and in priority lines of care) recommend group activities as a unique moment for health education, allowing the exchange of information and experiences between users and health teams, as well as promoting self-care practices

and attitude change⁽²¹⁾. Moreover, it is a resource that can help patients build a better awareness of the importance of being responsible for their own treatment, as an active agent, and not as a mere recipient of prescriptions^(13,18,21).

Therefore, considering the importance of nutrition labeling to provide information to help evaluate the food and hence choose the food repertoire, the need to educate consumers for a better understanding of these data should be highlighted.

Thus, the present study aimed to describe the process of developing and implementing a workshop on nutrition labeling tailored to the needs of diabetic patients.

DATA SYNTHESIS

This work is a description of an experiment conducted with members of a diabetes support group called *Renascença*, which is composed of 832 participants from the *Hospital Regional Dr. Mariano Coelho* (Dr. Mariano Coelho Regional Hospital), located in the city of Currais Novos in the countryside of the state of Rio Grande do Norte. Given the large number of members, participants were divided into groups of 30 people each, and the workshop on nutrition labeling was held several times.

Before developing the workshops, an analysis was done on ANVISA resolutions on nutrition labeling⁽⁸⁻¹⁰⁾ to select the topics that had greater relevance to and impact on the daily lives of patients with diabetes. The chosen topics were: definition of and the difference between the terms diet, light, and zero; “what is wholesome food?”; multiple nomenclatures to designate sugar on food labels; the meaning of the order of ingredients of the product; and the instructions for use and serving/portion size of each food.

After that, the group of tutors held meetings to deepen the knowledge about issues such as food labeling and diabetes and nutrition education in order to better support the development of the material and define educational strategies for the workshop.

The information was organized on slides that were projected using multimedia tools, prioritizing the use of figures and drawings for a better flow of the presentation and understanding of contents by the participants with lower education levels. Additionally, a key element for the development of the workshops was the need to include practical experiences for a more active participation and a greater involvement of diabetic patients in the knowledge construction process.

New meetings were held by the group of tutors to discuss and evaluate the developed material, which was repeatedly adjusted until it was considered successful from a nutritional and pedagogical point of view. Among the

criteria used to define the adequacy from a pedagogical point of view were: high proportion of information presented in figures and flowcharts; good graphical quality; amount of information per slide; clarity in concepts; feasibility of the proposed activities (time required, material and type of participation involved); and the use of correct colloquial language.

Additionally, foods, recipes and products used in examples, figures and activities should be part of the food repertoire available in the region. They should also be affordable and/or easy to prepare, as the majority of the group members were aged over 50 years and had a low purchasing power.

To illustrate the concepts of diet and light, as well as the serving/portion size and sugar synonyms, tutors used the nutrition facts label of a diet biscuit that could be easily purchased in the local market and presented it to the workshop participants. As the discussion progressed, other foods appeared on the scene, such as popular soft drinks brands, which were used to elucidate what a “zero” product is.

Concerning the differences between diet and light, the basic concepts were based upon the resolution on foods for special purposes. The matter of reducing or restricting a certain ingredient in foods was the central point of the presentation, punctuated by the great participation of the attendees, who consumed the foods used and were able to use the information in their daily lives, dispelling doubts and rebuilding already established concepts and values.

A moment of great concern among participants was when tutors talked about the several nomenclatures to designate sugar on product labels (for instance, brown sugar, simple sugar, glucose syrup, corn syrup, glucose, and powdered sugar). Most diabetic participants could not relate these words to sugar. Moreover, they thought there was no problem eating brown sugar, for example. This topic aimed to alert them and enable them to identify sugar in food and to analyze the adequacy of light foods for consumption.

In fact, many participants expressed doubts about the terms diet and light, with no correct definition of these terms or even a misuse of both of them. Such doubt can restrict the food repertoire of diabetic patients even more, as these patients may feel unsure about whether or not to consume a certain food. Additionally, it can also lead to inadequate food choices, rich in sugar, and contribute to poor glycemic control.

The term “light” refers to foods with a 25% reduction in any ingredients compared to the original product. Similarly, the terms “low” or “poor” can also be used. Diet foods are sugar-free foods. However, light foods are not necessarily low in calories and sugars; additionally, they may be low in

proteins and fibers and still be designated as a light product on their labels⁽⁸⁾.

One issue that has been frequently mentioned and discussed in the workshops is the fact that some light foods contain no sugar in their composition and are hence suitable for diabetic patients. However, the patient with diabetes cannot define whether or not a light food is suitable for consumption unless he can understand the meaning of the terms “diet” and “light” and identify the presence of sugar in the list of food ingredients.

Milk and rice were used to address the concept of wholesome food, as they appear in almost all the recommendations for a healthy diet for patients with diabetes⁽²²⁾. First, tutors worked on the idea of the meaning of “wholesome” in order to separate it from the idea of healthy. At that point, the discussion focused on milk, which could be found in wholesome, semi-skim, and skim versions. Tutors showed images of products, the differences between the compositions, and discussed the indication for use suggested by their health professionals. After that, they explained the differences between brown, polished, “earth” and parboiled rice, focusing on nutritional composition, particularly in relation to fiber content and glycemic responses they provoke with their intake. The ultimate goal was – in addition to simply accepting the name “wholesome” expressed on the label – to make participants understand why the food is called “wholesome” and whether the presence of these components would be appropriate or not for diabetic people.

The workshop also addressed the concept of serving and portion size using diet biscuits whose sealed packages circulated among participants. Participants were asked to open the packages and separate the quantity they would normally consume or the quantity they identified as a serving. After that, they read the information on the package about the serving size according to the existing legislation and then separated the appropriate quantity. At this moment, all the participants were invited to compare the amounts, discuss possible differences, and rethink the concept of serving size based on the information available on food labels. Tutors also highlighted that the nutritional information available on food labels, like carbohydrates, fat, proteins, and sodium, refer to the corresponding serving size of the product, which do not always correspond to the entire content of the package.

With regard to the instructions for use, the foods used to guide the activities were the popular sweetener and margarine brands. Images of a package of margarine and some zoomed images of parts of it were used to demonstrate that sometimes these products are not used correctly, which

may result in health harms. Regarding the margarine, tutors showed the recommendations for keeping it refrigerated and not heating it.

These recommendations were made because the margarine – rich in unsaturated fat – kept at room temperature is very prone to oxidation processes. Such oxidation can convert unsaturated fat into saturated fat, the excess of which is associated with increased risk of diabetes comorbidities. Due to its high water content, the margarine should not be subjected to heating because it can modify their texture and alter the fat profile⁽²³⁾. However, the majority of participants had never noticed that these warnings were printed on the package.

Regarding the instructions for use of the sweetener, the individuals were invited to participate in an activity in which they should pick up a bottle of sweetener filled with a colored liquid and put the amount they usually use for a cup of coffee on a saucer, just like they would do it at home. Many times, patients simply “sprinkled” the product by squeezing the bottle and counting the number of times they squeezed it. After that, they read the instructions for use of the product and separated the recommended portion. Then, saucers were placed side by side, and all the participants were invited to observe and compare the contents. It could be noticed that many patients were unaware of the instructions for use of sweeteners, which generated a debate about the importance of reading and following the instructions on the label.

Although sweeteners are commonly used as substitutes of sugar in the daily diet, certain precautions should be taken regarding their consumption, such as following the existing recommendations for the acceptable daily intake (ADI)^(24,25).

To address the importance of the order of ingredients on the label, tutors gave a brief explanation about the issue that was followed by a group activity. Participants were divided into two groups and should organize the ingredients of a recipe according to the labeling rules. The recipe for each group was displayed on a screen so that everyone could see it, and the amount of each ingredient was given in grams. Each group received large sheets of cardstock paper with the names of the ingredients written on it. They should organize them and place them on the wall as if they were on the label of the food used in the recipe. There was an effusive participation of the groups in this activity.

The order of ingredients printed on food packages indicate – in a descending order – the quantity of each ingredient contained in the product, i.e., the first ingredient on the list is the one with the largest quantity compared to the others⁽²⁶⁾.

Thus, it is important to check the order in which sugar – or its other names – is listed in relation to all the ingredients listed. This activity aimed to draw participants' attention to this information so that they would incorporate such practice into their daily lives when purchasing and consuming processed food.

The workshops on nutrition labeling showed the need to conduct continuous educational activities with diabetic people. Although most of the information transmitted is quite simple and widely publicized by the media, some issues addressed were unknown by the participants, and some known issues were not adequately clear.

For example, in the case of the sweetener, many participants knew how many drops they should use, but they did not know the consequences of overdosing. When tutors explained about these consequences, all the participants understood the importance of following the information on the label. On the other hand, none of the participants in any of the workshop sessions was aware of the meaning of the order of ingredients or its relationship to the constitution and/or formulation of the products.

Therefore, it can be noticed that food and nutrition education activities should be planned and executed so that the knowledge worked can be perceived as something tangible and close to the community reality. That is, there should be a real appropriation of information.

The literature suggests^(18, 27) that one of the ways to enhance this aspect would be through activities and strategies based on the concept of empowerment. The empowerment technique appeared in the 80's and 90's, symbolizing a collective action undertaken by individuals when they participate in privileged spaces for decision-making and social awareness of social rights. This awareness goes beyond taking the individual initiative of knowledge and overcoming a reality. It enables the individual emancipation and the development of collective consciousness needed to overcome social dependency and political domination⁽²⁸⁾.

Thus, an external agent – a healthcare professional – empowers individuals and communities by providing them with information and training so they can make changes in their lives. Therefore, the intervention must change individuals into masters of their own life who must adopt pre-defined healthy dietary practices and physical activity, disregarding social, gender and race inequalities that cross the practices and daily lives of participants – and healthcare professionals – in the actions for promoting healthy dietary practices^(20,29).

In the particular context of diabetes, the adherence to an adequate diet allows to decrease the risk of comorbidities and provides patients with a better quality of life^(17,21).

Given the dynamic process of food choice and considering the numerous daily possibilities with which the diabetic patient needs to deal, food and nutrition education activities can help patients develop the capacity to cope with these situations better.

The workshop on nutrition labeling was developed on the basis of the empowerment principle, as the information shared have a great potential to influence food choices of participants and the way they cope with the disease, fostering skills and competences that can be incorporated into their daily lives.

CONCLUSION

The workshops contributed to the deepening of knowledge and the acquisition of skills to handle diabetes, encouraging the protagonism of patients in relation to dietary care. Given the good acceptance of this initiative and the power that such type of information has to improve the quality of life of diabetic patients, it is expected that similar activities are included more often in the repertoire of health care services.

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