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COMMUNICATION TECHNOLOGIES OF A NUTRITION SERVICE CONTRIBUTING TO THE SAFETY OF BARIATRIC SURGERY PATIENTS

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ABSTRACT

Objective: to describe patients' perceptions of communication technologies used in a nutrition service and to learn how they may contribute to the safety of postoperative bariatric surgery patients.

Method: a descriptive and exploratory study with a qualitative approach was carried out with 12 postoperative bariatric surgery patients admitted into a teaching hospital in southern Brazil from March to July 2016, by means of a focus group (five meetings). Data analysis included text transcription and data were grouped by similarity and once more nominated as great units.

Result: the following categories emerged from the analysis process: communication with nutritionists and patient safety; changes in eating habits and challenges; and weight loss and maintenance. The data showed that group appointments strengthen the relationship with nutritionists. Using several communication technologies promotes a sense of safety, because it facilitates access. Care guidelines reduce concerns associated with nutritional deficiencies and weight regain.

Conclusion: the strengthening of the relationship with nutritionists associated with a wide range of communication technologies provide patient safety toward losing follow-up and having problems regarding nutritional deficiencies and weight regain.

DESCRIPTORS: Bariatric surgery. Nutrition. Biomedical technology. Patient safety. Obesity. Food and nutrition education.

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TECNOLOGIAS DE COMUNICAÇÃO DE UM SERVIÇO DE NUTRIÇÃO CONTRIBUINDO PARA SEGURANÇA DO PACIENTE DE CIRURGIA BARIÁTRICA

RESUMO

Objetivo: descrever as percepções do paciente sobre as tecnologias de comunicação utilizadas no Serviço de Nutrição e conhecer como estas podem contribuir para sua segurança no pós-operatório de cirurgia bariátrica.

Método: estudo descritivo e exploratório com abordagem qualitativa, realizado com 12 pacientes no pós-operatório de cirurgia bariátrica, atendidos em um Hospital Universitário no sul do Brasil entre março a julho de 2016, mediante grupos focais (cinco encontros). Para análise de dados utilizou-se Flick.

Resultado: do processo de análise emergiram as categorias: Comunicação com a nutricionista e segurança do paciente; Mudanças de hábitos alimentares e desafios; Perda e manutenção de peso. Os dados apontam que o atendimento por meio de grupos fortalece o vínculo com o nutricionista. O uso de várias tecnologias de comunicação propicia o sentimento de segurança, pois facilita o acesso. As orientações de cuidados diminuem a preocupação relacionada às deficiências nutricionais e reganho de peso.

Conclusão: o fortalecimento do vínculo com o nutricionista associado às opções variadas de tecnologias de comunicação propicia aos pacientes segurança em relação à preocupação em perder o acompanhamento e ter problemas no que tange a deficiências nutricionais e reganho de peso.

DESCRITORES: Cirurgia bariátrica. Nutrição. Tecnologias em saúde. Segurança do paciente. Obesidade. Educação alimentar e nutricional.

TECNOLOGÍAS DE COMUNICACIÓN EN SERVICIO DE NUTRICIÓN CONTRIBUYENDO A SEGURIDAD DEL PACIENTE DE CIRUGÍA BARIÁTRICA

RESUMEN

Objetivo: describir las percepciones del paciente respecto de las tecnologías de comunicación utilizadas en el Servicio de Nutrición y entender cómo pueden éstas contribuir a su seguridad en el posoperatorio de cirugía bariátrica.

Método: Estudio descriptivo, exploratorio, de abordaje cualitativo, realizado con 12 pacientes en posoperatorio de cirugía bariátrica, atendidos en hospital universitario del sur de Brasil, de marzo a julio de 2016, utilizando grupos focales (cinco encuentros). Se utilizó Flick para el análisis de datos.

Resultado: del proceso analítico surgieron las categorías: Comunicación con el nutricionista y seguridad del paciente; Cambio de hábitos alimentarios y desafíos; Pérdida y mantenimiento del peso. Los datos reseñan que la atención por grupos focales fortalece el vínculo con el nutricionista. La utilización de varias tecnologías de comunicación brinda una sensación de seguridad, al facilitar el acceso. Las indicaciones de cuidados disminuyen la preocupación relacionada con las deficiencias nutricionales y con volver a ganar peso.

Conclusión: el fortalecimiento del vínculo con el nutricionista, asociado a las variadas opciones de tecnologías de comunicación, brinda seguridad al paciente respecto de la preocupación de perder seguimiento y tener problemas con las deficiencias nutricionales y con recuperar peso.

DESCRIPTORES: Cirugía bariátrica. Nutrición. Tecnologías en salud. Seguridad del paciente. Obesidad. Educación alimentaria y nutricional.

INTRODUCTION

Obesity is known worldwide as one of the most important public health issues. Statistics show that there are approximately 475 million obese adults, 1.5 million overweight adults, and more than 200 million overweight schoolchildren.¹

In Brazil, data from the Protective and Risk Factors for Chronic Diseases by Telephone Survey (VIGITEL, as per its acronym in Portuguese), carried out by the Ministry of Health showed an increase in the number of overweight people from 43% in 2006 to 52.5% in 2014, and in the percentage of obese people from 11% for 17.9%.²

Obesity has two types of treatment: conservative and surgical. Conservative treatments consider dietary guidelines, physical activities, cognitive-behavioral therapies, and use of medications.³ However, when these conservative treatment strategies are not successful, that is, when no weight loss and maintenance are achieved, surgical treatments are presented as choices. Surgical treatment or bariatric surgery has been considered a consistent therapeutic resource for long-term weight loss and improvement or remission of comorbidities associated with obesity.⁴

In the global scenario, Brazil is the second country in the world in number of bariatric surgeries performed, with more than 80 thousand records per year, only surpassed by the United States.⁵

Therefore, because this is a high-frequency procedure in Brazil, health teams must provide the best possible support, with continuous multidisciplinary follow-up for bariatric surgery patients. The lack of appropriate follow-up of these major surgeries may cause underweight and nutritional risks, thus compromising surgery success and patient safety.⁶

The process of changing eating habits may be complex, involving physical, psychological, and social aspects, depending on each individual. The need for changes in habits regarding eating and physical activities may be considered as one of the major challenges of postoperative bariatric surgery.³

In this complex context of changes, communication strategies, establishment of relationships, sharing of responsibilities between professionals and patients, and meeting of demands may be a differential to overcome daily challenges of patients and professionals who work together.⁷

The role of a nutritionist, as one of the healthcare team professionals who provide care to patients, is, in addition to several other daily challenges, to provide nutritional guidance, which must be appropriately understood by patients. Therefore, communication may be considered a technology regarding healthcare advances.

In this respect, the following communication tools, in addition to individual consultations, may be adopted to assist the constant dialogue between professionals and patients: group consultations, contact by email, phone calls, and instant messages. These technologies became possible due to the increasing use of the Internet and smartphones, which complement health care and promote self-care. Consequently, a great number of patients may be reached with a relatively low cost, contributing to consultation attendance, adherence to follow-up, and clarification of doubts, thus bringing patient safety regarding nutrition.⁸

The results from one study carried out in hospitals in the state of Michigan that evaluated safety culture and surgical complication rates showed that safety perception varies significantly according to each professional involved in the process and is not only about the surgical procedure, but also the quality of services provided, information availability, care, and communication with the health team.⁹

Communication technologies may contribute significantly to this safety process and, consequently, when understanding the meaning of communication technologies and the personal reality of patients, it is possible to plan nutritionists' performance, seeking for more empathy and better relationship between professionals and patients.

To ensure greater patient safety in bariatric surgery, the surgical procedure must be transcended. After surgery, a significant and continuous nutritional monitoring process initiates, which involves consultations, informal talks, relationship with the team, and motivation, aiming at care and safety quality. Clear and coherent information is of utmost importance for the adoption of measures that increase or maintain patient safety, especially regarding the evaluation of benefits, costs, and impact of new health technologies.

Health technologies are distinct and complementary, being hard technologies associated with the request of examinations and procedures and soft-hard technologies with professionals' scientific-technical knowledge to meet patients' needs. However, patients may sometimes need more than the simple resolution of their grievance when seeking healthcare services, and, in order to feel satisfied, they may seek qualified listening and care.¹⁰ Therefore, satisfied patients contribute to improving the results of healthcare-related actions, such as adherence to preventive measures and clinical treatment.¹¹

Eye contact, active listening, professionals' concern regarding patients' understanding, leadership skills, involvement of all team members, healthful discussions on relevant information, and situational awareness are key factors for the development of effective communication.¹²

Therefore, the aim of the present study was to describe patients' perceptions of communication technologies used in a nutrition service and understand how they may contribute to the safety of postoperative bariatric surgery patients.

METHOD

This was a descriptive and exploratory study with a qualitative approach carried out in a teaching hospital in southern Brazil.

The study sample was made up of 12 patients from both genders, aged 18 years or more, who undertook bariatric surgery in the abovementioned institution and were members of the Interdisciplinary Stomach Reduction Patient Follow-up Group (GIAPRE, as per its acronym in Portuguese) for three months up to eight years.^{<0>} The GIAPRE is a support group that provided face-to-face group consultations to the population in the present study. Monthly group meetings were carried out and patients were invited to participate at the time of hospital discharge. The exclusion criterion was patients who did not undertake postoperative nutritional follow-up.

Data were collected using the focus group (FG) technique by means of reports of postoperative bariatric surgery patients, which showed the contribution of the communication technologies provided in the nutrition service. FG is indicated for meetings with groups that assist in the integration among individuals, including the mutual support of the participants through communication with each other and exchange of experience, ideas, opinions, and criticisms.¹³

The FG technique was carried out with the presence of the main researcher and an observer of the social service who was undertaking a similar study with postoperative bariatric surgery patients, which facilitated the discussion.

Since the meetings of the GIAPRE were carried out once a month, a different topic was approached in the focus group in each month of 2016. The following themes approached in the group were discussed in the present study: 24-hour eating reminder, in March; communication with nutritionists during the postoperative period, in April; use of the Internet by postoperative bariatric surgery patients, in May; eating quality in postoperative bariatric surgery, in June; and weight loss maintenance in late postoperative bariatric surgery, in July. The meetings were recorded and transcribed on the same day to more accurately evoke all relevant moments, the most controversial situations, and feelings on reports. In spite of the pre-established themes, discussions were dynamic and flexible.

Data collection occurred from March to July 2016, totaling five meetings with an approximate duration of one hour and thirty minutes each. It is worth mentioning that a pilot group was carried out in February 2016.

Data analysis included text transcription and data were grouped by similarity and once more nominated as great units. Then, each one of them was allocated to a tripod of results - thematic categories, as follows: communication with nutritionists and patient safety; changes in eating habits and challenges; and weight loss and maintenance¹⁴.

An informed consent form was applied and the participants' anonymity was ensured by means of coding, from P1 to P22.

RESULTS

Communication with nutritionists and patient safety

The participants in the study reported that they felt safe and encouraged to maintain nutritional guidance with the range of nutritional communication technologies currently present in the abovementioned institution. In spite of valuing individual consultations, they did not have specific doubts at the time of the group meetings or consultations scheduled, and the possibility of access to online technologies, such as emails, virtual groups in social networks or groups through smartphone applications, or software for smartphones used for exchange of text messages would promptly facilitate communication between nutritionists and patients.

Communication with nutritionists seems to bring safety for most participants in this study, because they felt cared. They reported knowing other patients who undertook surgery in other places that did not provide this range of services regarding nutrition, or a type of alternative contact with the nutritionist in charge of their bariatric surgery. They also reported that anxiety, doubts, and even nutrition errors may be minimized through virtual access to nutritionists, thus promptly resolving their needs. This may be understood in the following report: *I was really happy the day I left my appointment and the nutritionist said I could eat solid food! I knew I could eat everything she listed without fear, and I could ask her when I had doubts... and I asked a lot* (P4).

Mutual cooperation among participants was observed, which is also seen in posts of the virtual group in social network and smartphone. In addition to the nutritionist, patients help each other based on their understanding of nutritional care, also encouraging other unmotivated members, as shown in the following speech: *This soup lacks vegetables! Next time, put more color in it to be nutritious* (P21); *Do not give up! Tomorrow is another day! Focus! Look at everything we have been through... nobody is going to discourage us* (P16); *Come to my house and I will take you to my fitness center! I think we live close. Let's have some coffee* (P3).

Regarding the use of the Internet, most participants made use of this tool, which is justified by its popularization in the last few years. The search in websites is made with awareness, since patients were already warned about precautions that must be taken in the search for information. One of the participants used this technology only to learn new recipes to vary the food prescribed by nutritionists. Regarding the contact with nutritionists of the institution through email, patients often made use of this tool to communicate, as observed in the following speech: *I do not believe in everything people say... I ask my nutritionist when I have doubts! I wait for her opinion through email... Another excellent nutritionist, who she knows, helps me at the healthcare service* (P14).

One participant reported making use of websites and Internet chatrooms before undergoing surgery, which made no sense after learning about the possibility of communication with nutritionists to clear up doubts after the postoperative surgery, as shown in the following speech: *At the beginning,*

I was addicted to searching information, recipes, talking to other bariatric patients in chats; however, it became repetitive. I already knew a lot... I am always talking to my nutritionist and will not take risks (P4).

Change in eating habits and challenges

The great number of daily social events and the fact that these lead to an increase in food consumption cause general discomfort and insecurity to the participants in the present study. Doubts regarding different issues emerge, such as amount of food ingested and food intolerance. Therefore, resorting to communication technologies with nutritionists in these specific situations makes patients feel safer regarding their doubts.

Two participants reported that when consuming nondigested foods, they recall what the nutritionist said during consultations: *She told me that when I undertook surgery, my stomach was like a baby's stomach. It is not because some food was not appropriately digested that it cannot be tried again when prepared in a different way (P9). I recall the nutritionist comforting me, explaining that balance is everything and radicalism may be harmful in the long term. The nutritionist told me that whenever eating something sweet, I should eat a little amount and never with an empty stomach, in order to prevent an increase in glucose (P15).*

Another participant recalls the guidance on buying a small amount of chocolate, only to be satisfied at that moment, and avoid continuing consumption. This is shown in the following speech: *She always tells me to not buy much, not buy big chocolate bars, and always have them for dessert... it works! There is no more chocolate, you know? We are not tempted to eat more later (P8).*

One of the participants suggested other colleagues consume flavored water with cinnamon to reduce sweet craving. This suggestion was sent by email, and was accepted since then, although not recalling the reason why. Another participant of the group mentions that we must be careful to not consume sweet all the time, as shown in the following speech: *It may bring back old addictions, such as soft drinks we used to have before surgery (P3).* In addition, this participant explains that when he is craving for sweets, he follows the recipe taught during a meeting of the GIAPRE, made in the kitchen of the University in 2014 (P3).

Weight loss and maintenance

The present study showed that to establish good communication and recognize the characteristics of each user, the first step is to provide an appropriate welcome. When arriving at the GIAPRE, even if most members know each other, an introduction dynamics is applied and every new member is welcomed. Due to the presence of long-standing participants, the group is naturally friendly and becomes encouraged with the inclusion of new patients.

A seven-year postoperative participant attributed the participation in the smartphone application group and email to the changes that led her to correct the weight regain of 12 kilograms acquired after two years of surgery, since she already participated in all consultations and almost every meeting of the GIAPRE in this period. She mentioned that this new technology opened doors for her to try several types of food, because she saw that other colleagues also consumed them and posted quite attractive photos. She stopped mixing carbohydrates and, in addition, began paying attention to her water intake, which used to harm her before, following the tip about mixing water with spices such as cinnamon, ginger, and pieces of fruits, as suggested by email. This is shown in the following speech: *I was afraid of being sick, but since the members of the group followed the suggestions and sent pictures, I thought I could try, since they were like me (P1).*

In spite of all participants sharing the same surgical experience, heterogeneity in education level, eating habits, age, and surgical time is found; however, the collective spirit that pervades the group enables an understandable language for all, thus facilitating interaction among members.

Most participants in the study regained weight (59%), and did not achieve the weight loss of 40% of the initial weight (68.18%). The habit of eating all the time is the most common explanation and is still present at specific times associated with boredom and anxiety. One participant was told in a consultation that individuals who have this habit may intake more than up to 1,000 calories during a day, without noticing it. Since then, she tries to have her meal at the right time to prevent this situation, as shown in the following speech: *Before, I did not eat much food, but I used to eat little snacks all the time, such as candies, biscuits... I was always chewing something. I did not realize I was eating... and did not have a proper meal. Nowadays, I have my schedule, stop everything to have my meal, and do not eat little snacks all the time* (P7).

DISCUSSION

As observed in the results, the participants in the study indicate that, in spite of undergoing experiences that arise doubts during the entire postoperative process, receiving important information from a nutritionist through face-to-face or group consultations, email, phone calls, or social networks, and maintaining this contact after the surgical procedure, make them more comfortable and safer.

The recommendation for virtual consultations in order to complement individual consultations evidenced in the guidelines for the care of individuals with chronic diseases in healthcare networks and lines of primary health care meets the present study and highlights the follow-up of users with more complex situations, who need a more intensive approach. This type of patient may be assisted by means of other forms of contact such as phone calls and email, reducing the number of individual consultations and assisting in the management of consultations for other types of patients.¹⁵

In one qualitative study carried out by means of an educational group for hypertensive and diabetic patients of the Brazilian Family Health Strategy, which sought to learn, in the perspective of the professionals who coordinated groups, the technologies used for group management, the results indicated that professionals must be trained to coordinate groups and creatively enable learning, and use it as a technology that provides care/self-care learning.¹⁶

Another study carried out in Passo Fundo, a city in the state of Rio Grande do Sul (Brazil), with four Family Health Strategy teams that monitored 123 older adults and sought to identify the proportion of risk factors for obesity, indicated the need for the adoption of communication strategies to establish comprehensive care with better use of interventions for promotion, prevention, and dietary and drug treatment provided by teams.¹⁷

When analyzing the perception of what is understood by hospitality and how this is practiced in hospital health service, communication in the postoperative period was approached with bariatric patients. As a result, patients suggested receiving guidance on the surgical process in written and not only orally, thus preventing forgetfulness or confusion of relevant information. In addition, for them, the excess of information from different specialties at the time of hospital discharge may hinder the clarification of doubts or cause misunderstanding. Therefore, patients suggested that communication be established during the entire process so they have enough time to read and reread information, and that professionals be somehow available to provide them with support regarding their anxieties and doubts. In the present study, nutritionists were highlighted in information provision, which emphasizes that communication must be effectively established. In this respect, the different types of access to information and communication with nutritionists may fill these gaps, thus facilitating the understanding of guidelines by patients.¹⁸

In the context studied, the participants emphasized the importance of welcome and the communication process, highlighting the need for these to happen simultaneously and be developed by a multidisciplinary team. The communication process includes the need for written and oral instructions, which must be continuous and not only at the time of hospital discharge, generating confusion and excess of information. The different types of access to information and communication with nutritionists may fill these gaps, thus facilitating the understanding of guidelines by patients.¹⁸

Most participants in the present study reported having access to the Internet and confirmed that this communication tool was often used. The influence of the Internet on the doctor-patient relationship in primary care was evidenced in a study developed in the city of São Paulo, where most of the patients interviewed (87%) had private computers with access to the Internet and used it as information source on health and, curiously, few of them brought information to consultations. Many participants in the study mentioned that they wished professionals could indicate trustworthy sites; however, 71.9% reported never receiving indication by professionals, and 78.9% never contacted professionals through this mean.¹⁹

The use of the Internet by postoperative bariatric surgery patients is recurrent. The daily access in search for health and bariatric surgery information on the Internet is observed in 51% of the participants, showing that the results found in the present study evidenced that this information influenced the continuing of multidisciplinary follow-up.²⁰ These type of data shows that this means of communication is an advantageous information vehicle that should be shared by professionals and patients, because it enables the exchange of experience and doubts, making both parts satisfied. This management is carried out in the GIAPRE, regardless of the pre-established theme proposed; in the answer given by nutritionists through email when patients have doubts, in the exchange of information in the social network group, phone calls, or smartphone applications. In addition, information exchange, motivation, and encouragement provided by groups as a new support network, may positively influence the confidence of these patients regarding postoperative nutrition care.

Emphasizing the importance of nutritional follow-up and all consultation possibilities, a comparative study was conducted on the occurrence of anemia between bariatric patients of the community of Paranavaí, a city in the state of Paraná (Brazil), and bariatric patients members of an association of obese patients operated in Paranavaí and region (AAOB, as per its acronym in Portuguese) from one to six years of postoperative period. The results showed that 32% of the members of the association presented anemia against 50% of the bariatric patients of the community. Most causes were red meat intolerance and inappropriate use of multivitamin and mineral supplements. According to the authors, this difference is due to the preventive actions of the AAOB in the form of lectures, medical, psychological, and nutritional follow-up approaching themes demanded by patients,²¹ as happens in the group of the present study.

CONCLUSION

The present study evidenced that the perception of postoperative bariatric surgery patients participants of a support group in a hospital in southern Brazil on communication technologies used in the nutrition service of the above mentioned setting, approached the following thematic categories: communication with nutritionists and patient safety; changes in eating habits and challenges; and weight loss and maintenance of it.

It is worth mentioning that in this study, according to the participants, a range of communication means used in the study setting as strategies that contribute to patient safety are highlighted, such as email, virtual group in social networks or groups through smartphone applications, and software for smartphones used for prompt exchange of text messages. They highlighted that these strategies facilitate communication between nutritionists and patients, allowing the relationship with nutritionists

and service, and, especially provide safety regarding the fear of the nutritional deficiencies and weight regain.

The importance of clear and coherent information is of utmost importance, so healthcare professionals, especially nutritionists, have an attitude that increases or maintains safety regarding the evaluation of benefits, costs, and impact of new technologies on health.

Concern with patient safety is increasingly noticed among nutrition professionals. Therefore, the use of technologies directed to patient safety in nutrition practice may transform the access to technical-scientific information and increase population knowledge, since more autonomous and active patients emerge, who become exposed or constantly seek information on health and diseases, many times thinking that they know everything, especially if not appropriately guided.

The technologies used must be institutionalized, because these may bring even more benefits for services, contributing to their excellence in the care for these patients, who are the most important part of the process and are continuously changing their eating habits, and need support and lifelong nutritional monitoring.

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NOTES

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ETHICS COMMITTEE IN RESEARCH

Approved by the research ethics committee of the *Universidade Federal de Santa Catarina* under protocol number: 1.430.047 and Certificate of presentation for ethical consideration n° 52223615.7.0000.0121.

CONFLICTS OF INTEREST

There is no conflict of interest.

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