

# "Say no to malnutrition" campaign: a nutritionist's perspective on the current scenario

*Campanha "Diga não à desnutrição": o cenário atual na visão do nutricionista*

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## ABSTRACT

**Introduction:** The campaign "Say no to malnutrition" was promoted aiming to reduce hospital malnutrition rates. The objective of this study was to describe the application scenario of the mnemonic method of the 11 steps proposed by the campaign to prevent malnutrition, according to the perspective of nutritionists. **Methods:** This was an observational, cross-sectional and descriptive study. An electronic form with questions about actions suggested by the campaign was applied to nutritionists. **Results:** There were 66 responses. Eight out of the 11 steps garnered responses considered positive for full or partial implementation, with or without protocol, for all patients or for those at nutritional risk. These eight steps included nutritional screening (92.4%) and assessment (98.4%), weekly weight monitoring (74.3%), calculation of needs (93.9%), adequacy assessment (81.8%), documentation record (97%), humanized care (83.3%), discharge guidance (86.4%), and application of quality indicators (87.7%). One step seems to be partially implemented, as muscle mass is evaluated by the majority (75.7%), but muscle strength is not (40.9%). The steps presenting absence of early mobilization protocol (45.3%) and absence of fasting protocol or low adherence to the protocol for surgeries (68.2%) and for exams (77.3%) presented concerning summed responses. There was partial agreement regarding the implementation of campaign steps (average ranking of 3.66). **Conclusion:** From the perspective of nutritionists, there is a scenario of partial agreement in the application of the campaign, as most steps have been applied, at least partially. However, fasting abbreviation protocols, assessment of muscle strength, and early mobilization protocols seem to require strengthening actions.

## RESUMO

**Introdução:** A campanha "Diga não à desnutrição" foi encorajada visando reduzir índices de desnutrição hospitalar. O objetivo deste estudo foi descrever o cenário da aplicação do método mnemônico dos 11 passos para combate à desnutrição propostos pela campanha, na visão do nutricionista. **Método:** Estudo observacional, transversal e descritivo. Um formulário eletrônico com questões sobre ações sugeridas pela campanha foi aplicado entre nutricionistas. **Resultados:** Houve 66 respostas. Oito dos 11 passos somaram respostas consideradas positivas de implantação total ou parcial, com ou sem protocolo, para todos os pacientes ou para aqueles em risco nutricional. Esses passos foram a triagem (92,4%) e avaliação (98,4%) nutricional, monitoração semanal de peso (74,3%), cálculo das necessidades (93,9%), avaliação da adequação (81,8%), registro em prontuário (97%), atendimento humanizado (83,3%), orientação de alta (86,4%) e aplicação de indicadores de qualidade (87,7%). Um passo parece estar implantado parcialmente, pois embora a massa muscular seja avaliada pela maioria (75,7%), a força muscular não é (40,9%). Os passos com ausência de protocolo de mobilização precoce (45,3%) e ausência de protocolo de jejum ou baixa adesão ao protocolo para cirurgias (68,2%) e exames (77,3%) apresentaram respostas somadas preocupantes. Houve concordância parcial quanto à implantação dos passos da campanha (ranking médio de 3,66). **Conclusão:** Na visão dos nutricionistas, existe um cenário de concordância parcial na aplicação da campanha, onde a maior parte dos passos tem sido aplicada, ao menos parcialmente. Todavia, protocolos de abreviação de jejum, avaliação de força muscular e mobilização precoce parecem precisar de ações de fortalecimento.

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## INTRODUCTION

Malnutrition is generally defined as a state resulting from nutrient deficiency, caused by reduced intake or absorption of nutrients, which leads to changes in body composition, functionality, mental state of the individual, and adverse clinical outcomes<sup>1,2</sup>.

In Brazil, in the late 1990s, the Brazilian Hospital Nutritional Assessment Survey (IBRANUTRI)<sup>3</sup>, a multicentre study conducted in 25 public hospitals across 12 states, found that 48.1% of hospitalized patients showed some degree of malnutrition. Among these patients, 12% were severely malnourished and 35.5% moderately malnourished. Furthermore, the prevalence of malnutrition among newly admitted patients (up to two days) was 33.2% and this rate increased to 61% for those hospitalized for more than 15 days. The study also demonstrated an association between malnutrition and longer hospital stays<sup>3</sup>.

Since then, these results have raised awareness among healthcare professionals, the government, and the public about the severity of this issue. However, after nearly two decades, a systematic review analysing the situation in Latin American countries, including Brazil, demonstrated a prevalence of malnutrition between 40% and 60% of patients at admission<sup>4</sup>. This number increases during hospitalization, and there is an association between disease-related malnutrition and increased infectious and non-infectious clinical complications, hospitalization time, and hospital costs<sup>4</sup>.

Thus, even though it is a problem affecting societies of different socioeconomic development levels, disease-related malnutrition still seems to be inadequately recognized. It is often underdiagnosed and untreated, leading to serious individual and collective consequences, such as increased complications, longer hospital stays, frequent readmissions, loss of functional and productive capacity, increased care costs, and higher mortality risk<sup>5-7</sup>.

In line with international efforts to reduce malnutrition rates and their impacts, in 2018, the Brazilian Society for Parenteral and Enteral Nutrition (SBNPE/BRASPEN) organized the campaign “Say no to malnutrition: 11 important steps to combat hospital malnutrition”. The aim, aligned with similar international actions, is to assist and ensure the early detection of hospital malnutrition, as well as appropriate interventions and monitoring. In summary, a mnemonic method of 11 steps was created, using an acronym with the word “DESNUTRIÇÃO” (malnutrition in Portuguese) (Box 1), including points such as procedures for identifying patients at risk of malnutrition at admission, diagnosing the presence of malnutrition through

nutritional assessment, planned nutritional intervention, and mechanisms for monitoring the patient’s response to the adopted intervention, while providing humanized and continuous support during hospitalization and after discharge<sup>2</sup>.

Box 1 – Mnemonic method for the 11 steps to combat malnutrition:	
<b>D</b>	Determine the risk and conduct a nutritional assessment
<b>E</b>	Establish caloric and protein needs
<b>S</b>	Know the weight loss and monitor the weight every 7 days
<b>N</b>	Do not neglect fasting
<b>U</b>	Use methods to assess and monitor the adequacy of ingested vs. estimated nutrition
<b>T</b>	Try to assess muscle mass and function
<b>R</b>	Rehabilitate and mobilize early
<b>I</b>	Implement at least two Quality Indicators
<b>Ç</b>	Ensure continuity of in-hospital care and record data in medical records
<b>Â</b>	Welcome and engage the patient and/or family members in the treatment
<b>O</b>	Provide hospital discharge instructions

Adapted from Toledo et al. (2018)

Despite SBNPE/BRASPEN’s efforts, it is still unclear to what extent the “Say no to malnutrition” campaign has been implemented in hospitals across Brazil. It is also unclear what the results have been in cases where implementation occurred. Therefore, it is important to conduct studies capable of evaluating the application of the 11 steps proposed by SBNPE/BRASPEN and identifying potential barriers to their adherence in clinical practice, especially from the perspective of the nutritionist, who is one of the professionals directly responsible for nutritional care<sup>8,9</sup>.

Thus, the objective of this study was to describe the scenario of the application of the mnemonic method of the 11 steps to combat malnutrition proposed by the “Say no to malnutrition” campaign, according to nutritionists.

## METHODS

This is an observational, cross-sectional, and descriptive study with primary data collection. Collection was conducted through an electronic form (Google Forms®) with a self-administered questionnaire developed by the researchers, containing questions aimed at addressing the study’s objective (Box 2). The questionnaire was available for responses between May and November of 2023.

**Box 2 – Questionnaire applied for the study**

**Campaign "Say no to malnutrition": the current scenario from the nutritionist's perspective**

**About you**

1. What is your age in complete years? \_\_\_\_\_
2. What is your gender?  
 Male     Female     I prefer not to say
3. In which CRN (Regional Council of Nutritionists) are you registered?  
 1     2     3     4     5     6     7     8     9     10     11
4. If your CRN is active, what is the number? \_\_\_\_\_
5. You work in a:
  - Public hospital
  - Private hospital
  - University or school hospital

**Regarding the situation of the campaign "Say no to malnutrition: 11 important steps to combat hospital malnutrition" in the unit or floor where you work**

6. D - *Determine the risk and conduct a nutritional assessment*  
 In the inpatient unit where you work, is nutritional screening conducted to assess risk?
  - Yes, nutritional screening is part of the admission routine for all patients
  - Yes, but we do not have a protocol to systematize the implementation of nutritional screening
  - We do not perform routine nutritional screening
7. D - *Determine the risk and conduct a nutritional assessment*  
 In the inpatient unit where you work, is there a protocol for implementing any method of nutritional assessment?
  - Yes, we conduct nutritional assessment for all patients
  - Yes, but we only conduct nutritional assessment for patients at nutritional risk
  - We do not perform routine nutritional assessment
8. E - *Establish the calories and protein needs*  
 In the inpatient unit where you work, are the caloric and protein needs of patients calculated?
  - Yes, we calculate for all patients
  - Yes, but we calculate only for patients at nutritional risk
  - We do not calculate calorie and protein goals
9. S - *Know the weight loss and monitor the weight every seven days*  
 In the inpatient unit where you work, do patients have their weight measured or estimated weekly?
  - Yes, all patients are weighed (or have their weight estimated) weekly
  - Yes, but only patients at nutritional risk are weighed (or have their weight estimated) weekly
  - We are unable to weigh or estimate the weight of patients weekly
10. N - *Do not neglect fasting*  
 In the inpatient unit where you work, is there a protocol for shortening surgical fasting?
  - Yes, and we have good adherence to the protocol
  - Yes, but we do not have good adherence to the protocol
  - We do not have a protocol
11. N - *Do not neglect fasting*  
 In the inpatient unit where you work, is there a protocol for shortening fasting for exams?
  - Yes, and we have good adherence to the protocol
  - Yes, but we do not have good adherence to the protocol
  - We do not have a protocol
12. U - *Use methods to assess and monitor the adequacy of ingested vs. estimated nutrition*  
 In the inpatient unit where you work, is there monitoring of calorie intake adequacy compared to estimated needs?
  - Yes, and we have a protocol for checking intake
  - Yes, but we do not have a protocol
  - We are unable to perform this monitoring

**Continuation Box 2 – Questionnaire applied for the study**

**Campaign "Say no to malnutrition": the current scenario from the nutritionist's perspective**

13. T – *Try to assess muscle mass and function*

In the inpatient unit where you work, is muscle mass evaluated using specific methods for this purpose?

Examples of methods for assessing muscle mass: adductor pollicis muscle thickness (APMT), calf circumference (CC), and bioelectrical impedance analysis (BIA).

- Yes, in all patients
- Yes, but only in patients at nutritional risk
- We do not perform specific assessment of muscle mass

14. T - *Try to assess muscle mass and function*

In the inpatient unit where you work, is muscle strength assessed using specific methods for this purpose?

Examples of methods for assessing muscle strength: hand grip strength or walking test.

- Yes, in all patients
- Yes, but only in patients at nutritional risk
  - We do not assess muscle strength

15. R - *Rehabilitate and mobilize early*

In the inpatient unit where you work, is early mobilization and rehabilitation of patients carried out?

- Yes, in all patients
- Yes, but only in patients at nutritional risk
- We do not have a protocol or program for early mobilization and rehabilitation

16. I - *Implement at least two Quality Indicators*

In the inpatient unit where you work, are quality indicators in nutritional therapy implemented?

- Yes, and they are good tools for managing monitoring and improving the quality of nutritional care provided
- Yes, but they are not used as tools for managing monitoring and improving the quality of nutritional care provided
- We do not have quality indicators in nutritional therapy implemented

17. Ç - *Ensure continuity of in-hospital care and record data in medical records*

In the inpatient unit where you work, are nutritional care-related information properly recorded in the medical records by the healthcare team?

- Yes, by all members of the healthcare team
- Yes, but not by all members of the healthcare team
- The information is not properly recorded, which hinders nutritional care

18. A - *Welcome and engage the patient and/or family members in the treatment*

In the inpatient unit where you work, is there empathetic and humanized care, understanding the needs of patients and their caregivers?

- Yes, patients and their families are well assisted by an institutional humanized care program
- There is no institutional humanized care program

19. O - *Provide hospital discharge instructions*

In the inpatient unit where you work, is there a discharge guidance protocol?

- Yes, there is a discharge guidance protocol that is carried out throughout the hospitalization period
- Yes, there is a discharge guidance protocol, but it is only carried out at the time of hospital discharge
- We do not have a discharge guidance protocol

20. In your opinion, the 11 steps to combat malnutrition proposed by BRASPEN/SBNPE are properly implemented at the inpatient unit where you work:

Totally disagree Totally agree  
 ( )1      ( )2      ( )3      ( )4      ( )5

The questionnaire was disseminated via the private social media of the researchers and instant electronic messaging applications (WhatsApp®), aiming to expand reach through peer sharing. Using social media to distribute academic research questionnaires and resorting to snowball sampling, a

non-probability sampling technique, are particularly effective strategies in cases where access to specific groups or niches is difficult. It should be noted that a non-probabilistic sample profile must be analysed with caution when interpreting the results derived from the sample<sup>10</sup>.

In accordance with the duties of the nutritionist defined by Resolution No. 600/2018 of the Federal Council of Nutrition (CFN), selected individuals included nutritionists with active registration in the Regional Council of Nutritionists (CRN) of the region of operation, of both genders, over 18 years old, currently working in clinical nutrition in public or private hospitals in Brazil, regardless of length of experience in the field, and who agreed to the Informed Consent Form (ICF).

Initially, to characterize the participants, the variables of interest were: CRN registration, gender, age, and type of hospital where they were employed (private, public, or university hospital). Subsequently, the instrument included 15 specific questions centred on the mnemonic of the 11 steps to combat malnutrition proposed by the "Say no to malnutrition" campaign<sup>2</sup> (Figure 2). Finally, a question was included following the Likert scale model<sup>11</sup>, with participants assigning scores from 1 to 5, where 1 indicated "the steps are not being implemented in my unit" and 5 indicated "the steps are fully implemented in my unit".

Descriptive variables characterizing the participants and the responses regarding the practice of SBNPE/BRASPEN guidelines are presented by simple frequency, with results expressed in absolute numbers and percentages. Age was presented by arithmetic mean and standard deviation.

The scores assigned by the nutritionists regarding the implementation of the campaign in their units were analysed using the quantitative approach that establishes the mean ranking (MR) of the scores assigned to the responses, relating them to the frequency of corresponding responses. Consequently, MR calculation was performed through the weighted average of the scores assigned by the nutritionists, divided by the total number of participants who answered the questionnaire. The calculated MR can range from 1 to 5, with higher values indicating greater agreement among participants. As an analytical reference, an MR less than 1.5 constitutes a level of "total disagreement", between 1.5 and 2.5 indicates "partial disagreement", between 2.5 and 3.5 indicates "indifference", between 3.5 and 4.5 indicates "partial agreement", and greater than 4.5 indicates "total agreement"<sup>11</sup>.

The project was developed following the ethical principles inherent to research involving human subjects, as determined by Resolution 466/12 of the National Health Council and was approved by the Research Ethics Committee (CoEP) of São Camilo University Centre, under substantiated opinion 6.070.064.

## RESULTS

In total, 75 nutritionists responded. However, nine did not provide their CRN number and were therefore excluded from the study. Consequently, 66 respondents were validated, predominantly female (95%), with an average age of  $29.89 \pm 6.18$  years (Table 1).

**Table 1** – Characteristics of the nutritionist responding to the electronic form.

Participants characteristics	n	%	Mean±SD
<b>Age (years)</b>			29.9 (± 6.18)
<b>Gender</b>			
Male	3	4.5	
Female	63	95.5	
<b>Regional Council of Nutritionists region</b>			
1	20	30.3	
3	40	60.6	
6	2	3.0	
7	1	1.5	
9	2	3.0	
11	1	1.5	
<b>Hospital where you act</b>			
Private	35	53	
Public	26	39	
University	5	8	

n = sample size; SD = standard deviation.

Regarding the application of the 11 steps (Table 2), it was observed that nutritional screening was conducted with an institutionalized protocol by 92.4% of the nutritionists, and by 7.6% without a protocol. For nutritional assessment, 60.6% reported evaluating all patients, while 37.8% evaluated only patients at nutritional risk (NR). Regarding the calculation of energy and protein requirements, 42.4% reported calculating for all patients, 51.5% only calculated for patients with NR, and 6.1% did not calculate any requirements. Weekly weight monitoring was performed by 59.1% for all patients, 15.2% for those at NR, and 25.8% did not monitor body weight. The protocol for shortening surgical fasting was well adhered to in 31.8% of the units where the nutritionists work, poorly adhered to in 42.4%, and 25.8% did not have any protocols. There was no protocol for shortening fasting for exams according to 48.5% of our sample, while 28.8% reported a low adherence, and only 22.7% reported good adherence. Caloric adequacy was monitored with a protocol by 53% of participants, 28.8% reported doing so without a protocol, and

18.2% did not monitor this parameter. Muscle mass assessment was performed by 22.7% for all patients, 53% only for those with NR, and 24.2% did not assess it. For muscle strength, 4.5% assessed all patients, 36.4% only those with NR, and 59.1% did not assess it. Early mobilization was performed for all patients by 31.3% of respondents, 23.4% for patients with NR, and 45.3% did not perform it. Quality indicators in nutritional therapy were reported to be implemented and considered as tools for quality management by 70.8%, 16.9% do not use the indicators as such tools, and

12.3% did not have indicators. Record-keeping in medical charts was reported to be done by the entire team in 71.2% of the sample, while 25.8% reported it was not done by the whole team, and only 3% did not record charts at all. Humanized care was institutionally practiced by 83.3% of respondents, while 16.7% do not have an institutional humanized care program. Finally, discharge instructions were provided with a protocol throughout hospitalization by 47% of participants, only at discharge by 39.4%, and 13.6% did not have a protocol.

**Table 2** – Answers to the self-administered questionnaire over hospital adherence to the 11 steps of the “Say no to malnutrition” campaign, according to nutritionists.

Questionnaire questions	n	%
<b>1. Nutritional screening and risk assessment</b>		
Nutritional screening for risk assessment is conducted and is part of the routine	61	92.4
Nutritional screening is conducted, but without a standardized protocol	5	7.6
<b>2. Protocol for nutritional assessment</b>		
Protocol for nutritional assessment in all patients	40	60.6
Protocol for nutritional assessment only in at-risk patients	25	37.8
No protocol for nutritional assessment	1	1.5
<b>3. Calories and protein needs</b>		
Calculation of energy-protein needs in all patients	28	42.4
Calculation of energy-protein needs only in at-risk patients	34	51.5
No calculation of energy and protein needs	4	6.1
<b>4. Weight measurement</b>		
Weekly weight measurement in all patients	39	59.1
Weekly weight measurement only in at-risk patients	10	15.2
No weekly weight measurement	17	25.8
<b>5. Abbreviation of surgical fasting</b>		
Protocol for abbreviation of surgical fasting with good adherence	21	31.8
Protocol for abbreviation of surgical fasting with poor adherence	28	42.4
No protocol for abbreviation of surgical fasting	17	25.8
<b>6. Abbreviation of exams fasting</b>		
Protocol for abbreviation of fasting for exams with good adherence	15	22.7
Protocol for abbreviation of fasting for exams with poor adherence	19	28.8
No protocol for abbreviation of fasting for exams	32	48.5
<b>7. Caloric adequacy monitoring</b>		
Monitoring of caloric adequacy with protocol	35	53.0
Monitoring of caloric adequacy without protocol	19	28.8
No monitoring of caloric adequacy	12	18.2

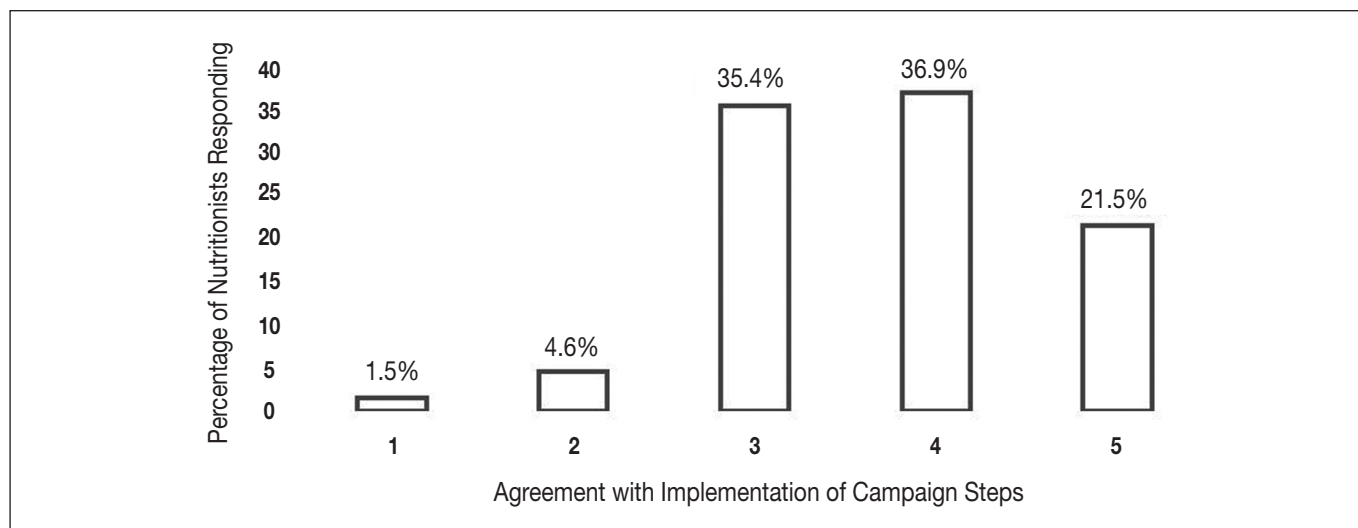
**Continuation Tabela 2** – Answers to the self-administered questionnaire over hospital adhesion to the 11 steps of the “Say no to malnutrition” campaign, according to nutritionists.

Questões do formulário	n	%
<b>8. Muscle mass assessment</b>		
Assessment of muscle mass in all patients	15	22.7
Assessment of muscle mass only in at-risk patients	35	53.0
No assessment of muscle mass	16	24.2
<b>9. Muscle strength assessment</b>		
Assessment of muscle strength in all patients	3	4.5
Assessment of muscle strength only in at-risk patients	24	36.4
No assessment of muscle strength	39	59.1
<b>10. Early mobilization and rehabilitation (n=64)!</b>		
Early mobilization and rehabilitation in all patients	20	31.3
Early mobilization and rehabilitation only in at-risk patients	15	23.4
No protocol or program for early mobilization and rehabilitation	29	45.3
<b>11. Quality indicators in Nutritional Therapy (n=65)!</b>		
Implementation of quality indicators and use as a monitoring management tool	46	70.8
Implementation of quality indicators without use as a monitoring management tool	11	16.9
No implementation of quality indicators	8	12.3
<b>12. Medical record</b>		
Record in medical records by the entire team	47	71.2
Record in medical records not performed by the entire team	17	25.8
Information not adequately recorded	2	3.0
<b>13. Humanized care</b>		
Institutional humanized care	55	83.3
No institutional humanized care program	11	16.7
<b>14. Discharge guidance</b>		
Protocol for discharge guidance throughout hospitalization	31	47.0
Protocol for discharge guidance only at discharge	26	39.4
No protocol for discharge guidance	9	13.6

n = sample size; ! = missing data. Where there were no data missing, n = 66.

It was found that eight of the 11 steps were implemented in total or partially, with or without a protocol, for all patients or those at NR. These steps included nutritional screening (92.4%) and assessment (98.4%), weekly weight monitoring (74.3%), calculation of needs (93.9%), adequacy monitoring (81.8%), record-keeping (97%), humanized care (83%), discharge instructions (86.4%), and application of quality indicators (87.7%). One step appears to be partially implemented, as muscle mass was

assessed by the majority (75.7%), but muscle strength was not (40,9%). There was a lack of or poor adherence to fasting protocols for surgeries (68.2%) and exams (77.3%) and a lack of early mobilization protocols (45.3%). From the overall perspective of the respondent nutritionists, on a scale of 1 to 5, the implementation of the 11 SBNPE/BRASPEN steps received a mean ranking of 3.66, indicating partial agreement regarding the implementation of the campaign steps (Figure 1)<sup>11</sup>.



**Figure 1** - Grade given towards the implementation of the 11 steps to combat malnutrition proposed by SBNPE/BRASPEN, according to nutritionists as to their unit. Numbers closer to 1 mean that steps were not implemented in the institutions, while numbers closer to 5 mean that steps were comprehensively implemented.

## DISCUSSION

The nutritionists who participated in this study had characteristics regarding sex and gender similar to the sociodemographic data from the latest survey available on the CFN<sup>12</sup> website, reinforcing the profile of the workers in question.

For the 66 nutritionists who participated in the survey, nutritional screening is a step that is already widely established in their practice, as there were no responses indicating the absence of routine nutritional screening. This is particularly important in combating malnutrition, as studies show that the application of nutritional screening in various clinical settings<sup>13-18</sup> can prevent poorer outcomes by identifying patients at NR. Since higher NR is positively correlated with greater morbidity and mortality, screening is a fundamental step in nutritional care to ensure early intervention<sup>13-16</sup>.

The Nutrition Care Process (NCP), proposed by the Academy of Nutrition and Dietetics (AND), the Brazilian Nutrition Association (ASBRAN), and the CFN<sup>19,20</sup> recommend an objective evaluation for at-risk patients or those referred to a nutritionist. This step of the campaign appears to be well implemented by the participants' units, considering that 60.6% conducted it for all patients and 37.8% conducted nutritional assessments for patients at NR. However, the data do not indicate when the nutritional assessment is performed or if periodic re-assessments are conducted. This is an important detail for future research, as studies show that malnutrition can worsen as hospitalization time progresses<sup>21-24</sup>.

Body weight is an important measure that can be used as a marker of nutritional status evolution, besides being used to estimate nutritional needs. Therefore, its weekly assessment is recommended by SBNPE/BRASPEN<sup>2</sup>. The

results of this survey show that more than half (74.3%) of the nutritionists reported measuring or estimating the weight of all patients or at-risk patients once a week. This supports SBNPE/BRASPEN's campaign. Weight monitoring should be conducted throughout the hospitalization period<sup>2</sup>, since this parameter not only for diagnosing nutritional status, but also for monitoring patients and planning nutritional interventions<sup>25,26</sup>.

Muscle mass and strength have been linked to low functionality at hospital discharge and survival rates<sup>27</sup>, justifying the importance of SBNPE/BRASPEN's campaign steps that address their evaluation and maintenance strategies, such as early mobilization. According to the participants, muscle mass was satisfactorily evaluated in all patients or those at NR. However, muscle strength was not assessed in 59.1% of the responses, and early mobilization/rehabilitation was not part of the protocol in 45.3%. This suggests that strength assessment and early mobilization need greater awareness among the healthcare team and hospital management. Complications related to malnutrition are linked to muscle function, making this an indispensable measure<sup>2</sup>. Rehabilitation and early mobilization have been shown to be safe, with low incidence of potential adverse events in patient management<sup>28</sup>, preventing acquired muscle weakness in intensive care patients<sup>29</sup> and causing effects for hospitalized adult patients, being able to be used as indicators of quality-of-life optimization<sup>30</sup>.

It is emphasized that, through the interpretation of the data obtained, nutritional assessment and monitoring are fundamental to appropriately plan and implement nutritional interventions early, minimizing complications associated with malnutrition<sup>31</sup>. Nutritional assessment is the foundation for



planning nutritional intervention, especially for patients under NR or with already diagnosed malnutrition<sup>19,20</sup>.

Planning satisfactory nutritional therapy requires estimating energy and protein needs and assessing food intake to analyse nutritional adequacy<sup>9</sup>. According to the participating nutritionists, the calculation of energy-protein requirements and the monitoring of caloric adequacy were performed for most patients, regardless of NR and protocol presence. These actions strengthen more individualized and adequate nutritional therapy, which has been shown to be efficient in reducing mortality risk and improving functional outcomes and quality of life for patients, for instance, especially for those who are critically ill or who are cancer patients, who have higher NR<sup>32,33</sup>.

It is known that nutritional inadequacy can be exacerbated by prolonged fasting periods for exams, procedures, and surgeries, increasing the patient NR<sup>2</sup>. In the view of the nutritionists who responded to this survey, in contrast to the other steps proposed by SBNPE/BRASPEN, there were absent or low adherence to protocols for shortening fasting times, both for surgery (68.2%) and for exams (77.3%). In its campaign, SBNPE/BRASPEN encourages the creation of a protocol and good adherence and suggests that it should be developed by each institution. These institutions can rely on existing literature, which already provides guidelines for the standardization of short fasting times, with positive results in combating hospital malnutrition and improving clinical outcomes without impacting readmission rates<sup>2,34,35</sup>. A prolonged post-operative fasting is positively associated with the development of paralytic ileus and increased length of stay, consequently resulting in higher hospital costs. Because of this, well-implemented and easily-adhered-to protocols can be extremely important in hospital units<sup>35</sup>. To ensure good adherence, good communication between the multidisciplinary team and other hospital sectors is necessary, so that agreed times are met, minimizing delays. Even in institutions that implement these guidelines, the lack of communication and attention from the healthcare team is one of the factors leading to poor patient recovery outcomes<sup>2,35</sup>.

The documentation or manner of writing in medical records can be determinant for the quality of work and communication among the team, reflecting positively or negatively on care outcomes<sup>2,19,20,36</sup>. Documentation in medical records by the entire team was conducted in approximately 70% of the hospital units where the respondent nutritionists work. Although this number can be considered very positive, it is understood that records that are not made or are poorly recorded can negatively contribute to information sharing and, therefore, affect auditing and management processes in nutritional care, which needs to be assumed as part of the individual's comprehensive care and is an interprofessional responsibility<sup>36,37</sup>.

In the study, 47% of nutritionists reported that the culture of hospital discharge guidance during hospitalization was standardized. However, some nutritionists (39.4%) reported it was performed only on the day of discharge or without a protocol (13.6%). The data suggest that most patients are guided at some point. However, it is necessary to encourage the practice throughout the individual's hospital stay, as patients, family members, and caregivers need to be aware of the importance of dietary care for nutritional therapy to continue at home<sup>2</sup>. A recent study<sup>38</sup> with elderly individuals demonstrated that discharge guidance combined with follow-up after discharge resulted in positive effects on nutritional status, quality of life, and functional capacity, although it did not show benefits in readmission rates.

The SBNPE/BRASPEN campaign recommends that the team welcome and engage the patient and/or family members in the treatment, warning them about the importance of humanized care<sup>2</sup>. When questioned about humanized care, over 80% of the professionals who responded to the survey believed that their institutions practiced humanized care. Humanization of healthcare involves aspects inherent to the human condition, such as providing well-being, being empathetic and kind in dealing with the diverse needs of others, and understanding the individual as a unique and irreplaceable being. According to a multidisciplinary team interviewed on the subject, the humanization of care requires teamwork and effective communication, and cannot be provided by just a few. In this sense, barriers such as work overload and inadequate working conditions arise<sup>39</sup>. Thus, even with the excellent reports from the nutritionists in this study, it is important for institutions to always be attentive to providing human and material conditions for the adequate and humanized provision of nutrition and health services.

Taking into account the adequacy of the services provided, one of the well-established instruments for evaluating and analysing the quality of nutritional care is the use of quality indicators<sup>2,19,20,36</sup>. In this survey, 70.8% of the nutritionists reported using indicators as a management monitoring tool, a result similar to that found in a previous study conducted with 57 hospitals, where 8% did not use any quality indicators, 75% used them for three to nine years, and 17%, for more than nine years<sup>36</sup>. From a more detailed analysis of the data, the same study concluded that, despite more than a decade since the publication of the first indicators, there still are challenges and difficulties for the broad implementation of these management mechanisms for nutritional therapy in hospital units. The main barrier lies in the selection of indicators that best represent results and critical analysis for potential improvements in institutional processes<sup>36</sup>.

Finally, analysing the responses of the nutritionists participating in this research in general, it is observed that there still are gaps for the broad and unrestricted implementation

of the 11 steps of the campaign. The mean ranking of 3.66 demonstrates partial agreement regarding the implementation of the campaign steps. As an example of alternatives to evaluate and improve the 11 steps among hospital units, a recent study analysed the compliance of oncology nutrition care with the guidelines of the campaign through an audit checklist and identify the level of adherence to the recommended requirements<sup>40</sup>. The study demonstrated that most of the campaign steps were adhered to by the hospital, either fully or partially, and that the proposed checklist can be a tool for audits and hospital accreditation, improving patient care, especially for those at risk or with already established malnutrition.

Regarding possible limitations of the present work, using social media to disseminate academic research questionnaires seems to be particularly effective when there is difficulty accessing specific groups, just as the snowball strategy can be effective for achieving sample breadth. However, caution is needed in the conclusions derived from these tactics<sup>10</sup>, especially when there is no numerical representativeness. In this context, the importance of a greater range of participants is emphasized, recognizing the diversity of realities in different regions of the country, in public and private services. A deeper and greater detailing of the questions asked can help identify possible barriers found by nutritionists and other professionals involved in nutritional care. This study only included the responses of nutritionists, solely reflecting the perspective of this group over hospitals' adherence to the campaign. Future studies can include other healthcare professionals from the multidisciplinary nutritional therapy team (MNTT). Another limitation is the lack of knowledge about the number of beds in each hospital where the nutritionists worked, as well as whether or not there was a MNTT.

## CONCLUSION

In the view of the participating nutritionists, there is a scenario of partial agreement in the implementation of the campaign steps. Most of the steps of the "Say no to malnutrition" campaign have been applied in practice, with positive responses for all patients, or at least for those at NR, with or without a defined protocol. However, "fasting abbreviation protocols," "muscle strength assessment," and "early mobilization" seem to be actions that still need operational strategies to be strengthened in the routine of hospital units, so that NR is mitigated and the campaign's implementation is expanded.

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