Perception on Alimentation and Mode of Consumption of Students of the Nurse Educator Course

Percepción sobre alimentación y modo de consumo de estudiantes de la asignatura Enseñanza en Enfermería

Percepção sobre alimentação e modo de consumo de alunos da matéria de Educação em Enfermagem

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Abstract: Introduction: University students find themselves in a concerning situation in relation to suffering from excess malnutrition caused by different factors such as socioeconomic, cultural, political, among others, which considerably affect this population. Objective: To understand the perception of nutrition and consumption patterns of nursing students. Methodology: Qualitative phenomenological research. The sample was by convenience and theoretical saturation. Nine open individual interviews were conducted with students, audio-recorded, following a thematic guide, then the information was processed by means of thematic grouping. Results: While one of the categories showed the opinion that healthy eating consists of a balanced diet, another category reflected the view that healthy eating is that of sick people. In addition, some categories took into account the family economic situation, that is, the money allocated to the purchase and preparation of food for consumption in the students' homes. Conclusion: Nursing students perceive healthy foods as those that favor good health. When faced with the selection of foods, they recognized economic limitations, scarce time, taste or preference and, in addition, few options for selecting and acquiring healthy foods on the university campus. When it comes to choosing, they opt for the cheapest foods, which they point out as unhealthy.

Keywords: alimentation; nursing student; healthy alimentation; eating behavior.

Resumen: Introducción: Los estudiantes universitarios se encuentran en una situación preocupante en relación al padecimiento de malnutrición por exceso provocada por diferentes factores como socioeconómicos, culturales, políticos, entre otros, que afectan considerablemente a esta población. Objetivo: Comprender la percepción sobre alimentación y modo de consumo que poseen los estudiantes de enfermería. Metodología: Investigación cualitativa fenomenológica. La muestra fue por conveniencia y saturación teórica. Se

realizaron 9 entrevistas individuales abiertas a estudiantes, grabadas en audio, siguiendo una guía temática, luego se realizó el tratamiento de la información por medio de agrupación temática. Resultados: Mientras que una de las categorías mostró la opinión de que la alimentación saludable consiste en una dieta balanceada, otra categoría reflejó la visión de que la alimentación saludable es la de las personas enfermas. Además, algunas categorías tomaron en cuenta la situación económica familiar, es decir, el dinero destinado a la compra y preparación de los alimentos para el consumo en los hogares de los estudiantes. Conclusión: Los estudiantes de enfermería perciben los alimentos saludables como aquellos que favorecen a la buena salud. Ante la selección de los alimentos, reconocieron limitaciones económicas, escaso tiempo, gusto o preferencia y, además, escasas opciones para seleccionar y adquirir alimentos saludables en el campo universitario. A la hora de elegir, optan por los más económicos, que señalan como alimentos no saludables.

Palabras claves: alimentación; estudiante de enfermería; alimentación saludable; conducta alimentaria.

Resumo: Introdução: Os estudantes universitários estão em uma situação preocupante em relação ao excesso de desnutrição causada por diferentes fatores, tais como socioeconômicos, culturais, políticos, entre outros, que afetam consideravelmente esta população. Objetivo: Compreender a percepção dos estudantes de enfermagem sobre a alimentação e os padrões de consumo. Metodologia: Pesquisa qualitativa fenomenológica. A amostra foi por conveniência e saturação teórica. Foram realizadas 9 entrevistas individuais abertas com estudantes, gravadas em áudio, seguindo um guia temático, após o qual as informações foram processadas por meio de um agrupamento temático. Resultados: Enquanto uma das categorias mostrou a visão de que uma alimentação saudável consiste em uma dieta equilibrada, outra categoria refletiu a visão de que uma alimentação saudável é a de pessoas doentes. Além disso, algumas categorias levaram em conta a situação econômica familiar, ou seja, o dinheiro gasto na compra e preparação de alimentos para consumo nas casas dos estudantes. Conclusão: Os estudantes de enfermagem percebem os alimentos saudáveis como aqueles que promovem a boa saúde. Quando se trata de seleção de alimentos, eles reconheceram restrições financeiras, tempo limitado, sabor ou preferência e, além disso, poucas opções para selecionar e comprar alimentos saudáveis no campus. Quando se trata de fazer uma escolha, eles optam pelos alimentos mais baratos, que identificam como alimentos não saudáveis.

Palavras-chave: nutrição; estudante de enfermagem; alimentação saudável; comportamento alimentar.

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Introduction

Healthy alimentation is the one which provides the essential nutrients to ensure the body's good functioning and to preserve health by preventing the risk of disease, taking into consideration the individual characteristics, cultural context, the food available and eating habits of every single person. On the other hand, unhealthy alimentation is understood as the consumption of ultra-processed food, the low consumption of fruits and vegetables and the excessive consumption of alcohol and sugar; besides, this type of alimentation increases the risk of cardiovascular diseases, metabolic disorders and different types of cancer, among others. ⁽¹⁾ In Latin America and the Caribbean, there is a rise in the production and sale of food which promotes healthy nutrition such as fruits, vegetables and legumes, among others, and which reduces the spread of non-communicable diseases. ⁽²⁾

A study involving university students showed that the largest percentage of them expressed their concerns about their alimentation since they do not keep to a balanced dietary pattern that includes all food groups. It was observed that three out of ten students do not include vegetables into their diets and two out of ten students do not eat fish, displaying imbalances in their diet's caloric profile. When considering body mass index, four out of ten students displayed overweight and obesity. (3) Then, the study conducted by Sosa Cárdenas et al. proved that educational support on healthy alimentation was the best way to achieve changes in the direction of favorable habits in relation to the alimentation of the Nursing Licentiate Course's students. (4) The same point was proven by the implementation of an educational program on dietary counseling. The program yielded good results in a group of adolescent students with pre-university studies who showed to adopt changes in their food consumption, which reinforced the eating behavior of the studied population in a healthy way. (5)

Throughout the university stage, there are emotional, physiological, and environmental changes which will play a part in the development of patterns and habits. ⁽⁶⁾ In many cases, these habits are risky, that is, the consumption of unhealthy food together with sedentarism. ⁽⁷⁾ In the study conducted in the city of Córdoba, Argentine Republic, it was found that, since the university community displays a high percentage of overweight, it finds itself in a concerning situation in relation to the abundant consumption of food which does not match the concept of a balanced diet. In fact, 8% of these group members have obesity and, as a consequence, they run the medium- or long-term risk of suffering from metabolic disorders, cardiovascular diseases or from some type of cancer within the studied population. ⁽⁷⁾ In the same way, the results of another study, which was conducted on licentiate-degree nurses and nutritionists, reported that the majority of graduate students have defined healthy alimentation as a balanced diet without giving any grounds for it. The consumption of an unhealthy alimentation is still present in their eating habits since the consumption of ultra-processed and industrialized products was observed. ⁽⁸⁾

Another study conducted in Spain allows to highlight that the above-mentioned eating habits chosen by the nursing and nutrition course graduates do not serve as a model; thus, this shows that being a nursing student is not enough in preventing alcohol or tobacco consumption or in promoting the adoption of healthy eating patterns, although these students receive training on healthy habits in general. As it was observed, these habits are ignored in practice. (9)

This research was conducted taking into consideration what was stated before and with the main objective of understanding the perception on alimentation and mode of

consumption of the students of the 2018 Nurse Educator Course of the National University of Córdoba. The obtained results lead to proposals for further improvement, and which promote knowing, acquiring, and keeping healthy eating behaviors among all nursing students.

The research was founded on Edmund Husserl's theory in tandem with updates on qualitative research in nursing. The phenomenology seeks to enquire about the phenomenon in a direct way, trying to describe it and seeking to intuit its essence, which is understood as the eidos, that is, the identity or intimate nature of the phenomenon itself. (10, 11)

Materials and methods

Through the phenomenological paradigm, it was possible to understand the experiencing of thoughts and values related to the alimentation and mode of consumption which was analyzed on students. A description of the essence of the students' perception was carried out. The description consisted of the telling of the experience and its implementation until reaching a full understanding of it and, thus, drawing inductions through the students' shared experiences.

Convenience sampling was implemented, and theoretical saturation was reached. It was decided to finish the data collection and interview sessions by thanking the students for their participation and collaboration.

Perception was understood as the knowledge, concept, or the students' valued and adopted inner feeling in relation to alimentation and mode of consumption. At the same time, this feeling is expressed in the form of a behavior in the student's lifestyles, and it is shared by them with their family, friends and acquaintances in the different contexts of their daily lives, declaring this feeling as a truly lived experience.

The people who participated in this study were 5th year students of the Nursing Licentiate Course who were attending the in-person Nurse Educator Course in the year 2018. They were shown the objectives and methods of this research and an informed consent was signed as a guarantee of anonymity and information confidentiality. The participant's ages ranged from 22 to 45. Three of the students were of male gender and six of them of female gender. Two of the three male participants were single and one of them was divorced, the three of them lived alone and two of them worked and were born in Córdoba. Among the women, four of them were single, one of them was married and one of them was in an unmarried couple. All women lived with their mothers, fathers, brothers, husbands, partners and/or sons. They lived in their own houses and/or apartments or in rented houses and apartments. These participants' income came from their jobs. Only two of them did not work.

Nine open-ended interviews were conducted to students by following a thematic guide which included a first stage with socio-demographic data and with the dimensions of the issue to be addressed. The interviews were audio recorded with each one of the student's consent. Afterwards, a literal transcription was made by hand and its analysis was carried out by applying strategies of content analysis in phases: textual, categories, analysis and reflective phase. The description of the categories was carried out by taking into full consideration the results from the interviews conducted with the students.

Thematic guide for the research interview

- Socio-demographic data.
 - Origin. Age. Gender. Civil Status. Occupation. Household. Type of dwelling.
- Thematic and behavioral data.
 - What is your opinion about healthy alimentation?
 - Are healthy alimentation and quality of alimentation the same to you?
 - Would you consider that the food you eat falls within a healthy alimentation or quality of alimentation?
 - In your family, who is the person choosing the food that will be eaten throughout the day? Breakfast, lunch, afternoon snack and dinner.
 - Are foods (breakfast, lunch, afternoon snack or dinner) shared with the members of the family at some point during the day?
 - Do family members collaborate on household food expenditure and preparation?
 - When you are not at home, what food do you choose to eat?
 - Do you have options to acquire healthy food while at the Nursing School?

Results and discussion

Once the field work was finished, the analysis of the collected data was carried out, that is, of the dialogues with the participants about their perception on alimentation and mode of consumption; as a result, differentiated categories emerged from the participant's telling. Categories covered:

- Healthy alimentation is the same as a balanced diet.
- Healthy alimentation is that one consumed by sick people.
- Family economic situation in relation to the purchase and preparation of food.
- Selection of food for home consumption at breakfast, lunch, afternoon snack and at dinner.
- Different options to choose from when acquiring healthy food at the Nursing School in places frequented by students.

The participants who consider that a *healthy alimentation equals a balanced diet* since it provides all of the essential and necessary nutrients in sufficient quantities and calories for the body's good functioning, good health and physical and emotional well-being. This diet must include meat, fruits, vegetables, milk products, and homemade, fat free and low carbohydrate food. Then, the student's narrative which validates the category states that:

Necessary nutrients for the body; fruits, vegetables, meat... (1. AM)

Is the one which has proteins, minerals, vitamins; a full feed with a whole variety of foods. (2. GA)

Another participants considers healthy alimentation to be:

That one alimentation which is balanced, let's say, and which meets certain requirements, such as schedules, food variety in order to be healthy. (3. FH)

Alimentation which does not lead to diseases, such as fruits, vegetables, lean meat, skim milk products. (4. AB)

The sum of the nutrients, vegetables, meat, fiber, low trans fat. (5. LF)

Nutrients, fruits, vegetables, meat, fiber, cereals. (7. VO)

They include fruits, vegetables, all that can be considered legumes. (8. MM)

The World Health Organization (2018) suggests that healthy alimentation be achieved by an increase in the consumption of fruits, vegetables and legumes, by the intake of around 30 % of fat, almost 10 % of sugar and by the intake of salt below 5 grams per day, which equals less than 2 grams of sodium per day. (1) Moreover, Reyes Narváez et al. performed a study about healthy alimentation in university students of the courses of nursing, obstretics, accounting, law, agricultural engineering, food industry engineering and civil engineering. The authors found out that most of the studied population has a medium level of knowledge on healthy alimentation. In this study, significant differences can be observed between the healthcare university students, such as those of nursing and obstretic courses, and those students of the engineering field since healthcare students displayed a higher percentage of knowledge on the matter. (12) This is largely due to the reflection on alimentation that took place many years ago from which it was established that nutrition is a key factor in preserving people's health and in maintaining order among groups. (13, 14)

In the same way, the results of a study conducted in Rosario, Argentine Republic, reported that studying about healthy alimentation at the university contributes to the comprehensive training of students and, most importantly, of future healthcare professionals. It is necessary to investigate if the university students' food practices are healthy, that is, if they actually incorporate the knowledge covered on the importance of proper alimentation throughout the different life stages. (15)

Then, this is necessary since university life entails various changes which affect the students' lives in many ways, such as independency from their families, the coexistence of academic and working life, as well as cognitive demand, among others, all of which has an impact on their eating patterns. (16-19) Another study carried out in Mexico proved that bad eating habits, such as not having breakfast and acquiring fast food, had adversely impacted the university students' nutritional status. (20) Moreover, the conclusions from a program on prevention, eating disorders and obesity in Mexican university students reported that providing information about healthy alimentation, while essential, is not enough. Environmental changes are determinant as well as tackling the issue from within the family and school community. (21) It was also reported that there are contexts nowadays which cause the spread of eating disorders since the media repeatedly disseminates images of how the perfect body should be, thin for women and buffed for men, and, at the same time and in a contradictory way, it shows messages about pre-cooked products and the selling of low-priced, nutrient-poor products. (21)

The nursing students who participated in this research were able to identify the various foods that are part of a healthy alimentation; however, when it comes to implementing this knowledge in their daily lives, they pointed out various justifications for

not being able to select healthy foods at this stage in life. This does not match the previously mentioned studies. In other words, knowledge, suggestions and information, among other elements, are not enough. It is a matter of spreading awareness of healthy alimentation in order to lead people into making a personal decision and, as a consequence, into acquiring recommended eating habits which will have a positive impact on the students' health.

The second category is related to the view that *a healthy diet is that one consumed by sick people*. Sick people's diets consist of a customized feeding plan in which suitable food is selected with the aim of achieving a therapeutic effect on a certain pathology, guaranteeing a good nutritional status that leads to a better quality of life. The students' view on this category is the following:

Trans fat free, it does not have carbohydrates. (1. AM)

It depends on the pathology; if the person is a diabetic, the alimentation will have to be low in carbohydrates; if the person is a hypertensive, it will be low-salt and, depending on the weight, low-fat, considering the functionality and characteristics of each person. (6. GS)

Food containing carbohydrates, fat, proteins, but at certain quantities. (9. AA)

The WHO reported that healthy eating habits prevent non-communicable chronic diseases such as diabetes, hypertension and obesity, among others (1). In Latin America and the Caribbean, the coexistence of famine, malnutrition, micronutrient deficiencies, overweight and obesity is due to the lack of access to a healthy alimentation. (22) Healthcare university students have access to specific information, which does not seem to lead them to healthy practices since they claim not always being able to implement these practices in their own lives and they keep on choosing unhealthy habits. (23) The results of a study carried out in Bolivia showed that junk food is determinant of overweight and obesity. (24) There are habits which predispose the development of excess malnutrition and being able to determine them is key to the promotion of healthy habits. (25, 26) Some risk practices were identified, such as self-medication and the reduction of protein consumption in the diet. (26)

The students recognized that a healthy alimentation is one which must be followed by people with different pathologies in order to preserve their good health. In view of this situation, with the aim of coping with and maintaining the disease at a low level, it is important that individuals have in-depth knowledge about their specific situations and, on this basis, incorporate appropriate knowledge and share it with others. In this way, they can gain support from others as well as expand and share learnings which are useful in successfully solving the issues related to their eating habits.

In order to identify the students' food choices, their opinions were categorized. On the one hand, the family economic situation was taken into account and, on the other hand, the choice of food for preparation and consumption.

The category of family economic situation in relation to the purchase and preparation of food refers to the money destined for acquiring and preparing the food for consumption at the students' homes.

When I go to my parents' house and when I invite friends over to my apartment, we share the costs so that the money is enough. (1. AM)

The money for food comes from my dad, my mom and I; otherwise, it is not enough. (2. GA)

My mom is the breadwinner; sometimes, it is not enough to make ends meet. (3. FH)

We both buy the food so that money is enough. (4. AB)

I contribute to buying food so that money is enough. (5. LF)

When I go to my parents' house, we all share the cost of food; otherwise, eating is not possible, we are a lot of people. (6. GS)

The costs are shared by the two of us; otherwise, there is no way money is enough. (7. VO)

My dad is the breadwinner, he is the only one who works. (8. MM)

When my friends come over, we all contribute to buying food, that is, yes, we share the costs; in fact, if I invite them over it is because we all collaborate since my income is low and it is not enough. (9. AA)

In Latin America and the Caribbean, food insecurity is defined as the partial or total disruption of food access, and it affects 187 million people. It manifests itself in various ways in adulthood; around 55 million of men suffer from food insecurity against 69 million of women. (22) The students from Córdoba, Argentina, mentioned in this report are not excluded from this situation.

Food security is a global concern. However, in spite of the implementation of international policies to promote it, still very little is being done to understand the food security, health and nutritional problems in the young university population. (27) This finding is related to what was previously stated by the students since the economic situation they described has an effect on healthy food access. It has been proved that alimentation changes over time and that it is influenced by socioeconomic factors which interact in complex ways and which establish one's own dietary pattern. (1) This is similar to what the students claimed. The results found in a group of Costa Rican women in reproductive age showed that the availability and consumption of food may change in relation to the socioeconomic level. (27) What Bekelman et al. found (27) coincides with what was stated by the students who participated in this study. In the same way, the findings of a study carried out in Chile show that the socio-demographic factors and the eating habits play an important role in life satisfaction related to alimentation. (28)

Besides, another study reported a medium level of satisfaction in relation to economic well-being; the income covers the basic needs of nursing professionals who work at intensive care units in Colombia. (29) The same situation was observed among our students. On the other hand, there is also a coincidence with some findings from a study conducted in Quito, Ecuador, which claimed that private university students have the same food security as the public university students have, although the former display higher food access. (30) In Ecuador, individuals' difficulties to access the basic family shopping basket were identified. There is enough food to meet the alimentary needs, but the cost of food and unemployment affect the economic situation of Ecuadorian families. (31) A similar situation was found in our study.

The category of *selection of food for home consumption at breakfast, lunch, afternoon snack and at dinner* refers to the biological, economic, social, cultural and political aspects which determine the selection of food for its preparation and consumption at the students' homes or at the different places frequented by the students, such as the Nursing School.

I choose food and prepare it according to my schedule and I do not consider them as healthy. (1. AM)

My mom chooses them; otherwise, I take over when I am at home, in which case, according to my knowledge, they are not healthy. (2. GA)

My mom chooses the food for lunch and I choose it for dinner since I cook whatever is at hand and I do not check if it is healthy. (3. FH)

My husband and I choose the food; sometimes he does it, some other times I do it, or we do it together. Sometimes we prefer eating healthy. (4. AB)

My mom and I choose the food; sometimes they are healthy, some other times they are not that healthy. When we have time to make them they are healthier. (5. LF)

I choose the food, I live alone. I do it all by myself and none of it is healthy since I do not have time to prepare it. (6. GS)

Generally I choose the food; I sometimes try to choose healthy ones. (7. VO)

I choose some of the food, my mom some other food; not that healthy. (8. MM)

Depending on the time and money available, I choose and prepare more healthy food; money is not enough to buy healthy food every day. (9. AA)

Regarding the different options to acquire healthy food at the Nursing School or at places frequented by students, the students shared the following views:

No, there is no healthy food, we have to buy it elsewhere; I choose to eat cookies to share them with my classmates so that it is cheap for everyone. (1. AM)

No, there is no healthy food; I think that there is a lack of fruits and vegetables. There are a lot of carbohydrates, a lot of sandwiches, and that is not good. It would be great having what you could find in other schools; a healthy school canteen to get flan, jelly. It would be great that they implement this at the cafeteria, at least. I choose to eat a sandwich. (2. GA)

No, there is no healthy food at the little school cafeteria; they do not even have a kiosk. I prefer eating cookies or some candy. (3. FH)

No, there is no healthy food. I buy crustless sandwiches, biscuits or cookies. Depending on the time, I buy salty or sweet. (4. AB)

At the Nursing School there is no healthy food, there are other things. They sell this menu at the cafeteria, but I do not buy it due to lack of time and I really do not know how cheap it is. There is a small variety of food and there is a lot of flour-made food.

Then, it is very difficult to find something that you want. You have to go to the B rooms; there is a large variety of things there. There is granola, dried fruits, lots of fruits; there are other things to choose from but they are far away, so I always end up buying some cookies. (5. LF)

No, there is no healthy food at the Nursing School. I always end up buying sandwiches, cookies, or something cheap. (6. GS)

Yes, at the canteen, they measure the food in kilos so there you can choose mashed potatoes; salad is what I buy when I am hungry. Sometimes, I also buy cookies, depending on the day of the month. (7. VO)

Yes, I believe that, yes, fruit salad is the only thing which falls within healthy food; then, fast food is all there is, but I have not seen promotions such as 1 apple at this price or 2 apples at this price. We as a group always buy croissants or cookies which are cheaper. (8. MM)

What I understand as healthy alimentation, no. There is no such thing here. To buy, there is fatty stuff, overheated or freezed products, and that is not healthy. It will surely fill you up, but, when talking about something healthy, it has to be an apple, a banana or buying fruits. It is not possible to buy it, but they do not cook a lot of vegetables either, let's say, they normally cook mashed potatoes; we all buy cookies or sandwiches together in order to share. (9. AA)

The issuing of the Dietary guidelines for the Argentinian Population (GAPA) is a key tool to expand the knowledge which promotes the creation of eating and nutritional behaviors, which are equitable and healthy. All of this is aimed at encouraging the choice of food, taking into account epidemiological, social, economic and cultural factors that inspire the enhancement of eating habits and food consumption, improving the health status and quality of life of Argentinians. (32) The students' statements show that they do not consult these guidelines when selecting food. At the same time, a study reported that food services at universities set the perfect scenario to promote the habits of a healthy lifestyle among their students. (33) The opposite was found at the Nursing School since the participating students do not have access to healthy food due to the current food offer or to the food's high cost.

Most street food consumption is observed among young people. The interviewees perceive street food as being less hygienic as they grow older. While the choice of food for consumption of older subjects is related to what they consider rich, tasty, and to food availability in the places they frequent, consumption preferences of youngsters are related to lack of time for food preparation and to low-cost food. (34) The previous study matches our students' statements regarding food availability, the lack of time for the preparation of food and to costs. The increase in the production of processed food, the rapid development of urbanization and the changes in lifestyles paved the way for a change in eating practices. (1)

Conclusions

The study was useful in understanding the nursing students' perception on alimentation and mode of consumption from a set of various narratives related to the students' university, family or social spheres in which they lead their daily lives. The participants consider that healthy food is the one which promotes good health, the one which

is suggested to address health issues and that one which is part of an eating pattern they implement in their lifestyles as a result of their own experiences.

The nursing students have developed inadequate eating patterns and habits due to many factors which are part of university life such as study, job, lack of time, economic situation, living alone and the food culture the student acquired by eating certain types of food with their family of origin. These factors that constrain the choice of food are not problematic. On the contrary, students endure them in a natural way. This is mainly due to the fact that they must reach a goal in a short period of time, such as graduating from the Licentiate Course. They have lessened the importance of the health adverse consequences that may arise from the consumption of food which does not fall within the concept of a healthy alimentation, such as the chance of suffering from an early form of a chronic, non-communicable disease.

It is important to consider which is the best way to deal with promotion and prevention through the implementation of programs focused on the practice of healthy eating behaviors that allow awareness and a change in these eating habits. It is also necessary to devise new spaces at the Nursing School where students can have easy access to healthy food.

One of the difficulties encountered during this study has been searching for previous studies related to this topic; in fact, a great amount of the information came from quantitative approaches and not from qualitative ones.

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