TEXTO & CONTEXTO ENFERMAGEM
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NURSING CARE FOR INDIVIDUALS WITH OVERWEIGHT AND OBESITY: CONTRIBUTIONS OF A REMOTE SPECIALIZATION COURSE

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ABSTRACT

Objective: to analyze the contributions of a specialization course in qualifying nurses for the prevention and care of individuals with overweight and obesity.
Method: an evaluative research employing a mixed-methods approach, incorporating both qualitative and quantitative methodologies, conducted with 289 nurses enrolled in a distance specialization course focusing on the care of individuals with overweight and obesity. Pre-course (2021) and post-course (2022) questionnaires were administered to assess the outcomes of the training regarding knowledge, practices, and perceptions related to the topic, with results being compared between the two time points. The statistical Mann-Whitney test was applied to compare the means. For qualitative data analysis, content analysis was employed.
Results: the majority of participants were female, aged between 30 and 39 years, working in Primary Health Care (PHC), and with a status of statutory civil servants. When comparing the means obtained pre and post-course, the majority showed a statistically significant increase, indicating enhanced knowledge regarding the topic, improved qualification in food and nutritional surveillance practices, individual and collective approach, intersectoral interventions, and implementation of the care pathway. There was an improvement in the perception regarding the adequacy of both individual and team fitness in the care, prevention, and control of overweight and obesity.
Conclusion: the specialization course contributed to enhancing nurses' performance in the care of individuals with overweight in primary care settings. There was an acquisition of knowledge, sensitization, and broadening of perspectives regarding disease management. The nurses were equipped with the necessary tools for food and nutritional surveillance practice, utilization of health information systems, and implementation of individual, collective, and intersectoral activities.

DESCRIPTORS: Overweight. Obesity. Education at a distance. Nursing in community health. Primary health care.

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ENFERMAGEM NO CUIDADO DE PESSOAS COM SOBREPESO E OBESIDADE: CONTRIBUIÇÕES DE UMA ESPECIALIZAÇÃO A DISTÂNCIA

RESUMO

Objetivo: analisar as contribuições de um curso de especialização na qualificação dos enfermeiros para a prevenção e o cuidado de pessoas com sobrepeso e obesidade.
Método: pesquisa avaliativa, de abordagem qualitativa e quantitativa, realizada com 289 enfermeiros de curso de especialização à distância para atenção de pessoas com sobrepeso e obesidade. Foram aplicados questionários pré-curso (2021) e pós-curso (2022) sobre os resultados da formação acerca dos conhecimentos, das práticas e das percepções sobre a temática, e comparados os resultados. Para comparação das médias foi aplicado teste estatístico de Mann Whitney. Para análise de dados qualitativos, aplicou-se a análise de conteúdo.
Resultados: predominaram participantes do sexo feminino, com idade entre 30 e 39 anos, atuantes na APS e com vínculo de servidor estatutário. Ao comparar as médias obtidas pré e pós-curso, a maioria apresentou aumento com significância estatística, representando aumento do conhecimento acerca do tema, qualificação das práticas de vigilância alimentar e nutricional, da abordagem individual, coletiva, intersetorial e da implementação da linha de cuidado. Houve melhoria na percepção sobre a aptidão própria e da equipe, no cuidado, na prevenção e no controle do sobrepeso e da obesidade.
Conclusão: o curso de especialização contribuiu para atuação dos enfermeiros no cuidado de pessoas com excesso de peso na atenção primária. Houve aquisição de conhecimento, sensibilização e ampliação do olhar sobre a abordagem da doença. Os enfermeiros foram instrumentalizados para prática de vigilância alimentar e nutricional, uso dos sistemas de informação em saúde, realização de atividades individuais, coletivas e intersetoriais.

DESCRITORES: Sobrepeso. Obesidade. Educação à distância. Enfermagem em saúde comunitária. Atenção primária à saúde.

ATENCIÓN DE ENFERMERÍA PROVISTA A PERSONAS CON SOBREPESO Y OBESIDAD: APORTES DE UN CURSO DE ESPECIALIZACIÓN A DISTANCIA

RESUMEN

Objetivo: analizar los aportes de un curso de especialización en la calificación de los enfermeros con fines preventivos y para la atención de personas con sobrepeso y obesidad.
Método: investigación evaluativa con enfoque cualitativo y cuantitativo, realizada con 289 enfermeros que asistieron a un curso de especialización a distancia para la atención de personas con sobrepeso y obesidad. Se aplicaron cuestionarios antes (2021) y después (2022) del curso sobre los resultados de la capacitación acerca de los conocimientos, las prácticas y las percepciones sobre la temática, además de contrastarse los resultados. Para comparar los valores medios se aplicó la prueba estadística de Mann Whitney. Para analizar los datos cualitativos se aplicó análisis de contenido.
Resultados: hubo predominio de participantes del sexo femenino, de entre 30 y 39 años de edad, activos en APS y con vínculos laborales estatutarios. Al comparar los valores medios obtenidos antes y después del curso, la mayoría presentó un aumento estadísticamente significativo, representando una mejora en el conocimiento acerca del tema, de la calificación de las prácticas de vigilancia alimentaria y nutricional, del enfoque individual, colectivo e intersectorial y de la implementación de la línea de cuidado. Se registró una mayor percepción sobre la aptitud propia y del equipo, tanto en la atención y la prevención del sobrepeso y la obesidad como en su control.
Conclusión: el curso de especialización contribuyó a perfeccionar el accionar de los enfermeros en la atención provista a personas con exceso de peso en el nivel de Atención Primaria de la Salud. Los participantes adquirieron conocimientos, se sensibilizaron con respecto al tema y expandieron su perspectiva sobre cómo abordar la enfermedad. Se equipó a los enfermeros para que pongan en práctica la vigilancia alimentaria y nutricional, utilicen los sistemas de información en salud y realicen actividades individuales, colectivas e intersectoriales.

DESCRIPTORES: Sobrepeso. Obesidad. Educación a distancia. Enfermería en salud comunitaria. Atención primaria de la salud.

INTRODUCTION

The overweight category encompasses both overweight and obesity, representing the excessive accumulation of body fat that is detrimental to health. The Body Mass Index (BMI) is the indicator that relates weight to the square of height (kg/m^2) and is used to classify overweight (BMI > 24.9) and obesity (BMI > 29.9) in adults[1]. It constitutes one of the main risk factors for Chronic Non-Communicable Diseases (CNCDs), such as cardiovascular diseases, type 2 diabetes *mellitus*, hypertension, certain types of cancer, musculoskeletal disorders, and depression[2, 3]. In Europe, overweight stood out as the primary risk factor for disability, and obesity has been associated with increased morbidity and mortality from Covid-19[2].

A study conducted in 195 countries identified 603.7 million adults with obesity. During the analyzed period from 1980 to 2015, prevalence values increased in the majority of countries, with numbers doubling in 35.9% (n=70) of them[4]. In Europe, it was identified that 60% of European adults were overweight in 2017. During the period from 2006 to 2016, there was a 21% increase in the prevalence of obesity. In another period analyzed, between 1975 and 2017, this percentage reached 138%[2].

In Brazil, the prevalence of adults with overweight in a set of 27 Brazilian cities surveyed in 2021 was 57.2%, representing a 42.6% increase compared to data from 2006, while the prevalence of obesity increased from 11.8% to 22.4%[5].

Data from 161 countries on health expenditures showed that the costs of addressing overweight conditions in 2019 represented 2.19% of the global Gross Domestic Product (GDP), with projections to reach 3.29% by 2060[6]. Additionally, indirect losses and costs were observed, negatively impacting quality of life, premature deaths, and work absenteeism, all related to obesity[7].

In 2018, in Brazil, approximately BRL 3.45 billion, roughly USD 890 million, were spent on the assistance of patients affected by hypertension, diabetes, and obesity in the SUS. Of this amount, BRL 1.42 billion, 41% of the total, was spent on the care of patients with obesity[8].

Given this epidemiological scenario and the impacts on population health and healthcare budgets, there is a marked need for multidisciplinary work in the prevention and control of overweight in Primary Health Care (PHC)[10], enhancing existing strategies within the Brazilian context[10].

In the context of PHC, nurses have the responsibility to provide individual care, conduct group activities, and refer patients to other points of the healthcare network. Additionally, risk stratification should be performed, and care plans should be developed collaboratively with the team for the population with chronic diseases[11], including obesity[12].

A study examining the role of nurses in primary healthcare settings with individuals who have obesity identified that these professionals routinely have the opportunity to provide counseling on diet and physical activity, utilizing digital resources, motivational techniques, and nursing consultations, resulting in positive outcomes. However, it revealed that the professionals reported having limited knowledge about obesity, which poses a challenge in welcoming and addressing the needs of the users. Furthermore, it was found that nurses expressed interest in participating in training sessions on the subject, emphasizing that continuing education can play a role in raising awareness and enhancing their ability to identify and address cases[13].

In response to the professional qualification needs of primary healthcare teams for addressing overweight and obesity, a distance specialization course titled “Healthcare for People with Overweight and Obesity” was offered in 2019, with evaluative research related to its implementation. The target audience consisted of PHC professionals, with priority given to certain categories, including nursing[14].

The research question for this study was: “what are the contributions of the specialization course in the training and practice of nurses for addressing individuals with overweight and obesity?” Thus, the objective was to analyze the contributions of a specialization course in the qualification of nurses for the prevention and care of individuals with overweight and obesity.

METHOD

This is an evaluative research study with a qualitative and quantitative approach focused on the educational outcomes regarding the performance of nurses in primary healthcare enrolled in the distance specialization program "Comprehensive Healthcare for People with Overweight and Obesity," conducted by *Universidade Aberta* belonging to the Unified Health System at *Universidade Federal de Santa Catarina* in partnership with the Food and Nutrition General Coordination of the Ministry of Health, from 2020 to 2022. For graduates of the course, the expectation was that they would be able to intervene in the prevention and control of overweight and obesity in the population they served, based on the reality in which they were embedded. The course targeted professionals with a higher education level working in PHC, Expanded Family Health Centers and Primary Healthcare, and Health Academy centers, distributed throughout the national territory, with priority given to nurses, physicians, nutritionists, psychologists, physical activity instructors, and health managers.

The present research was preceded by an evaluability study, in which an evaluative model was developed and validated for application to students of the specialization course, based on the study of Colussi *et al.*[15]. The evaluative matrix comprises three dimensions, each with specific sub-dimensions and indicators (Chart 1). The data sources include students, tutors, and course managers.

Chart 1 – Dimensions and sub-dimensions of the evaluative matrix for specialization and self-instructional courses, along with the respective quantities of indicators and measures. Florianópolis, SC, Brazil, 2021.

Dimensions	Sub-dimensions	Specialization		Self-instructional	
		Indicators	Measures	Indicators	Measures
I – Course characteristics and educational resources	(S1) Curriculum structure	5	16	3	6
	(S2) Information and communication technologies	4	17	3	9
	(S3) Pedagogical strategies	4	12	2	5
	(S4) Educational resources	4	10	5	7
	(S5) Pedagogical team	3	5	–	–
	(S6) Interactive processes	3	13	–	–
II – Institutional aspects	(S1) Technical-administrative management of the course	3	9	4	7
	(S2) Course monitoring and evaluation	2	3	–	–
III – Outcomes	(S1) Training	2	2	2	2
	(S2) Professional qualification	2	6	1	3
	(S3) Technical-scientific production	1	2	–	–
	(S3) Work process qualification	–	–	1	4
	(S4) Student satisfaction	1	2	1	2
	(S5) Knowledge, practices, and perceptions related to overweight and obesity	3	15	1	3
3	**13**	**37**	**112**	**23**	**48**

The participants in this research were the nurses enrolled in the specialization course. Data collection related to the sub-dimension (S5) of "Knowledge, practices, and perceptions related to overweight and obesity," within the dimension of "Outcomes" (III), occurred at two distinct time points – pre-course and post-course – allowing for the comparison of results. It consists of a questionnaire with 14 Likert scale questions and 1 dichotomous (yes/no) question, related to the 15 measures of the 3 indicators that make up the sub-dimension (Chart 2). In the post-course assessment, an open-ended question was included: "Did the completion of the course contribute to changes in the work process for promoting health, preventing, and controlling overweight and obesity? Please describe the main changes".

Chart 2 – Indicators and measures, parameters, and sources of dimension III (Outcomes), sub-dimension S5 (knowledge, practices, and perceptions related to overweight and obesity). Florianópolis, SC, Brazil, 2021.

Indicators and measures	Parameter	Source
Indicator 1 – Knowledge about overweight and obesity		
M1 – Recognizes the magnitude and consequences of overweight and obesity on individuals, families, communities, and the healthcare system.	Good=(5.0 to 4.0) Fair=(3.9 to 2.1) Poor=(2.0 to 1.0)	Student
M2 – Recognizes the multiple determinants of the health-disease process related to overweight and obesity.		
M3 – Knows the norms defining the guidelines for organizing the Care Line for Overweight and Obesity.		
Indicator 2 – Practices related to overweight and obesity		
M1 – Conducts anthropometric assessment in users	Good=(5.0 to 4.0) Fair=(3.9 to 2.1) Poor=(2.0 to 1.0)	Student
M2 – Conducts dietary intake assessment in users		
M3 – Uses the Food and Nutritional Surveillance System for recording anthropometric and/or dietary intake data		
M4 – Uses information from the Food and Nutritional Surveillance System for health action planning in the territory		
M5 – Conducts individual approach for caring for individuals with overweight and obesity in different life stages (child, adolescent, adult, elderly)		
M6 – Conducts group approach for health promotion, prevention, and management of overweight and obesity		
M7 – Encourages intersectoral coordination for health promotion, prevention, and control of overweight and obesity in the territory		
M8 – Collaborates in the implementation of the Care Line for Overweight and Obesity	Good=75% or more YES; Fair=74% to 26% YES; Poor=25% or less YES	

Chart 2 – Cont.

Indicators and measures	Parameter	Source
Indicator 3 – Perceptions related to overweight and obesity		
M1 – Recognizes overweight and obesity as relevant conditions in their work context	Good=(5.0 to 4.0) Fair=(3.9 to 2.1) Poor=(2.0 to 1.0)	Student
M2 – Feels capable of intervening and collaborating in actions for the prevention and control of overweight and obesity		
M3 – Considers their team capable of intervening in the care of individuals with overweight and obesity treated at their Basic Health Unit (UBS)		
M4 – Considers their team capable of intervening in actions for the prevention and control of overweight and obesity, as well as health promotion activities developed in their territory		

The questionnaires were administered through the *Survey Monkey* tool in the first month of the course (March 2021) and after the presentation of the Final Course Project (June 2022). The questionnaire responses were converted to scores ranging from 1 to 5, with 1 being the worst alternative and 5 being the best. Then, the average score of the responses for each question was calculated, and based on the established parameters (Chart 2), the judgment of "Good," "Fair," or "Poor" was assigned. The means of the two assessment moments were compared using the Mann-Whitney median test, considering the non-normality of the samples, as determined by the Shapiro-Wilk test. Differences were considered significant when p-values were < 0.05. Quantitative analyses were conducted using the statistical software Stata 14.0.

For the characterization of the respondents (gender, age, state and Brazilian region of work, type of employment relationship, length of service), descriptive statistics were performed, presenting absolute and relative frequencies, and confidence intervals (95% CIs).

Content analysis[16–17] was used for the treatment of qualitative data related to the open-ended field of the questionnaires, operationalized in the following steps: 1 – Organization of the analysis (floating reading and preparation of the materials); 2 – Coding (Exploration of the material: construction of the codes and selection of the text segments for subsequent analysis); 3 – Categorization (grouping of codes of interest into analytical dimensions); and 4 – Treatment and interpretation of the results. The ATLAS.ti 8 software (Qualitative Data Analysis) was used in the analysis process. Stages 1,2, and 3 of content analysis were conducted within the software. The analyses of the open-ended question were conducted based on three aprioristic categories which were derived from the sub-dimensions of the evaluative matrix (knowledge about overweight, perceptions related to overweight, practices related to overweight).

The research was approved by the Ethics Committee, and all ethical aspects involving research with human subjects were respected as recommended by Resolution No. 466/2012 of the National Health Council (*Conselho Nacional de Saúde*, CNS), including the signing of the Free and Informed Consent Form (FICF) by all research participants.

RESULTS

Considering the enrolled nurses (n=349) and graduates (n=218) of the specialization course, a response rate of 82.8% (n=289) was obtained for the pre-course questionnaire and 85.8% (n=187) for the post-course questionnaire. According to the information from Table 1, over 80% of the nurses who completed the course were female, and the predominant age group was 30 to 39 years old. Regarding geographical distribution, the Southeast and Northeast regions had the highest number of professionals who enrolled in and completed the specialization. Regarding the variable "type of team", the majority worked in Primary Care Teams. In the information from course graduates, a new category emerged for those who reported not currently working. Regarding the employment relationship, more than half were statutory public servants.

Table 1 – Characterization of the nurses completing the Specialization Course in Healthcare for People with Overweight and Obesity – *Universidade Aberta* of *Sistema* Único *de Saúde* belonging to *Universidade Federal de Santa Catarina*. Florianópolis, SC, Brazil, 2021.

Variable	Pre-course (n=289)	Post-course (n=187)
	n (%)	n (%)
Gender		
Female	249 (86.1)	154 (82.3)
Male	40 (13.9)	33 (17.7)
Age group		
24-29	28 (9.7)	9 (4.8)
30-39	149 (51.5)	92 (49.2)
40-49	93 (32.2)	71 (38.0)
50+	19 (6.6)	15 (8.0)
Region of residence		
North	23 (7.9)	16 (8.6)
Northeast	86 (29.8)	56 (29.9)
Southeast	101 (34.9)	67 (35.8)
South	57 (19.8)	36 (19.3)
Midwest	22 (7.6)	12 (6.4)
Type of team		
Specialized care	13 (4.5)	16 (8.6)
Primary Health Care	249 (86.2)	149 (79.7)
Management	17 (5.9)	14 (7.5)
Others	10 (3.4)	3 (1.6)
Not working	–	5 (2.6)
Employment contract		
Scholarship/Resident	4 (1.4)	–
Commissioned position	24 (8.3)	18 (9.7)

Table 1 – Cont.

Variable	Pre-course (n=289)	Post-course (n=187)
	n (%)	n (%)
Employment contract under the Consolidation of Labor Laws	44 (15.2)	26 (13.9)
Temporary contract in the public administration	59 (20.4)	33 (17.6)
Statutory public servant	158 (54.7)	104 (55.6)
Not currently working	–	6 (3.2)

Table 2 presents the means obtained for each evaluated measure. It is noteworthy that the majority (n=14) of the measures showed a significant increase in means after completing the course. The only measure where a significant increase was not observed is the relevance of overweight and obesity in the professionals' work context, which already had a high initial score (4.84).

Table 2 – Comparison of means obtained regarding "Knowledge, practices, and perceptions related to overweight and obesity" in pre and post-course questionnaire application. Florianópolis, SC, Brazil, 2021.

Knowledge, practices, and perceptions related to overweight and obesity	Pre-course means	Post-course means	p-value*
Knowledge about overweight and obesity			
Recognizes the magnitude and consequences of overweight and obesity on individuals, families, communities, and the healthcare system	4.82	4.96	**0.02**
Recognizes the multiple determinants of the health-disease process related to overweight and obesity	4.49	4.82	**0.0005**
Knows the norms that define the guidelines for organizing the Care Line for Overweight and Obesity	3.38	4.56	**<0.001**
Practices related to overweight and obesity			
Conducts anthropometric assessment in users	3.87	4.47	**<0.001**
Conducts dietary intake assessment in users	3.19	4.06	**<0.001**
Uses the Food and Nutritional Surveillance System to record anthropometric and/or dietary intake data	2.58	3.81	**<0.001**
Uses information from the Food and Nutritional Surveillance System for health action planning in the territory	2.38	3.7	**<0.001**
Conducts individual approach for caring for individuals with overweight and obesity in different life stages (child, adolescent, adult, elderly)	3.53	4.39	**<0.001**
Conducts group approach for health promotion, prevention, and management of overweight and obesity	3.18	4.16	**<0.001**
Encourages intersectoral coordination for health promotion, prevention, and control of overweight and obesity in the territory	3.29	4.19	**<0.001**
Collaborates in the implementation of the Care Line for Overweight and Obesity	0.75	0.96	**0.0001**
Perceptions related to overweight and obesity			
Recognizes overweight and obesity as relevant conditions in their work context	4.84	4.93	**0.24**

Table 2 – Cont.

Knowledge, practices, and perceptions related to overweight and obesity	Pre-course means	Post-course means	p-value*
Feels capable of intervening and collaborating in actions for the prevention and control of overweight and obesity	3.64	4.7	**<0.001**
Considers their team capable of intervening in the care of overweight and obese individuals attended at their UBS	3.25	3.95	**<0.001**
Considers their team capable of intervening in actions aimed at preventing and controlling overweight and obesity, as well as promoting health within their community.	3.28	3.97	**<0.001**

From the analysis of the open-ended question content, the coding process resulted in 41 codes. Based on the three *a priori* categories, eight analytical dimensions were identified, as described in Chart 3.

Chart 3 – *A priori* categories and their analytical dimensions. Florianópolis, SC, Brazil, 2021.

A priori categories	Analytical dimensions
Knowledge about overweight	• General knowledge, diagnosis, and comprehensive approach to overweight • Understanding the (multi)professional work process
Practices related to overweight	• Food and Nutritional Surveillance • Planning, organization of workflow, and Care Line for Overweight and Obesity • Multiprofessional teamwork • Individual, collective, and intersectoral approach from a comprehensive perspective
Perceptions related to overweight	• Raising awareness about the issue of overweight • Expanded view of overweight and recognizing it as a chronic non-communicable disease

KNOWLEDGE ABOUT OVERWEIGHT

In the nurses' reports, there was a recurrent affirmation that the training provided access to new knowledge about general aspects of overweight, both theoretical and practical, enhancing the expertise of these professionals to deal with the issue in their territories. Highlights included learning about the factors contributing to overweight and obesity, recognizing cases, as well as interventions for health promotion, prevention, and care for individuals with overweight, both at the collective and individual levels.

[…] *knowledge about the main factors contributing to the rise of obesity and how to work with existing groups in the UBS* (NUR 02). […] *increased technical and scientific knowledge about the topic, improvement in individual and collective approaches, clearer guidance, and formulation and evaluation of results* (NUR 08).

As a nurse, we always operate within the health conditions, but little focus was given to preventing the condition. With training and knowledge about food surveillance, we have different perspectives on this condition (NUR 60).

Furthermore, regarding knowledge, it was pointed out that the training enabled understanding the need for multiprofessional work and the role of individual responsibilities, providing confidence in approaching individuals with overweight.

[…] *after the course, I feel more confident in approaching patients with overweight and obesity. Before, I felt uncomfortable because I had some issues with users feeling offended by my approach* (NUR 130). […] *the course made us reflect on the more successful multiprofessional work in care* (NUR 14).

Practices related to overweight

The nurses reported that during the training, they began to introduce actions of food and nutritional surveillance into their daily work routines and those of their teams. The incorporation of activities into the work routine was reported, such as conducting nutritional status assessments through anthropometric evaluation and evaluating dietary intake in the users attended. The filling out of this information in the information systems was also enhanced.

[…] *I started assessing BMI during nursing consultations* (NUR 173).

Implementation of systematic nutritional assessment during consultations at the UBS (NUR 174). […] *the course sensitized me to perform and record anthropometry in all consultations; it prompted approaching users with overweight/obesity to be conducted on all occasions* (NUR 95).

In practical changes, the planning of activities to address overweight was highlighted, based on nutritional status diagnoses and territorial conditions, including the use of Food and Nutritional Surveillance System (SISVAN). Changes were observed in the organization of workflow among teams and coordination with other sectors for the comprehensive care of individuals with overweight. Advancements were noted in the implementation of LCSO in some statements.

[…] *analysis of population epidemiological profiles and use of databases to support work processes* (NUR 186). […] *I saw people with a different perspective, always focusing on the territory and the habits they have within their family and community... It showed that we should talk both individually and collectively about healthy habits* (NUR 75).

[…] *planning actions, data analysis in SISVAN* (NUR 163).

[…] *systematization of the work process; formatting the flowchart for overweight and obesity care at the municipal and regional levels* (NUR 157).

[…] *the care line was implemented in my municipality* (NUR 154).

The understanding of the need for multiprofessional work became a practical approach in individual and collective approaches, aiming to provide comprehensive care to users. Highlighted are the identification of cases, implementation of actions for promoting adequate and healthy eating, and encouragement of physical activity for prevention and control of overweight and obesity cases, along with the improvement of actions in individual consultations. There was reactivation and creation of collective activities, especially groups coordinated by nurses, focused on addressing overweight based on the methodologies proposed in the course.

[…] *welcoming individuals with overweight and obesity with a humanized approach* (NUR 173).

[…] *approaching patients to provide guidance on lifestyle changes, encouraging physical activities, and gradual dietary changes* (NUR 140).

[…] *improved care for patients with overweight and obesity by the multiprofessional team, ensuring comprehensiveness* (NUR 170).

[…] *improvement in professional performance, approach to patients with overweight and obesity, formation of interdisciplinary workgroups* (NUR 107).

[…] *certainly, as we created physical activity groups and also conducted research to better understand the profile* (NUR 110).

Intersectoral practices were also identified, focusing on territories, especially in the school context with children and families, as well as comprehensive actions with the mobilization of community fairs for the promotion of food and nutritional security, increasing the availability of healthy foods.

[…] *actions to motivate students and parents to adopt healthy eating habits at school and within the family environment*" (NUR 148).

[…] *activities for changing the eating habits of students, parents/guardians in the schools covered by the Family Health Strategy (ESF)* (NUR 149).

[…] *creation of community fairs in the municipality* (NUR 146).

Perceptions related to overweight

Regarding nurses' perceptions of overweight, it was identified in the reports that the course had the effect of sensitizing them to the issue. There has been progress in recognizing the issue as part of nursing's responsibility, involving them in actions to address overweight and obesity in PHC.

[…] *expanded view of the nurse's role in addressing obesity in Primary Health Care and motivation to carry out the proposed work in the community* (NUR 70).

[…] *the main and most important change from my perspective is not only looking at individuals with overweight but diagnosing this fact to establish a care plan* (NUR 71).

[…] *it enabled the development of a more sensitive approach and more targeted guidance for users with overweight and obesity* (NUR 77).

It was observed that the training awakened these professionals to the relationship between overweight and other CNCDs. It also allowed nurses to transcend from a reductionist view that blames the individual for their health condition, with approaches centered on behaviors and individual practices, to an expanded view that understands overweight related to biological, socioeconomic, cultural, and environmental determinants.

[…] *identifying overweight and obesity in the population and its relationship with the occurrence of non-communicable chronic diseases* (NUR 79).

[…] *viewing overweight and obesity as a chronic problem* (NUR 78).

[…] *seeing users with obesity not as being guilty* (NUR 65).

[…] *I started to have a different perspective on users with overweight, where before the focus was more on the obese individual* (NUR 59).

DISCUSSION

The course evaluation showed that there was a significant contribution to the qualification of nurses regarding knowledge, practices, and perceptions about overweight and obesity in PHC. Highlighted are the increase in knowledge about the determinants, magnitude, and consequences of overweight, as well as comprehensive care and teamwork. In terms of practices, highlights include the qualification in conducting nutritional status assessments, the use of SISVAN, user approach, and LCSO implementation. Nurses' perception of the issue was broadened, recognizing obesity as a CNCD, multifactorial, related to the environment, socioeconomic factors, and cultural aspects, in addition to individual factors. Perception of the team and the nurse's ability to care for individuals with overweight and obesity also improved by the end of the course.

Considering the growing magnitude of overweight, PHC is central in the care of individuals with overweight and obesity[9]. The nurse is considered a protagonist in care and assumes leadership roles in PHC, whether in team management or in actions to address users with CNCDs[18]. In a review study, the lack of training in managing overweight and obesity appears as one of the difficulties faced by nurses[19]. In another review study, the importance of nurses in preventive actions for childhood and adolescent overweight was highlighted due to the magnitude of their workforce. Adequate training optimizes the qualification of care provided by nurses in the prevention of childhood obesity[20].

In Minas Gerais, a study emphasized the need for training to qualify nurses in the prevention and control of overweight, which is still incipient in undergraduate programs. Continuing education contributes to updating on policies within PHC, equipping nurses with guidance on healthy eating and physical activity, monitoring nutritional status, and referral flows in the healthcare network[12].

There was evidence of an expansion of practices aimed at preventing and controlling overweight adopted by nurses in PHC, as well as monitoring the nutritional status of the assigned population. In the international context, a scoping review identified that nurses' approach to people with overweight occurs as patients gain weight; however, often this issue is not addressed timely, there are difficulties in BMI classification, as well as a lack of records of anthropometric and dietary intake data[20].

In a study conducted in PHC in São Paulo, a significant role of nurses was found in measuring anthropometric measures and classifying BMI in pregnant women, a population usually followed by the nursing team; however, other users were still predominantly evaluated by nutritionists[21]. Expanding nutritional and food surveillance practices within family health teams is essential for the proper diagnosis of the enrolled population.

The importance of monitoring nutritional status lies in recognizing the issue at the individual level, enabling a comprehensive and efficient approach, as well as understanding the indices in the enrolled population, aiding in the planning of health promotion activities and prevention of this condition. The lack of monitoring of these indicators can lead to the deprivation of care for individuals who need weight monitoring[22]. In a study mapping actions for the prevention and control of obesity in the state of Rio de Janeiro, respondents reported that the approach focused on the complications of overweight, such as cardiovascular diseases and diabetes, often results from the lack of monitoring of users' nutritional status, leading to inadequate management and consequent worsening of cases handled by the teams[23].

After completing the course, there was an increase in the use of SISVAN, both for data entry and for action planning. It is worth noting that the appropriate use of health information systems is a constant challenge for SUS[24]. Although there has been an increase in SISVAN registrations, population coverage remains low[25]. In addition to the non-mandatory nature of SISVAN, this is related to the low usage and workload of PHC professionals, lack of training for data collection and entry, turnover, and difficulty in internet connection for accessing the forms[26]. The systematization of information is crucial for monitoring the nutritional status of the population.

The implementation of individual, collective, and intersectoral actions was enhanced after the course. In line with the results, a study conducted in the state of Rio de Janeiro identified that individual consultations, group activities (educational, support, waiting rooms), as well as coordination with public policies, and intra and intersectoral articulation, are the main practices of obesity care developed[23]. In another review study, it was evidenced that activities led by nurses and aimed at people with overweight occur in community spaces, education, and health services. They involve parents and are based on motivational interviews for lifestyle changes in children and adolescents[20].

Understanding regulations, programs, and public policies for the care of people with overweight is necessary to systematize actions, as well as to define the roles of each level of the health care network, for the consolidation of LCSO and strengthening of the referral and counter-referral system. Furthermore, there is a need for nurses to be trained and participate in the planning process of actions for users with overweight, as the promotion of healthy lifestyle habits already occurs for the general public. In other words, beyond health promotion actions, actions for control, prevention, and treatment are necessary for the population with overweight[12].

This research found that the course brought an expanded view to the issue, moving from a blaming perspective to a perception that considers the social determinants of overweight. This result represents an important advancement regarding the stigmas and stereotypes that are often

reproduced by healthcare professionals in the care of people with overweight. In a survey conducted in 92 municipalities in Rio de Janeiro, participants (nutritionists, nurses, doctors) reported considering obesity as "shameful", legitimizing individual blame instead of shared responsibility for care[23].

Prejudiced attitudes towards obesity were identified in a study involving 42 nurses in PHC in Blumenau, Santa Catarina. There was a blaming of users for overweight and the perception that the condition was only related to the consumption of "a lot of junk food". The stigma led to moral judgments with a negative impact on users' lives, affecting self-perception, undermining self-esteem and self-confidence, and leaving them susceptible to mental health problems such as anxiety, depression, and suicidal ideation[27]. Prejudiced attitudes by healthcare professionals, including nurses, are corroborated in the international literature with the identification of prejudiced approaches, causing mental distress, binge eating, and weight gain among users[28].

Recognition of the multiple determinants of the health-disease process related to overweight and obesity was also enhanced after completing the course. This aspect is fundamental for overcoming the stigma of obesity, as it enables the perception of the impact of the obesogenic environment, inequalities in access to adequate and healthy food, and physical activity, as well as other multifactorial relationships of overweight[29].

For a comprehensive understanding of overweight and promotion of care integrality, multidisciplinary teamwork is essential so that the nurse has support to complement specific competencies on the prevention and management of people with overweight[13,23]. The nurse acts as a facilitator of care and in strengthening the production of qualified care, through listening, welcoming, and building rapport, and these attributes of work are motivations to perform their daily functions, aiming for continuity and quality of care[13]. The interaction with the multidisciplinary team and matrix support contributes to the implementation of care in PHC, as it enhances the expansion of knowledge about complex conditions and enables better provision of care to health service users[13].

As limitations of this study include the inability to directly measure the impact of the training on the nurses' field of work, a process that would require analyzing health indicators of the territories and the work process of the teams. However, it is worth emphasizing the relevance of the results obtained, which identified positive changes promoted by the course in the training and practices of nurses in addressing people with overweight.

CONCLUSION

The specialization course entitled "Attention to the Health of People with Overweight and Obesity" contributed to the qualification of nurses' performance in dealing with the issue of overweight in PHC. Through the training, there was an acquisition of knowledge about the topic, enabling professionals to broaden their perspective on caring for people in this condition, transcending a reductionist and blaming view to an expanded one, considering the multiple determinants involved, as well as the need for qualified professional engagement with their teams and territories.

The course equipped nurses with skills for food and nutrition surveillance practices, involving anthropometric assessments, dietary intake evaluations, data entry into SISVAN, extraction, and utilization of information for action planning. There was also evidence of the nurses' leadership in collective activities, such as creating and coordinating groups, advancements in individual care, and, at times, intersectoral coordination, working towards promoting healthy environments.

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NOTES

ORIGIN OF THE ARTICLE

Extracted from the project – Evaluation of Training and Specialization Courses for the Prevention and Control of Overweight and Obesity, developed by a group of researchers from the Public Health Department at *Universidade Federal de Santa Catarina* between 2020 and 2022.

CONTRIBUTION OF AUTHORITY

Study design: Lindner SR, Coelho EBS, Warmling D, Campos DA, Conceição TB, Bolsoni CC, Colussi CF.
Data collection: Warmling D, Campos DA, Conceição TB, Bolsoni CC.
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APPROVAL OF ETHICS COMMITTEE IN RESEARCH

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CONFLICT OF INTEREST

There is no conflict of interest.

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