Some views of health professionals and basic health care unit users concerning nutritional education

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Abstract
Nutritional education is a participatory process of knowledge acquisition concerning a healthy diet. The implementation of nutritional education in the public health care system is put into question based on a survey carried out with health professionals, and with users of one Basic Health Care Unit (UBS). The execution of nutritional education requires health professional specific knowledge in order to approach alimentary problems. The nutritionist is not duly involved in the public health care. Based on quantitative and qualitative methodologies, eight UBS health professionals were interviewed in order to verify their professional and personal experiences concerning nutritional education. There were 306 users interviewed, which is a representative sample of the population which is assisted by the UBS, in order to analyze the influence of such activity in their health. The interview results show that the professionals have some difficulty in approaching information concerning almentation and that they believe there is some room for a nutritionist’s participation in a multi-disciplinary team. Around 97% of the users believe that nutrition interferes in their life quality and 19.28% of them believe that nutrition problems are related to education. Nutritional education, as a structured program, does not exist. The mobilization of nutritionists in the exercise of their function and in meeting demands of health professionals and health care users is necessary.

Keywords
Nutritional education, implementation, public health
Introduction

Over their 60 years of existence, Brazilian nutrition courses have been contributing to developing a Brazilian epidemiological nutritional profile. Several scientists have pointed out deficiency diseases, such as: protein and calorie malnutrition, hypovitaminosis A, pellagra, iron deficiency anemia, and other problems of public health, which have been presently juxtaposed by diseases originating from excesses and low-quality nourishment, such as obesity, and dyslipidemia, among others (VASCONCELOS, 2002).

The prevalence of malnutrition has been reduced in Brazil lately. During the last 25 years, it has been reduced by around 72% in children and there has been a significant decrease in adults, and therefore, is not really epidemiological problem anymore. On the other hand, the prevalence of obesity in adults has tripled in the Northeastern region and doubled in the Southeastern region (BATISTA FILHO et al., 2003).

Nutritional education is an important tool in the adoption of eating habits. In epidemiological projects, especially in the ones whose results point out the co-relation between eating behavior and disease, nutritional education has been used (SAHYOUN, 2002).

The practice of nutritional education started in the 1940’s, in conjunction with the populist policies of Getúlio Vargas. At that time, such practices had privileged status and were considered to be one of the bases of government programs for worker protection. (LIMA et al., 2003)

VALENTE (1986) and LIMA (2000) point out that the nutritional education was initially based on the ignorance myth, a factor which was considered a determinate for famine and malnutrition in the lower-class population, which was also another target for such educational actions. Therefore, the development of proper instruments which could teach the poor how to eat to correct erroneous habits was a priority which involved an educational concept based on the modification of eating behavior.

In the 1960’s and 1970’s, some surveys ordered by the Brazilian government, together with economic studies, confirmed that the main obstacle to proper eating habits was income, and that only structural changes in the economic model would effectively have the power to solve nutritional problems. In this context, the nutritional education programs were abandoned as they had become stagnated (BOOG, 1996).

In the 1980’s, nutritional education once again became critical. A new concept identified nutritional education inability, which was isolated to promote changes in eating habits. This branch of nutritional education understood that it should make a political commitment to make sure Brazilian technical and scientific production help in empowering the popular classes in their fight against exploitation, which generated famine and malnutrition. As a result, the ideas of nutritional guarantees and the concept of nourishment as a human right arose (BOOG, 1996).

As a way to make the provisions of the law on health in the 1988 Constitution concrete, the Organic Health Law 8080/90 was created. In its second article this legislation considers health a basic human right. The third article states that good nourishment is one of the factors that determines and conditions health.

In 1999, the Ministry of Health declared its commitment to fighting maladies related to nutrition, such as: food scarcity, poverty and the complex picture of excesses related to high rates of overweight and obesity, when approving the National Policy of Nourishment and Nutrition (PNAN) This policy has Human Right to Nourishment and the Nutritional and Nourishment Security as its main guidelines.

In May 2004, during the 57th World Health Assembly, the Global Strategy on Diet, Physical Activity and Health was defined. This document reaffirms resolutions by the World Health Organization (WHO) concerning world health and has become a benchmark in the integrated prevention and control of non-transmittable chronic diseases. This strategy covers two of the main risk factors for such diseases: diet and physical activity.

In accordance with WHO’s recommendations, dated June 25, 2005, the Ministry of Health launched the Healthy Brazil Program, which is aimed at motivating the Brazilian people to adopt a healthy lifestyle, incorporate physical activities, anti-smoking programs, and dietary education. In order to make the latter effective, nutritionists will be hired, who will train health community agents to teach and encourage concepts of nutritional to the users of public health services.

In view of the importance of nutritional education in promoting individual health, questionnaires and interviews related to the implementation of such activities in the public health service have been proposed. Based on a project carried out at one UBS in the municipality of Juiz de Fora, in the State of Minas Gerais, the ways nutritional education has been approached by health professionals during basic health care, and the users’ viewpoints on the importance of dietary and nutritional information received from such professionals has impacted their health and well-being are analyzed.

Methodology

This UBS was chosen because it had already received volunteer work from nutritionists. In order to verify the implementation of nutritional education activity it was necessary to analyze various quantitative and qualitative data. BOOG (1996) suggests that the subjective phenomena of social reality, which occur in the daily routine of professions, cannot be described through traditional approaches, as they are not quantifiable due to their subtleness. He even acknowledges that they are no less important when it is desirable to study program implementation strategies and to, above all, identify obstacles that arise, even if they are not acquired in a nomothetic network. Thus it is necessary to search for methodologies which are closer to local practices and
which allow recording subjective data, no matter what qualitative method is used.

Starting from the four axes based on BOOG (1996), which are: "developing knowledge concerning nutrition"; "daily challenges"; "nutritional education in public health services"; "space for nutritional education: space of contradictions", Eleven questions were created to research health professionals' opinions and theoretical knowledge regarding nutrition in their professional and personal daily lives (Annex 1). This data was then obtained through structured interviews, which were recorded and transcribed. There were eight health professionals interviewed: four physicians, three nurses, and one social worker, and they represented the total number of professionals with a higher education that were responsible for nutritional matters in their health unit.

In order to gather data related to user opinions concerning nutritional education and its impact on their life quality, a questionnaire with 8 multiple-choice questions was created (Annex 2). This instrument was employed to obtain a representative sample of UBS users totaling 306, the number which was generated by a computer program called SPSS (Statistical Package for the Social Sciences).

The interviews took place at the UBS during a one month period of work shifts. They were given spontaneously after a professional and user consent form / waiver had been signed. These terms covered the aspects which are mentioned in Chapter 4 of Resolution CNS 196/96 of the National Health Council (Annexes 3 and 4).

This project was submitted to the ethics committee of the Juiz de Fora Federal University and was approved in technical report 206/2005.

**Results and Discussions**

The health professionals’ opinions will be presented in passages from their interviews which have been literally transcribed. In this article we deal with some of BOOG’s (1996) axis. This qualitative part of the survey is very extensive, so for the moment, results will be restricted to some aspects.

Nutrition is mentioned as being part all health assistance given by health professionals when they are asked about the interface of this subject topic with their work.

“If we deal with some factors and do not work with nutrition, something is missing. It is interesting that we have to be educating about that.” (nurse #2)

“Look, as far as health is concerned, in its widest concept, I think it is very pertinent, right? I consider that health has to do with everything, living, sanitation, doesn’t it? As for diet... I think such information is pertinent in my job.” (nurse #3)

“I believe it interferes a lot because we work here, and most of the diseases are chronic-degenerative, you know, they are all related to diet, aren’t they? Because of obesity. The patients who suffer from high blood pressure and from diabetes and who do not go on a diet, I don’t mean an ideal diet, but an average diet, do not have a satisfactory control, do they? If patients who suffer from diabetes do not go on a proper diet, it means we do a job that serves nothing, right? It is as if we were not working. I believe it does interfere.” (doctor #3).

The information which health professional acquire concerning diet that they make use of at work is acquired from informal reading and by exchanging ideas during team meetings.

“Well… I try to study because we do not have references concerning nutrition, at least this is what happens around here, it is something we miss.” (doctor #3).

“Here in the UBS, in my job, with folders, with some readings, with some professionals in the unit, I mean, doctors and nurses. Generally, whenever we have to do something related to nutrition we look for support ... from the doctors, nurses and from something from the health care unit.” (Social Assistant)

BOOG (1999) reports that, most of the time, doctors and nurses acquire their nutritional orientation and education in non-scientific materials, which has been verified by the social worker interviewed. There is one doctor who declares that there is a need for a nutritional references, which seems to demonstrate the lack of nutrition professionals in the public health network as part of work teams.

When the health professionals were asked about the Healthy Brazil Program, which is a recent public health policy created by the Ministry of Health, and which aims at limiting the prevalence of obesity, and also of non-transmittable chronic degenerative diseases, which may be related to such morbidity, they seemed to have a positive view concerning its intentions and valued the presence of a nutritionist in such programs.

However, they questioned what kind of participation and contribution the nutritionists will have for the program to reach its objectives.

“It may contribute and improve what exists nowadays. I consider it an important step. To increase the professional staff in basic health care, once each member has a way to deal with and improve the users’ health.” (social worker)

“Look, I believe it may change our profile, but there is nothing better than nutritionists themselves dealing with users. Otherwise, I would say the situation would be just like the Chinese Whisper game. I first transmit the information, I understand it from my point of view, I transmit it to the users, and so, we would end up adapting it to our reality. The nutritionists do it in another way, they would create an alternative recipe. No matter how much education we have, our guidance will not be complete. Their orientation will be more based on education. Then, that program helps, but it is a long-term solution.” (nurse #3).

“The nutritionists have to deal directly with users, which provide more credibility.” (doctor #1)

Nutritionists are not duly inserted in the population health service supply context, especially in basic health care. At this such level of health care, there are a small number of working professionals. BOOG (1996) sees 12.6%. VASCONCELOS (1991) and GAMBARDELLA et al. (2000) also reported similar results: 6.3% and 10.9%,
respectively. Such results have been frequently demonstrated to be due to the relative absence of positions in the public health institutions. Especially and specifically in Juiz de Fora, where there are no nutritionists.

The Healthy Brazil Program was widely discussed, based on material which is available on websites and on TV and radio stations. There have already been advertising campaigns in the mass media concerning a healthy diet and the fight against smoking. However, really effective participation by professionals as physical and nutritional educators did not happen, due to the lack of determination from state and municipal governments.

Nutritional education must be analyzed as a dialogue taking place between professionals and users. Such conversations should not just be limited to “follow the diet”. On the contrary, it should be a dietary awareness process, educating the user about diet importance, and performed in a liberating way. In order to set up such process, it is necessary that educators have knowledge, not only concerning diet, but also concerning education and pedagogy (BOOG, 1997).

RODRIGUES et al. (2005) affirmed that governmental nutrition and health programs and policies are important for the adoption of a healthy lifestyle, although they may not be sufficient, in themselves, to reach this goal. Health professionals who are involved in these kinds of policies and programs should have theoretical bases to help them inform their public’s dietary behavior. However their autonomy and value as experienced people should be respected.

Health professionals must be aware that public health care users carry not only diseases, but also wishes, aspirations and dreams. Consequently, health care and its relationship to professionals such as doctors, nurses, and nutritionists, among others, must be complete (PINHEIRO et al., 2001).

SANTOS (2005) pointed out that information and communications technologies are important in the nutritional education process and should not overlap the dialogue between health care professionals and users. It is necessary to consider information concerning healthy diet practices and relate them to the social and cultural aspects of each patient.

When it comes to data related to users, diet is considered a factor which interferes with the life quality of 97.06% (Table 1). It is important to take into account the high percentage of users who have such an opinion and the absence of specific nutritional services in municipal basic health care.

The percentage of users who obtain information concerning nutrition from UBS doctors is the same as the percentage of users who obtain such information from TV and magazines. (Table 2). That may be a worrying factor as ALMEIDA et al. (2002) say that TV has been promoting bad diet habits and sedentary habits. In their investigation, it was verified that out of 1395 food ads broadcast, 57.8% were for products in the fat, oil, sugar and sweet groups. There is a total absence of fruits and vegetables in TV commercials.

The educational factor is considered a problem for a proper diet by 19.28% of the users (Table 3), which reinforces the previous consideration concerning information sources in concept development.

Nutritional education should not only include dieting information, since the act of eating helps to make healthy human beings, who should also be aware of their rights and duties, as Brazilians as well as world citizens. Nutrition is a human right which is included, along with economic, social, and cultural ones, and therefore the government is obliged to respect a citizen’s ability to create his/her own diet or have the financial resources to acquire one (VALENTE, 2002).

### Table 1 - Percentage of health users’ opinion concerning the diet interference in their life quality

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Yes</td>
<td>297</td>
</tr>
<tr>
<td></td>
<td>97.06</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2.94</td>
</tr>
<tr>
<td>TOTAL</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Questionnaire applied to users.

### Table 2 - Diet Information source by percentage for health care users

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magazines and television</td>
<td>109</td>
<td>35.62</td>
</tr>
<tr>
<td>Nutritionists</td>
<td>14</td>
<td>4.58</td>
</tr>
<tr>
<td>Doctor</td>
<td>109</td>
<td>35.62</td>
</tr>
<tr>
<td>Family and friends</td>
<td>52</td>
<td>16.99</td>
</tr>
<tr>
<td>None</td>
<td>22</td>
<td>7.19</td>
</tr>
<tr>
<td>TOTAL</td>
<td>306</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Questionnaire applied to users.
Final considerations

The opinions of health professionals and public health care users during interviews point to the need for implementing nutritional education activities in health services, and it is not yet a defined program in terms of how it should be carried out. All professionals say that diet is important for their health as well as for their clients’ health. Diet is an interfering factor in their life quality. The educational factor, which was shown to lack information with a scientific background, is considered a problem for users, and it may interfere with a number of health problems related to nutrition.

Nutritional transitions bring to light the need for educational practices as a resource to promote and recover health. The professionals who are qualified to do this, the nutritionists, are not properly inserted in the basic health care system. When questioning the need for such professionals’ insertion, an affirmative answer was unanimous. It is necessary for nutritionists to fight for their space in the basic health care system.

Through this study, nutritional education was discussed by both health professionals and users. This stimulating discussion should serve as a precedent for further surveys concerning nutritional education and its social importance.

Bibliographic references


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Table 3 - Diet problem classification percentage for health care users

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>68</td>
<td>22.22</td>
</tr>
<tr>
<td>Educational</td>
<td>59</td>
<td>19.28</td>
</tr>
<tr>
<td>Both</td>
<td>179</td>
<td>58.50</td>
</tr>
<tr>
<td>Total</td>
<td>306</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Questionnaire applied to users.
About the authors

Wanessa Françoise da Silva Aquino

Graduated from the Viçosa Federal University (2005). She is currently a professor of the Nutrition Course of the Presidente Antônio Carlos University (UNIPAC). She is specialized in Politics and Research in Collective Health by the Juiz de Fora Federal University - UFJF (2006), and her course conclusion monograph was awarded honors mention by the “Prêmio de Incentivo em Ciência e Tecnologia para o SUS” (Incentive in Science and Technology for the SUS Award) by the Ministry of Health, also in the year of 2006. This work was presented in the 8th World Congress of Public Health, held in Rio de Janeiro - RJ, and in the 2nd COMAN: Congress of Food and Nutrition of the State of Minas Gerais, held in Ouro Preto-MG. She is also specialized in Health and Nutrition, whose area of concentration is Infantile Maternal of the Viçosa Federal University – UFV (2007) and had this course conclusion’s monograph also presented in the 2nd COMAN. She is a voluntary of the extension project called “A relação do processo de trabalho das equipes de saúde com os usuários: orientações básicas sobre alimentação” (The relationship of the work process of the health teams with the users: basic guidelines about food) of the UFJF and published the article “A relação do processo de trabalho das equipes de saúde como os usuários: orientações básicas sobre saúde” (The relationship of the work process of the health teams with the users: basic guidelines about food) in the Brazilian Magazine of University Extension – 2006, based on that work. She worked as a nutritionist, being the technical responsible for a hospital and for a recreational club in the town of Juiz de Fora-MG.

Soraia Augusta da Silva Campos

She is graduated in Nutrition from the Viçosa Federal University (1986). She is currently a visiting professor of the Presidente Antônio Carlos University and a nutritionist of the Administration of the Town of Juiz de Fora. She has experience in the area of Nutrition, with emphasis in Nutrition and Public Health, working mostly in the following areas: nutrition and dietetics, food and nutritional safety, sanitation, diabetes mellitus, and public policies.
Annexes

Annex 1 - Questionnaire for health professionals

1. During your undergraduate course, did you have a subject called “Nutrition”, or was such a topic introduced through another subject?
2. How did you acquire your present knowledge about nutrition?
3. When you need extra information concerning your professional activities, who/what source do you use?
4. To what extent do you believe that matters related to nutrition and diet are related to the performance of your profession?
5. How do you approach matters related to diet and nutrition when performing health care?
6. How do you put into practice the diet and nutrition concepts which you acquire in your daily routine? How difficult are they to follow?
7. What does nutritional education and orientation mean to you? Who is in charge of each activity?
8. What part of the public health care daily routine has space for nutritionists’ participation?
9. When you or a member of your family has had some kind of problem which demanded diet modification, who has provided guidance? How do you evaluate the guidance which was given?
10. Several Brazilian and world governmental actions and projects have been providing some guidance concerning diet standards modification in order to promote and recover health. From your point of view, what factors are producing the increasing number of diseases related to diet? What are your suggestions to change such situations?
11. Considering the strategy which is used by the Ministry of Health (Healthy Brazil Program), in which nutritionists train other health professionals, but do not directly interact with users, do you believe that these actions may help change the epidemiological profile of diet diseases?

Annex 2 - Questionnaire to users

Number: 
Gender: 
Age: 
Main complaint: 

1. Where do you search for information concerning diet? 
   - Magazines and television ( )
   - Nutritionists ( )
   - Doctor ( )
   - Family and friends ( )

2. Do you believe that diet interferes with your life quality? 
   - Yes ( )
   - No ( )

3. How good is your knowledge about diet? 
   - None ( )
   - Reasonable ( )
   - Big ( )
   - Enough ( )

4. Which UBS professionals have given information concerning health? 
   - Social Assistant ( )
   - Dentist ( )
5. Do you believe that the information you received at the UBS was enough to deal with your disease?
   Yes ( )
   No ( )

6. What do you need to treat your disease?
   ( ) Only medication
   ( ) Medication and diet
   ( ) Only diet
   ( ) Only medication

7. Do you know any nutritionists?
   ( ) Yes
   ( ) No

8. In your point of view, the aspect most responsible for nutritional diet problems is:
   ( ) Economic
   ( ) Educational
   ( ) Both

Annex 3 - Free and clear consent term

Professional

The following information is supplied for your volunteer participation on a survey. Its main objective is to investigate your knowledge concerning nutrition and eating habits, and their application in daily professional routines. This survey aims at qualitatively evaluating the knowledge of health professional who work in the UBS located in Juiz de Fora – state of Minas Gerais and is entitled “Implementation of nutritional education in public health care: its impact on the promotion and recovery of the user health.”

This present study is being carried out by the investigator Wanessa Françoise da Silva Aquino, nutritionist, from the Universidade Federal de Viçosa-MG and a graduate student at the Curso de Especialização de Políticas e Pesquisa em Saúde Coletiva of the Juiz de Fora Federal University - MG.

The methodology to obtain the data consists of using forms whose answers will be indicators which will help the investigator fulfill the main objectives of this study.

Participants will be included according to the following criteria:
– being a health professional with a degree (nurses, social workers, doctors, among others);
– working in this UBS, either as an employee or as a hired professional, having a degree in the working area.

Exclusion of a participant from the survey will happen orally or in writing.

The investigator guarantees that there are no moral, physical, or financial risks for the survey’s participants and, therefore, there will be no indemnification for them.

The participant has the guarantee that, in any stage of the study, s/he will have access to the responsible investigator to answer any questions. The participant may find the investigator at her home address: Av. Barão do Rio Branco, 1903/1202, Juiz de Fora, or at the following phone number: (32)9925-8405.

Participants are free to withdraw their consent, with no harm or penalties for them, at any moment.

The information gathered from the questionnaires’ application will be analyzed as a group, and their identification will not be made public. There are no personal expenses allowed for the participants in any phase of this study. There is no financial compensation related to their participation x, either. The investigator is committed to using the gathered data only for this study. This document will be signed in duplicate, one copy of which will be given to the participant and the other one will be kept by the investigator.

In case it is necessary to obtain more information concerning the investigation, the participants may refer to the Comitê de Ética em Pesquisa of the Juiz de Fora Federal University, at the following address: Pró-Reitoria de Pesquisa-University Campus n/n, telephone number: 3229-3788, business hours.
Since I believe that I have been sufficiently informed concerning what I have read or concerning what I have been read about the study description, and that its purposes and reliability and clarification of the study are clear to me, I voluntarily agree to participating in this survey.

Annex 4 - Free and clear consent term

User

The study’s main objective is to investigate your knowledge concerning nutrition and eating habits, and their application to health professionals’ daily routines. This survey aims at qualitatively evaluating the knowledge of health professional who work in this UBS located in Juiz de Fora – state of Minas Gerais and is entitled “Implementation of nutritional education in public health care: its impact in the promotion and recovery of the users’ health.”

The present study is performed by the investigator Wanessa Françoise da Silva Aquino, nutritionist, from the Universidade Federal de Viçosa-MG and graduate student at the Curso de Especialização de Políticas e Pesquisa em Saúde Coletiva of the Juiz de Fora Federal University - MG.

The methodology to obtain the data consists of using forms whose answers will be indicators which will help the investigator fulfill the main objective of the study.

The people participating will be included according to the following criteria:
- user of the health service related to this UBS area.
- x over 18 years old.

Exclusion of a participant from the survey may be orally and in writing.

The investigator guarantees that there are no moral, physical, or financial risks for the survey’s participants and, therefore, there will be no indemnification for them.

I inform that you have access to any doubt clarification during any phase of this study. contact me at Av. Barão do Rio Branco, 1903/1202, Juiz de Fora, or through the phone number: (32)9925-8405.

The participant has the guarantee that, in any stage of the study, s/he will have access to the responsible investigator to solve any possible problems.

The information gathered from the questionnaires’ application will be analyzed as a group, and their identity will not be made public. There are no personal expenses for the participants in any phase of this study. There is no financial compensation related to their participations either. The investigator is committed to using the gathered data only for this study. This document will be signed in two copies, one of which will be handed in to the participant and the other will be kept by the investigator.

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