Health education and the municipal health network: practices of nutritionists

Abstract Health education must be seen as an instrument used to promote quality of life. The objective of this study was to evaluate health education practices of nutritionists in a municipal health network. This is a qualitative study using Grounded Theory. Interviews and observation of educational activities were carried out. The use of materials was evaluated, together with attempts to engage the service users. Five analysis categories were applied. The intention of raising awareness and changing habits highlights the preference of professionals toward actions that are articulated and consistent with reality. Productivity valorization, insufficient training, and lack of physical structure were mentioned as restrictions. Most respondents did not evaluate results; they believe in sharing knowledge as a process that transforms reality; and defend the multidisciplinary approach and care by putting the concepts of integrality and equity into practice. The nutritionists’ concepts of health education guide their professional performance, as they reflect the perspectives of the educational practices adopted.

Key words Health education, Food and nutrition education, Nutritionists

Mariana de Sousa Nunes Vieira (https://orcid.org/0000-0002-4832-6494) 1
Karolina Kellen Matias (https://orcid.org/0000-0002-4527-1467) 2
Maria Goretti Queiroz (https://orcid.org/0000-0002-7363-4835) 3

1 Programa de Pós-Graduação em Ciências da Saúde, Universidade Federal de Goiás (UFG), Praça Universitária s/nº, St. Universitário, 74605-220 Goiânia GO Brasil. marisnunes.nut@gmail.com.
2 Pontifícia Universidade Católica de Goiás. Goiânia GO Brasil.
3 Faculdade de Odontologia, UFG. Goiânia GO Brasil.
Introduction

Health education activities traditionally use teaching strategies based on the transmission of knowledge, without, however, considering the individual’s particularities. This method, called ‘the banking model of education’, consists of the deposit of information and requires the student to absorb the knowledge transferred by the educator.

By doing so, the professional transmits information, rules and prescriptions aiming to avoid or treat diseases, without considering the individual conditions of each person. This *modus operandi* ends up exempting the professional from any responsibility for the individual’s health, since the purpose of this interaction does not allow the sharing of experiences and the exchange of information between the parties.

As a result, health education started to be reconsidered based on changes in lifestyle, which disseminated the idea of health as the result of the determinants that involve people: the biological, mental, social and cultural conditions to which the individuals are exposed. From this perspective, health education practices have turned their attention to preventive actions and not primarily the curative ones.

By assuming this new attitude, health education becomes an important instrument, capable of promoting changes in the population’s behavior. Thus, health education promotes in the individual and in the group, the capacity to analyze their reality, as well as to decide common actions with health professionals, creating a dialectical relationship.

Regarding the education practices by nutritionists, it is worth mentioning healthy eating as one of the health promotion actions that comprise their performance in Primary Health Care (PHC), also emphasizing this level of health care as a strategy to integrate curative and preventive actions. This redirecting care model contradicts the biologicist conception that prevailed in Brazil before the creation of the Unified Health System (SUS, Sistema Único de Saúde).

The Family Health Strategy (FHS) is responsible for implementing PHC actions, focusing on the most prevalent health problems and the groups that are most vulnerable to illnesses. The FHS proposal must take action in favor of equity to mitigate the risks that surround a certain community.

The main goal is the prevention of diseases and injuries, by encouraging the adherence to healthier habits. One of the objectives of the FHS is the social production of health, based on the exchange of information and experiences between professionals and the assisted families, using health education as a resource.

In Primary Care, the nutritionist can join the Family Health Support Center (NASF, Núcleo de Apoio à Saúde da Família), recently called the Extended Family Health and Primary Care Center (NASF-AB, Núcleo Ampliado de Saúde da Família e Atenção Básica), with the publication of the new National Primary Care Policy (PNAB, Política Nacional de Atenção Básica). The NASF proposal is to ensure effectiveness and resolutivity in health care, in addition to increasing the scope of actions with the inclusion of multiprofessional teams to contemplate comprehensive care.

NASF actions cover two dimensions: the technical-pedagogical, in which the team offers support to the management and helps in building the unique therapeutic project and in the continuing education of the teams; and the clinical-assistential, which covers individual care, home visits and educational health practices in groups.

Based on the concept of expanded clinic, contemplated in clinical-care actions, the nutritionist understands, in an comprehensive conception, the health-disease process of individuals and collectivities. When exercising the welcoming and listening actions, the professional identifies the real living conditions prevalent in the adjoined territory.

Among the health education elements, we can highlight the practice of Food and Nutrition Education (FNE), a process in which the nutritionist is the mediator, by developing educational activities that seek the exchange and construction of knowledge, making the user an active subject in the process, which more effectively contributes to changes in the individuals’ eating behavior.

According to the Ministry of Health (MH), FNE is an area of production of knowledge both in the context of Human Rights, Adequate Food, as well as in Food and Nutritional Security in all dimensions and levels of public management.

It is a multiprofessional attempt to stimulate autonomy regarding the choice of healthy eating habits, provided that, during its application, the nutritionist uses resources guided by active methodologies, such as problematization, which allows community interaction and addresses the nuances of eating behavior in their general aspects, that is, social, biological and psychological ones.

Considering this, it is the nutritionist’s responsibility, acting as an educator, to investigate
the habits of the population with whom they will work, aiming to know this population's peculiarities. The nutritionist needs to understand how the individual conceives the idea of eating behavior and encourage them to confront the social and emotional representations of the foods that they deal with. Based on that, new comprehensible meanings will be concomitantly built with health, pleasure, well-being, health and environmental issues.

Based on these reflections, this study aimed to evaluate health education practices by nutritionists in a health service.

Methods

This is a qualitative research, as it is intended to expand the view regarding the values, practices, lines of action and habits of groups about health. This type of investigation pertains to the study of perceptions and opinions, to the investigation of groups of people and their stories from the perspective of the individuals themselves, and their relationships with the world. This approach makes it possible to explore little-known social events related to restricted groups and contributes to the construction of new ideas and concepts during the investigation, therefore being used to develop new hypotheses and new qualitative indicators.

Within the scope of the qualitative research, we can find a variety of methodological strategies, of which we chose the inductive analysis of the data that generated the theory. In this strategy, the data are systematically combined and analyzed throughout the investigation process, called Grounded Theory.

The study included nutritionists who perform health education activities, allocated in the Municipal Health Secretariat (MHS) units of a municipality in the Midwest region of Brazil, covering the Health Districts (HD), the NASF and the health units, which comprise spaces for educational activities. For the Grounded Theory (GT), the population in which the study was carried out is called theoretical sampling.

Thirty-four nutritionists from the Municipal Health Secretariat of the assessed municipality were identified, and all were invited by email to participate in the study. The theoretical sampling included nine nutritionists that accepted the invitation, all females, who had a permanent employment bond with the municipality, being civil servants.

The theoretical saturation of the data is reached when the information starts to repeat itself and no new data is found. In this study, the theoretical saturation was reached at the ninth interview. The collected data were sufficient to carry out the study and met the objectives proposed by the investigation.

Data collection was performed by the researcher herself, from February to April 2014, at each nutritionist's workplace, who signed the Free and Informed Consent Form (FICF). The interview was recorded on a cell phone and later transcribed to the evaluation software (WebQDA), and each lasted approximately 15 minutes.

The technique of simple observation of these professionals’ routine was employed in order to know how the educational activities were performed by the professionals: used resources, interaction with the participants, monitoring and evaluation of the results.

Observation is a technique that has a crucial role in qualitative research, as it has the advantage of the direct perception of the facts, without intermediation. In this study, simple observation was used, in which the researcher is a spectator, the observation is spontaneous and informal, but it goes beyond fact verification. A field diary was used as an instrument to record the observed elements for subsequent data systematization. This diary was also used by the researcher to take notes of the so-called "reminders", that is, ideas and observations that were emerging and that helped in the development of the theory.

After on the professionals' reports, they were transcribed, and each paragraph was analyzed, line by line in order to search for the facts. This phase is called coding. From these reports and observations, excerpts were extracted, and the main points were identified by codes. These were grouped into similar concepts. From the agglutinated concepts, the subcategories and categories that formed the basis for the creation of the theory were established.

The process described above is called the conceptual model, which covers the entire discussion from the information obtained during the field research. After data collection, transcription, coding, and categorization, the researcher extracts coherent ideas and concepts from the analyzed material and, in the light of the literature, writes the theory. Therefore, it is understood that this method involves the generation of theory based on data. These categories will be highlighted throughout the text.

This study was carried out according to the current norms established by Resolution
N.466/12 for the development of health research in Brazil and submitted for approval by the Research Ethics Committee of Universidade Federal de Goiás (UFG).

Results and discussion

Of the nine professionals that were interviewed, only five had scheduled educational activities up to the collection date. Therefore, five health education activities were observed.

The reports generated induced and emerging categories, which allowed a discussion about the role of nutritionists and the reality of their professional practice. Some results found were not configured as categories; however, they are important data to further characterize the work of the interviewees.

In this research, five categories were defined for the analysis: Limitations in professional performance; Approach techniques in educational actions; Aim of the educational practices; Evaluation of results; Possibilities for expanding health education actions (Chart 1).

First, the data that were not configured as categories will be presented, aiming to characterize the daily practices of the nutritionists who participated in the study. Then, the relevant categories and notes will be presented.

Regarding the educational practices carried out by nutritionists, the target audience “[...] is comprised predominantly of adults linked to MHS programs and those with greater adherence are the ones attending the hypertension and diabetes (HIPERDIA) program; as most of these individuals are elderly, they have more time to participate in these activities”11.

It can be inferred that this is possibly due to the fact that the elderly have more free time to attend the proposed activities. In this sense, Viana et al.16 found similar results in his study, stating that the users participating in physical and educational activities are mostly elderly, female and have some type of illness. It hardly involves adults and young individuals, due to the lack of available time, caused by employment. Other studies17-19 also found a higher frequency of retired people and the homemakers in educational activities for hypertensive and diabetic patients.

The nutritionists reported that there is a prevalence of hypertensive and diabetic patients among the users and that they show better adherence to the programs offered by the health units: In our region, most units request activity on food and nutrition for the elderly group, not specifically for the elderly, but for the hypertensive and diabetic group.14. The results obtained through the observation corroborate the reports in the interviews. Of the five observed groups, three of them involved, mostly, the elderly in their activities: the HYPERDIA group, community therapy and diabetes.

The patient’s adherence to a certain therapy depends on several factors that involve the professional-patient relationship, the treatment settings, access to the health service and the prescribed medication, among others. For that, it

Chart 1. Summary of the categorization of the interviews.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sub-categories</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations in professional performance</td>
<td>Management</td>
<td>Lack of structure; Insufficient training; Productivity</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>Lack of planning and evaluation</td>
</tr>
<tr>
<td>Approach techniques in educational actions</td>
<td>Practical and demonstrative activities; Strategies that facilitate comprehension; Interactivity; Level of schooling of the target-audience; Need of the group;</td>
<td></td>
</tr>
<tr>
<td>Aim of the educational practices</td>
<td>Appreciating speeches and experiences; Awareness and change of habits; Previous knowledge; Appreciating group work; Quality of life</td>
<td></td>
</tr>
<tr>
<td>Evaluation of results</td>
<td>Body weight, blood glucose and eating habits; Feedback</td>
<td></td>
</tr>
<tr>
<td>Possibilities for expanding health education actions</td>
<td>Multiprofessional team; Integrality and equity;</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data obtained by the author.
is important to use a clear language, so that the patient can understand it, in addition to an ethical interprofessional relationship. Adherence is a multidimensional phenomenon, involving all actors engaged in the treatment of diseases: the health system, the professionals, the patient and the family.

Adherence is related to health care planning, the provision of educational activities that promote interaction between the team and the community and among the team’s professionals, actions that motivate the population to participate, to desire to learn new concepts and share experiences. Very often, the activities carried out are associated to the delivery of medication and renewal of prescriptions, being seen as requiring mandatory presence and not as a moment of reflection and clarification of doubts. The professional language must be adequate to the professional’s objectives and intentions, and the active listening to the interests and difficulties of the community must be considered when planning educational activities.

The educational materials and strategies most frequently used by the professionals disclose the work techniques and the way educational activities are developed. The type of materials preferred by the professionals comprised posters and folders: I’ve used folders and posters too. When the groups are smaller, I ask participants to read them and we talk about them.

Based on the observations, it was observed that of the five activities, three addressed the content proposed in the MH materials related to the food pyramid, healthy eating for hypertensives, diabetics and pregnant women. Some professionals restrict themselves to the recommendations of these materials only, while others work on issues that go beyond food.

Regarding the strategies, lectures and conversation circles were listed as the most frequently used: As strategies, I use lectures and also conversation circles; we do not have the structure for a workshop here. The conversation circles are directed to a specific topic, with discussions that involve people’s reports, the interaction between them, allowing the exchange of experiences and ideas. It was not possible to observe the accomplishment of the conversation circles.

The Limitations in professional performance category originated from two subcategories: management and professional. The management subcategory combines the factors mentioned by the interviewees (codes): lack of structure (material, physical and audiovisual space). The issue of the material is a major limitation that we have to do the work in groups, we have no resources here... in fact, there is a great disincentive to health education activities...

This speech shows a certain dissatisfaction of the professional in relation to the performance in health education, associated with material limitations and the lack of support from the municipal management. The availability of materials and an adequate physical environment are advantages for the good development of educational actions, both at the individual and group levels. The lack of these materials and the limited physical space make it difficult for users to have access to the services.

The lack of training was also listed as a limitation to work in the health education field, as well as the valorization of productivity to the detriment of educational activities in group care, which value quality and better access to the population.

The professional subcategory includes issues that can be possibly interpreted as failures by the nutritionists in relation to performance and also as work overload when exercising their function. Considering the reports, it is clear that the lack of activity planning and the evaluation of the performed actions’ implications are common.

This report emphasizes that the lack of planning hinders the effective development of educational actions, being seen as a professional performance limitation: [...] there are many responsibilities [...] so there is not much time for us to do this previous planning, which would be the ideal, so we work on improvisation [...] I2.

The position’s accumulation of responsibilities makes it difficult, most of the times, to monitor the users, as there is no link between the professional and the health unit, making the demand a fragmented one. This attitude implies a disorganized and weakened health education practice.

In relation to the lack of evaluation of the educational actions, most professionals reported not applying the tools systematically after the activities. They declared that they trust the knowledge that experience has given them: I ask them, ‘Do you have any doubts?, which they usually have on a daily basis, it is mostly done according to what they ask, I do not do an assessment myself. I5.

The Approach techniques in educational actions category involves techniques that attract the participation of users in the construction of shared knowledge. Some techniques were mentioned, such as the prevalence of practical and demonstrative activities. Other important
elements that are present in the interviewees’ practice comprise the strategies that facilitate the understanding and interactivity when conducting the activities: [...] the more practical, the more palpable, visible to them, the more they retain of this activity [...] I use a lot of food, utensils... to show them the preparation of dishes and the food groups. 11.

The professionals also pay attention to the level of schooling of the target audience, thus emphasizing simple means of communication in the language and materials used, so that information can be better understood. These strategies relate to the dialogic model of education, as the aforementioned proposals promote community participation and facilitate the involvement of the individuals in the construction of shared knowledge; however, they require the professional’s ability to work as a facilitator of the process24.

Another aspect raised refers to the group’s need. The participants pointed out that the topics they worked on during the activities are guided by the reality of the group, by the most common health conditions, and the main complaints and interests of the population.

The Aim of the educational practices category highlights the participants’ concerns about the quality of the provided services. They seek to take into account the speeches and experiences of users at the time of the activities and aim to raise community awareness to achieve the goal of changing habits and, additionally, some interviewees also pointed out the valorization of group work. Group activities allow the integration of different people, but in the same situation and with similar objectives. This integration facilitates the exchange of knowledge and experiences and the use of dialogue as a means of communication in the groups contributes to the emergence of new concepts about the discussed topics25.

Food and nutrition are proposals that have been discussed since the health reform and the creation of SUS, with these thematic fields of SUS action having been foreseen in the Organic Health Laws. The area of food and nutrition has become a protagonist in the process of comprehensive health care, having been consolidated as a policy (National Food and Nutrition Policy). The nutritionists’ reports in relation to educational strategies, carrying out group activities, diversifying topics, and interactivity summarize the challenges of health production in the scenario of the nutritional care organization, especially in primary care26.

Still regarding the aims of the professionals, some have shown in their reports an expanded view of health, in an attempt to promote comprehensive care regarding the needs of the individuals. The interviewees seek the health conditions in a dimension other than food, they contemplate other aspects that involve the human being, seeking the quality of life improvement: Most of the times I don’t work only with nutritional education... health is a holistic and much more comprehensive issue than just the question of nutrition [...] 13.

Health promotion and quality of life involve factors that involve the government, integrated management, intersectoral actions and healthy living strategies. Educational actions depend on good work by the multiprofessional team, the active involvement of the population and structural support by management, a relationship strengthened by dialogue27.

The Evaluation of results category was defined to gather the types of evaluation of the effects of educational activities elucidated by some interviewees. Two nutritionists mentioned measuring body weight, blood glucose and checking eating habits through verbal questioning and say they use these data as an assessment tool.

Another way to verify whether the target audience has incorporated the knowledge they worked on is feedback. The professionals stressed that they use the feedback that patients give them at the end of the activity, encouraged by the mediator to talk about the content. In the observed groups, an evaluation was carried out at the end of the activities. In all of them, the mediating professionals encouraged the participants to disclose their doubts, questions and what they learned from the activity.

The Possibilities for expanding health education actions category adds the issue of teamwork, partnership and involvement with the multidisciplinary team, as well as the attempt to meet the principles of SUS: integrality and equity; from the planning, development, up to the evaluation of educational actions. Most of the interviewees emphasized the importance of multiprofessional work, reinforcing the idea of strengthening the actions: We also try to associate some topics to others [...] the psychologist is also present, together with the social worker [...] we seek to mainstream the topics through the interdisciplinarity. 17.

[...] the human being is an integral entity and has other concerns as well. When the professional who sees the individual as a human being, who has a family, social, economic factor [...] the resolutivi-
ty and effectiveness of activities are greater. Moreover, the professionals have this perception, it can be observed that they are inclined to putting the principles of SUS into practice, namely: integral and equity. The organization of nutritional care in the perspective of comprehensive care seeks to treat the individual in their entirety; if the individual has a disease, it is not possible to consider only the food that is adequate for that situation. The line of care proposed by the Health Care Networks suggests the horizontalization of care, that is, also consider the related factors, such as the medications used, living conditions, housing, work, income, family and life habits and the conduct to be taken, from disease prevention or complications to recovery and treatment.

The conceptual model

The Grounded Theory recommends the creation of the conceptual model, aiming to present and explain the investigated problem that emerged from the facts and allows making correlations between the findings and the existing literature.

Based on the observations, some interviewees' reports were confirmed, such as, for instance, the nutritionists who used food to work on the definition of portions and food labels. This practice corroborates the educational strategies that rely on the demonstration or simulation as learning or reinforcement strategies.

The professionals appreciate the involvement of users in educational activities, encourage a more active participation so there is sharing and exchange of knowledge and experiences, acting as a communication facilitator between the participants.

When reflecting upon the elements of the interviews and observations, it is evident that many nutritionists have come to view health education through the lens of the dialogic model. This perception can be reaffirmed by the interviewees' speech, when they defend the active strategies in their activities to overcome the technicist view, which has a merely curative characteristic.

The Aim of the educational practices category depicts what professionals really prioritize when working with health education. The fact that they value the speeches and experiences of users and consider their previous knowledge, conveys the sharing of information, which is a condition for the joint construction of knowledge. The professional listens to the user's report and, facing their reality, conducts the educational process as a mediator. The intention of raising awareness and changing the habits of the population highlights the professionals' concern in developing actions that are articulated and consistent with the context in which they work.

The valorization of productivity was raised by the interviewees as one of their limitations in professional performance. Primary care prioritizes health promotion; however, it lacks the necessary support to carry out actions that promote this objective. Also about the management, complaints of insufficient professional training and lack of structure to carry out educational activities were emphasized. It can be observed that this situation depicts a sequence of negative impacts due to the lack of support. If the managers privilege individual consultations, the focus of investments will be geared toward this end, against the collective activities of health education. When professionals expand their views beyond their area of expertise, they allow themselves to go beyond the user's complaints. This indicates the comprehensive view that the dialogic model of health requires from the professional.

It was observed that most interviewees do not evaluate their results, possibly a consequence of the lack of planning. Some interviewees measure concrete data, such as weight and blood glucose, in order to evaluate results. If the obese individual shows weight reduction or if glycemic levels decrease in the diabetic patient, this may represent the practice of healthier habits. Other professionals prefer to rely on the users' feedback, encouraging them to clear their doubts at the end of activities, as well as express what that topic added to their individual knowledge. This unsystematic evaluation format allows the professional to get feedback based on what they proposed to the group; however, it is a subjective method, and depends on how they will analyze this information.

Finally, the interviewees richly contributed to the study by suggesting Possibilities for expanding health education actions, which they believe are essential for the implementation of the dialogic model in health. They stressed the importance of establishing a partnership with the multiprofessional team, allowing an exchange that represents the search for quality of care.

When carrying out a health action based on the dialogue, the interaction with the community, using practical materials and active strategies,
with a well-developed planning, containing tools for the evaluation of results, the professional aims to raise the user’s awareness to transform their reality. Based on this principle, the professional must identify all the needs of that individual to work each one in its adequate proportion\textsuperscript{28}.

**Final considerations**

The Grounded Theory allowed the construction of the so-called conceptual model. The study intended to contribute to the nutritionists’ reflection regarding their professional performance, to encourage the search for comprehensive training in health education and education, to invest in research in this field, so that the health promotion process is properly worked on. Furthermore, the intention was also to expand the construction of new knowledge by the actors involved (users, managers and workers). The qualitative research provides reflection, criticism and possible transformation of reality, as it allows the analysis of the meanings of the speeches. Hence, this study contributes to the valorization of research such as this.

Regarding the nutritionists’ conception regarding health education, it is clear that the majority defends the idea of the need to share knowledge, of a liberating process, of the transformation of the human being’s reality, corroborating the dialogic model.

The strategies that are most often used in educational activities involve practical and demonstrative elements. Not all the participants’ reports who had their activity observed were consistent with the practice, regarding both the strategies and the materials used. Due to the study limitation, which did not allow the observation of a sequence of activities, it cannot be stated that there is a contradiction between discourse and performance.

The nutritionists emphasized the lack of courses or training on educational practices offered by the management of the Municipal Health Secretariat. The lack of management action aimed to improve the service, especially regarding educational activities, leads the professional to seek, on their own initiative, continuing education or to learn from their experience in the field of work shared with other professionals, a practice that is often disconnected from theory.

Based on the undertaken reflection, after analyzing the data, we believe it is important to consider the professional’s profile. If the nutritionist has a traditional conception, they will possibly use the recommendations that have already been published and reproduce this knowledge, probably not being concerned with the used methodology. On the other hand, if the professional agrees with a dialogic perspective of health education, they will explore the contents, paying attention to the techniques and will also be concerned with the effects resulting from the processes employed in the health education of their target audience.
Collaborations

MSN Vieira participated in the study conception and design, data analysis and interpretation, writing and review of the manuscript. KK Matias participated in the data analysis and interpretation, writing and review of the manuscript. MG Queiroz participated in the study conception and design, data analysis and interpretation, writing of the manuscript and, as the research advisor, participated as a reviewer of all stages in the preparation of the manuscript. All authors approved the version of the manuscript to be published.

References