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NURSING PROTOCOL FOR REMOTE MONITORING OF WOMEN WITH EXCESSIVE WEIGHT

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ABSTRACT

Objective: to describe the construction and implementation of the nursing protocol for remote monitoring of overweight women.

Method: report of experience with 50 women who participated in an intervention study developed in a reference outpatient clinic for obesity in Salvador, Brazil. The steps involved in the development of the protocol consisted of structuring the theoretical content and defining the form of operationalization.

Results: the definition of the theoretical content of the protocol was guided by the main guides and guidelines of the Ministry of Health and Scientific Societies and discussion with specialists. A thematic weekly script was developed for phone calls, including content on obesity, its causes and complications, feeding and practicing physical activity for weight control. The protocol was performed in ten weeks, with scheduled weekly connections and duration of five minutes. To guide the team in the operation of telephone calls, a Telephone Call Guide was developed. The information was offered in a flexible way, providing moments for the participant to clarify doubts and to add information, being observed the understanding of the contents. Women noted that monitoring, as well as guiding how they could take better care of themselves, helped to avoid giving up treatment and solving problems with health consultations and procedures.

Conclusion: the use of remote nursing monitoring focused on educational actions, has proved to be a tool to support the care of overweight women.

DESCRIPTORS: Obesity. Telenursing. Protocols. Monitoring. Health education. Women. Telephone.

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PROTOCOLO DE ENFERMAGEM PARA MONITORAMENTO REMOTO DE MULHERES COM EXCESSO DE PESO

RESUMO

Objetivo: descrever a construção e implementação do protocolo de enfermagem para monitoramento remoto de mulheres com excesso de peso.

Método: relato de experiência com 50 mulheres que participaram de um estudo de intervenção desenvolvido em ambulatório de referência para obesidade, em Salvador, Brasil. As etapas envolvidas no desenvolvimento do protocolo consistiram na estruturação do conteúdo teórico e definição da forma de operacionalização.

Resultados: a definição do conteúdo teórico do protocolo foi norteada pelos principais guias e diretrizes do Ministério da Saúde e das Sociedades Científicas e discussão com especialistas. Elaborou-se um roteiro semanal temático para as ligações telefônicas, incluindo conteúdos sobre a obesidade, suas causas e complicações, alimentação e prática de atividade física para o controle do peso. O protocolo foi executado em dez semanas, com ligações semanais agendadas e duração de cinco minutos. Para orientar a equipe na operacionalização dos telefonemas, elaborou-se um Guia para Chamada Telefônica. As informações foram oferecidas de forma flexível, proporcionando momentos para a participante esclarecer dúvidas e adicionar informações, sendo observada a compreensão dos conteúdos. As mulheres assinalaram que o monitoramento, além de orientar como poderiam se cuidar melhor, ajudou a não abandonar o tratamento e resolver problemas sobre consultas e procedimentos de saúde.

Conclusão: o uso do monitoramento remoto de enfermagem, focado em ações educativas, mostrou-se uma ferramenta de apoio ao cuidado de mulheres com excesso de peso.

DESCRIPTORIOS: Obesidade. Telenfermagem. Protocolos. Monitoramento. Educação em saúde. Mulheres. Telefone.

PROTOCOLO DE ENFERMERÍA PARA ACOMPAÑAMIENTO A DISTANCIA DE MUJERES CON SOBREPESO

RESUMEN

Objetivo: describir la construcción e implementación del protocolo de enfermería para el acompañamiento a distancia de mujeres con sobrepeso.

Método: relato de experiencia con 50 mujeres que participaron de un estudio de intervención, desarrollado en un centro de salud de referencia para la obesidad, en Salvador, Brazil. Para llevar a cabo el desarrollo del protocolo se realizaron las siguientes etapas: estructuración del contenido teórico y definición de la forma de operación.

Resultados: la definición del contenido teórico del protocolo ha sido orientada por las principales guías y normas del Ministerio de Salud y de las Sociedades Científicas, además de debates con especialistas. Se elaboró una guía semanal temática para las llamadas telefónicas, que incluían contenidos sobre la obesidad, sus causas y complicaciones; la alimentación y la práctica de actividad física para el control del peso. Se implementó el protocolo por diez semanas, con llamadas semanales programadas y una duración de cinco minutos. Para orientar al equipo en la ejecución de las llamadas, se elaboró una 'Guía para la llamada telefónica'. Los participantes se mostraron flexibles al conceder informaciones, y se produjo momentos para que estos sacaran sus dudas y agregaran más informaciones, siendo observada la comprensión de los contenidos. Las mujeres indicaron que el acompañamiento, además de orientarlas en cómo podrían cuidarse mejor, las ayudó a no abandonar el tratamiento y a resolver problemas sobre consultas y procedimientos de salud.

Conclusión: el uso del acompañamiento a distancia de enfermería, enfocado en acciones educativas, demostró ser una herramienta de apoyo para el cuidado de mujeres con sobrepeso.

DESCRIPTORIOS: Obesidad. Teleenfermería. Protocolos. Monitoreo. Educación en salud. Mujeres. Teléfono.

INTRODUCTION

Obesity is a major cause of morbidity in several countries and is associated with an increased risk of cardiovascular, metabolic, musculoskeletal and cancer diseases.¹ It represents important health costs and, in particular, worsens the quality of life due to its serious physical and psychosocial implications.²⁻³

In general, obesity develops without an underlying primary disease, the main cause being the imbalance between caloric intake and energy expenditure.⁴ The determining factors vary from person to person and relate to the ways of living and the actual conditions of life and health of societies, classes, groups and individuals.³ Although it represents a chronic health condition of complex and multifactorial etiology, it is amenable to intervention. Their control depends on changes in lifestyle, mainly related to eating habits and to physical activity,³ which require the active and conscious participation of individuals.

The number of people who are unsuccessful in weight loss and maintenance is large,⁵ and long-term care success depends on motivation, persistence, discipline, determination, constant vigilance and support in the adequacy of control measures.⁶ For these reasons, new and different health care strategies are essential to increase the chances of success. The difficulty of significant losses and the maintenance of reduced weight have influenced the permanence of individuals in treatment programs.⁷

Continuous educational actions have produced positive results in weight reduction, although the permanence of some is not guaranteed for long. These actions are essential in the context of chronic diseases, to guide people about the control measures and help them in the care to face and overcome problems arising from the process of illness. Education plays an important role in the process of change in the way of life, contributing with knowledge that helps in the expansion of the choices of measures for control of the weight and valorization of the preservation of the own life.⁸ Learning is an activity that happens when the education process takes place in an appropriate, participative and continuous way. In this way, educational actions must be planned and directed to the target population in order to meet their needs and individuality and must be based on methodologies that preserve the autonomy of the subjects and value the preexisting knowledge.⁹

The use of telemonitoring in the follow-up of chronic health problems, supported by protocols that guide the behavior of health professionals in different contexts,¹⁰⁻¹¹ has assisted in self-care and adherence to treatment.¹² However, little is known about its use to assist women in weight management. Intervention studies with telephone calls for people with myocardial infarction were effective for the majority of the evaluated results regarding improvement in health, quality of life, lipid profile, anxiety disorders, self-care and adherence to medication.¹³ Integrative review also pointed out that interventions using telephone calls were effective in glycemic control of people with type 2 diabetes.¹⁴ Thus, it is important to evaluate the use of remote monitoring as a support in the follow-up of overweight women to confront difficulties in weight loss and control and problems arising from obesity.

In the telenursing, defined as the nurse-professional interaction of health or nurse-patient through devices that overcome the barriers of distance and time, the use of the telephone stands out. This technology is a modality of attention and education in distance health in expansion in the care to the people with chronic diseases, potentializing the capacity of interaction between the subjects involved, in a fast and accessible form.¹⁵

Telenursing in caring for overweight people may prove to be a useful tool in monitoring and supporting weight management. Therefore, proposals need to be built and validated, aiming to subsidize interventions in the field of nursing and health. Based on the above, the objective was to describe the construction and implementation of the nursing protocol for remote nursing monitoring

(RNM) of overweight women. The reported experience may guide the use of this important tool by workers in the field of nursing care.

METHOD

This is an experience report about the construction and implementation of the nursing protocol for RNM of overweight women. Fifty women who constituted the intervention group of the research project entitled "Remote monitoring of nursing of overweight women" participated in the RNM, developed at an outpatient referral center for obesity treatment in Salvador, Bahia, Brazil; where a multiprofessional team serves users of the Unified Health System.

These women met the inclusion criteria of the matrix project, namely: body mass index $\geq 25 \text{ kg/m}^2$, age greater than 18 and less than 60 years, and frequency of at least one consultation at the study site in the last 12 months. Women with cognitive difficulties and severe psychiatric disorders were excluded, on weight-loss drugs, undergoing bariatric surgery, and who did not have telephone equipment. The choice of women was since they represented 91% of the people enrolled in the service.

All were clarified about the RNM proposal when they were approached to participate in the collection of the initial data of the matrix project and agreed to receive the telephone calls at the previously scheduled time, as well as signed the Informed Consent Term. The matrix research project was approved by the Research Ethics Committee with human beings.

The two steps involved in the development of the RNM protocol were:

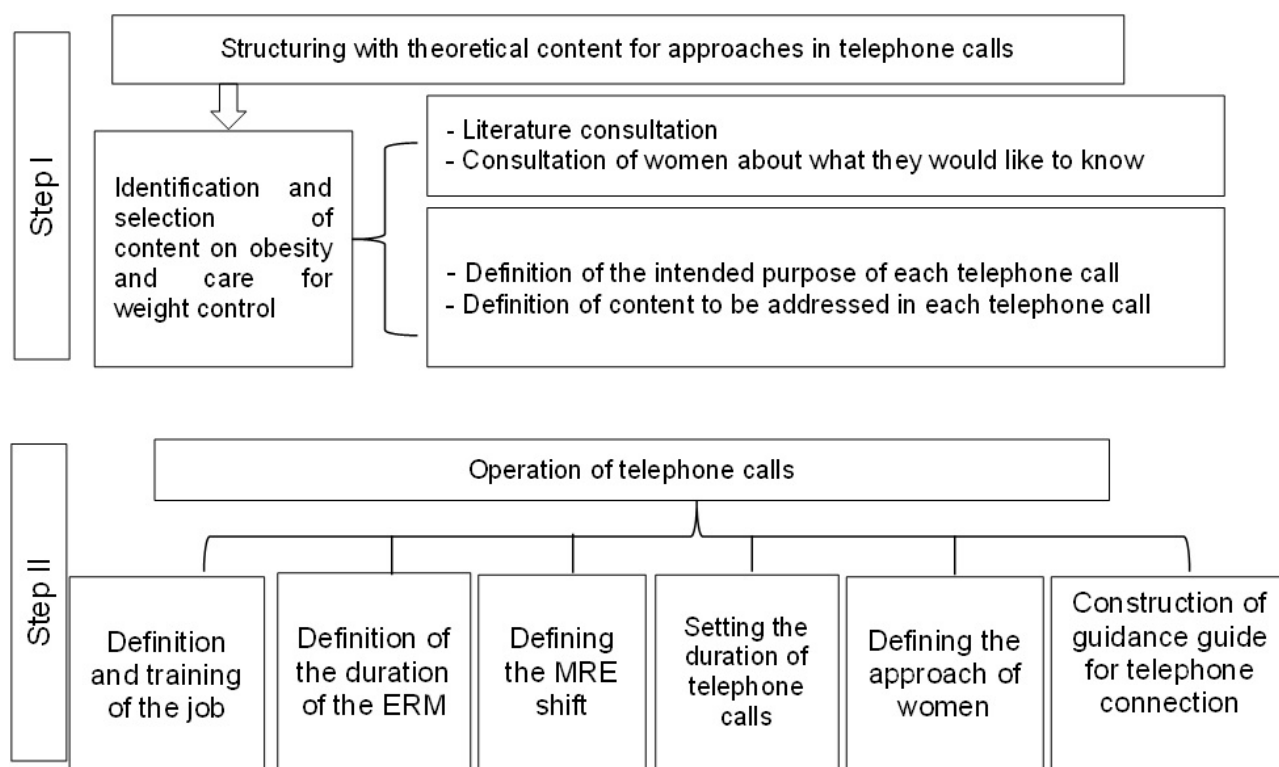


Figure 1 - Stages of the development of the protocol of remote nursing monitoring (RNM)

RESULTS

Structuring the theoretical content of the remote monitoring protocol

In this first stage, based on the readings and discussions of the materials used as a reference, theoretical content on overweight was chosen and the thematic orientation guide was formulated weekly.

Choice of theoretical content on overweight

The contents were selected to guide self-care decisions aimed at health promotion and metabolic and weight control. Even considering that women had knowledge about the subject and the importance of valuing and knowing the existing and desired knowledge to guide health education actions, it was felt that a group of orientations should be ensured and shared each week, helping to reinforce correct content and review misinformation. At this stage, the main guides and guidelines of the Ministry of Health and Scientific Societies were read, as well as discussion with specialists. The authors' experience in approaching overweight individuals was also considered.

Weekly Guidance Thematic Roadmap

Defining the content on obesity and the control measures to be approached with the women began to structure the Thematic Roadmap Weekly (Table 1), as a guide for telephone calls, defining the purpose of the link associated with the content addressed. Throughout the process, there was concern with the language to be used in the elaboration of the script, so that the information was easy to understand, objective and attractive.

Table 1 - Weekly Guidance Thematic Roadmap. Salvador, BA, Brazil, 2017

Week	Objective	Content and approach sequence
1	Clarify the proposal of remote monitoring Addressing the concept and causes of obesity	1. Being overweight or obese is a disease because it causes various health and life problems; 2. why do people get fat? They get fat because they eat a lot and spend little energy. When a person consumes more food than he spends energy, he or she accumulates weight. Some people accumulate fats more easily or have more difficulty burning them; 3. The ability to accumulate fat varies from person to person, depending on genetics; 4. To burn fat you need to be more active, not spending much time sitting and practicing physical activity regularly; 5. To avoid fat one must also choose foods well; 6. We conclude by saying that obesity is a disease that occurs when food is inadequate, and the person is not very active. Some eating behaviors impair weight loss, such as: 1. not having fixed hours to eat, that is, "pinching" always. In this case, the person loses control of the amount that he / she eats and ends up eating a lot, without even realizing it;
2	Guide on healthy eating for health and weight control	2. stay long periods fasting. Hunger and appetite increase, and one ends up eating more at the next meal. You should not eat only when you feel hungry; 3. doing few meals during the day and in large volumes is also harmful. The volume of the stomach may increase. So, the person indicated is to do three main meals a day and three more snacks in the intervals, choosing the foods well; 4. do not do "fad diets" because the person gains all the weight afterwards. Examples: soup diet, tea diet.
3	Guidance on the complications of being overweight	1. Obesity is considered a disease, because it causes problems such as diabetes, high blood pressure, bone problems, musculature, osteoarthritis, back pain and sleep impairment; 2. excess weight should be controlled to avoid serious health and life consequences.

Table 1 - Cont.

Week	Objective	Content and approach sequence
4	Guiding the importance of physical activity and how to do it	<ol style="list-style-type: none"> 1. Doing physical activity is important because it helps in weight loss, sugar control, cholesterol and blood pressure and improves your health and emotional state; 2. how to perform physical activity: at least three sessions of 50 minutes each or five weekly sessions of 30 minutes each. The ideal is every day, preferably in the early morning or late afternoon; wear light and comfortable clothing; perform in flat environments such as squares, sidewalks, parks; have a light meal before beginning; in the beginning one must do more slowly, in order to have an adaptation of the organism, and then one must gradually increase the time and the intensity; 3. avoid doing physical activity if the sugar or pressure is too high; 4. to become more active in the day to day it is good to walk and climb stairs instead of using car or bus and elevator or escalator; 5. Avoid or stop physical activity when feeling unwell.
5	Guidance on how to prepare food	<ol style="list-style-type: none"> 1. Always choose cooked, baked or grilled foods; 2. avoid the form of frying in the preparation; 3. stuff the meat or chicken with seasoning, without using oil; 4. give preference to lean and white meats, such as skinless chicken and fish; 5. use natural seasonings; 6. avoid spices ready or industrialized, as they are rich in salt and fat; 7. avoid salted meats in the preparation of beans, can use fresh muscle; 8. avoid sauces ready for pasta because they are high in salt and fat.
6	Guidance on hydration and water consumption	<ol style="list-style-type: none"> 1. Water is an indispensable element for our food. It helps eliminate harmful (toxic) substances in the body through elimination through urine and perspiration, and distributes nutrients through various organs; 2. drink 6 to 8 glasses of water daily, preferably between and not during meals; 3. when you feel thirst always prefer water, rather than juice or soda; 4. if you are the type who forgets to drink water, always keep a container with water nearby or use alarm to remember.
7	Guidance on the consumption of fruits and their properties	<ol style="list-style-type: none"> 1. Fresh fruits are full of vitamins, minerals and fiber; in general have a high-water content, stimulate the functioning of the intestine, feed and deceive hunger, so it is ideal for snacks and dessert; 2. the ideal is to eat three to four servings of fruit a day; 3. vary the types of fruits consumed during the day, preferring the fruits of the season, because they are cheaper; 4. one can eat any fruit, provided that in moderate amounts. Example: avocado, grape, banana, mango; 5. do not eat only fruits during the day, as they do not replace a balanced diet; 6. always make sure to eat the fruit rather than the juice.
8	Guide the consumption of vegetables and vegetables	<ol style="list-style-type: none"> 1. Vegetables provide several health benefits, help control weight and reduce heart disease; 2. eat more vegetables and vegetables, especially raw, because some vegetables, when cooked, lose some of their properties; 3. vegetables that are good raw: tomato, leaves, cabbage, carrot, beet; 4. in the same meal, one must consume cooked and raw vegetables, varying as much as possible the existing types of vegetables and vegetables; 5. avoid using ready sauces or mayonnaise and season the vegetables with natural seasonings such as onions, garlic, coriander, cumin, herbs, olive oil, vinegar, lemon; 6. at dinner, consume vegetables in the soup; 7. do not eat only salads in the main meals; you should include other foods, such as beans and lean meats.

Table 1 - Cont.

Week	Objective	Content and approach sequence
9	Guidance on the risk of certain diets and the importance of follow-up by a health professional	<ol style="list-style-type: none"> 1. Some medicines, formulas or products used to lose weight can be harmful to health, especially without the prescription and follow-up of a health professional; 2. some medicines can cause unwanted side effects such as chemical dependence, folding and weight gain, and digestive problems; 3. some teas, if used in excess, can cause liver damage or even other toxic effects, since everything we eat needs to be metabolized and eliminated by the liver and kidneys; 4. <i>shakes</i> cannot substitute meals as they can cause vitamin deficiency.
10	Strengthen guidelines on the importance of weight management; improve self-image; know the participant's assessment of the connections	<ol style="list-style-type: none"> 1. As overweight is a disease that is difficult to control and very harmful to health, it is important that the treatment be accompanied by a health professional; 2. losing weight is not easy, but it is possible. For this, there must be a balance between the food you eat and the energy you expend; 3. the choice should always be for healthy foods such as lean meats, whole foods, fruits and vegetables; 4. keeping active, always moving around and avoiding sitting too long, and doing regular physical activity is very important; 5. even if you cannot lose a lot of weight, do not give up, because not gaining more weight is already a benefit. Be patient and persistent; 6. having more weight is not a matter of appearance but of health; 7. like yourself as you are, but always taking care of your health; 8. we would love to hear your opinion on the links. What did you think of our project and to have received our calls?

Operation of the protocol of remote monitoring of nursing

Remote monitoring by telephone contact lasted ten weeks and was built and deployed by the research team, which received prior training on the approach of women, the content of the calls and the form of communication.

Most of the connections were made in the morning and evening shifts, but some were made at night, at the option of the participants. A fixed telephone line was used, in a private room of the institution proposing the research, and a mobile phone, with a specific line for the project, both informed to the participants. The mobile phone was designed to allow the return of the connection to collect, if the participants found necessary, favoring the weekly contacts and the clarification of doubts about the contents discussed.

The connections were planned to last approximately five minutes, but several times they were extended for a longer time, because some participants took advantage of the moment to solve problems related to marking appointments, performing tests and talking about other personal or family health problems, who were now afflicting them.

Since a health education program devises a set of actions and information that aim not only to approach specific care with a specific problem, but with health in a comprehensive way, it was established that other information could be included at any time if the participants requested. There should be flexibility following content exposure, allowing the participant to interrupt to ask, clarify questions and add information. During the call, the understanding of the contents should be observed, when the women were asked to report what they understood about the topics covered.

To guide the team in the operation of the links, a Telephone Call Guide (Table 2) was developed to be followed at each call, before the implementation of the Weekly Guidance Thematic Roadmap (Table 1). In addition, prior to the call, the responsible person should be with the participant's guide at hand, containing name and phone number, identification of the week, date and time of the call, and records of previous calls. Shortly after the end of the call, the writing of the notes on the guide

was established, including its duration, doubts, requests from the participant and additional guidance provided.

Table 2 - Guide to the telephone call. Salvador, BA, Brazil, 2017

1. Mandatory notes:

Date: ____/____/____ Start Time: _____

End of call time: ____ Call duration: _____ min. Number of attempts: ____

2. Presentation on the phone

Good morning or good afternoon, my name is and I am part of the research project "Remote Monitoring for Weight Control".

I wanted to talk to Mrs. (person name).

If the participant is not present, look for the best time to return the call and thank them. If the participant answers, move on to the script of the week. If the participant cannot speak now, ask when they can return the call and thank them.

3. Follow-up

If the participant can speak now, start the dialogue with the following question: "We want to know how you are". After careful listening of the response and reception, proceed to the specific script of the corresponding week, beginning with the following sentence: "This week is to tell you about (inform the theme of the week) and clarify doubts, if you have".

Include the Week's Thematic Roadmap

4. Call presentation

5. Record of the doubts and requests of the participant:

6. Record of guidelines provided:

Reflections on the protocol of remote monitoring of overweight women

The development of the nursing protocol for remote monitoring allowed the identification of facilities, difficulties and the valorization of this intervention by the participants.

The team involved in planning and implementation and their training was instrumental in ensuring therapeutic interaction. The fact that a researcher belongs to the ambulatory care team and the connections are always made by the same components of the intervention team, contributed to the dialogue taking place in a calm, spontaneous and welcoming way. The link established between professionals and clients contributes to confidence in the information received and, consequently, to the continuity of treatment,¹⁶ as well as for the mutual interest in hearing and being heard.¹⁷ The actions of health education marked by respect for the project of women to take care of themselves, by the consideration of their existing knowledge and their care needs¹⁸ provided telephone meetings valued by the actors involved.

On several occasions, the participants took advantage of the calls to request a remarking of consultations that they could not attend and information on where to carry out health exams or procedures, showing that telemonitoring represented another source of support for a more effective and humanized service, enabling new access to health care.

Often women pointed out that telephone contacts, as well as guidance on how to take better care of them, helped not to give up on returning to the program. Attentive and encouraging professionals, besides the creation of spaces for listening, welcoming, guidance and opportunities to express opinions about their own care are aspects valued by the clients.¹⁹ At times, they thanked and talked about how they felt valued for having health professionals concerned about their well-being and treatment and suggested a longer duration of monitoring. In this sense, the use of communication technologies represents an additional opportunity to share knowledge and experiences between the population and professionals and can fulfill health care needs.

The concern to provide clear information and respect the participant's refusal to speak on the telephone, delaying to a more appropriate time, contributed to the acceptance of the monitoring. This observation was made by some women when asked if the connections were being clear and timely. Good communication is one of the key factors for successful health care. Also the content of the messages and the way they are shared can influence the behavior of the people involved.²⁰

The recording of the duration of the calls, the difficulties of telephone contact, the questions and requests of the participants, the interventions made, pending guidelines and resolution of requests were essential to guide the subsequent calls. When the participant's request or doubt exceeded the knowledge of the monitoring team, the answer was sought in the literature and in consultation with specialists. Attention to the demands of each woman ensured trust in established relationships. Among the doubts expressed by the participants stood out the use of teas, medicines for weight loss and formulas for weight loss composition and replacement of some foods.

Even starting from a thematic Roadmap of Weekly Orientation, we tried to individualize each contact, talking about the existing knowledge, the beliefs and difficulties of each woman, valuing any desired change. When the participants talked about the difficulties of adherence to therapy, ways of circumventing them were discussed. Among these difficulties were the lack of time for food preparation and physical activity, forgetting the schedules related to the fractionation of meals and the annoyances due to family and work problems that distorted the diet.

Even knowing that the women already had some knowledge about the topics covered, they were gratefully received the guidelines, noting that they served as reinforcement and encouragement to put them into practice. Some people can only put health care knowledge into practice when, through the support of others, they understand its effects and understand how to do them.²¹ Professional support using different strategies is critical, and remote telephone monitoring of overweight women is a valuable technology that can integrate women's care.

The difficulties of monitoring were mainly related to the establishment of contact with women due to incorrect phones, number change or blocked line. Often, several attempts were made to speak to the participant because, even at a previously agreed time, they were sometimes unable to attend, or the call was not completed. In the face of experience, it is recommended to use this communication technology as a strategy to care for overweight women. For this, it is necessary to think of a systematic, committed and interdisciplinary work.

The development of protocols covers a complex and multifaceted field, due to the wide variety of conduits, which hampers a standard methodological course and is often adapted to the expectations and goals of the researchers.¹² These aspects may have been a limitation for the development of the present study, besides the time of the three-month monitoring, suggesting the evaluation of the experience for a longer period.

CONCLUSION

The contents treated in the connections were valued by the women, just as the established interactions promoted the sharing of knowledge and experiences among the involved actors. This technology, focused on educational actions, has proved to be an important support tool for overweight women, increasing access to information related to the care necessary for weight control, stimulating the valorization of adherence to therapeutic measures and providing access deficiencies attention to health.

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NOTES

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No any conflict of interest.

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