

CUIDADO É FUNDAMENTAL

Escola de Enfermagem Alfredo Pinto – UNIRIO

RESEARCH

DOI: 10.9789/2175-5361.rpcfo.v15.11750

OCCUPATIONAL STRESS IN NUTRITIONISTS WORKING IN THE ÁREA OF COLLECTIVE FOOD

*Estresse ocupacional em nutricionistas atuantes na área de alimentação coletiva**Estrés laboral em nutricionistas que trabajan en el área de alimentación colectiva***Roberta Soares Casaes¹** **Barbara Rodrigues Pereira²** **Paulo Sergio Marcellini³** **Danielle de Araujo Pires³** **Guilherme Voelcker Ade³** **Yoko Ametista Carvalho Suede Matos³** 

ABSTRACT

Objective: to identify the level of occupational stress of nutritionists working in collective feeding. **Method:** cross-sectional and quantitative study carried out with nutritionists in the área of collective feeding, of both sex. Data were obtained through the application of an online questionnaire, self-completed by the volunteer. **Results:** moderate and high levels of stress were found in the nutritionists studied. These results are worrying, requiring actions combined with prevention programs. The main stressors are: deficiency in training and little prospect of career growth. The stress variable showed a statistical association with the child variables ($p=0.0152$) and monthly income ($p=0.0387$). **Conclusion:** it becomes essential to consolidate intervention actions aimed at preventing and minimizing this result, through guidance actions in the training process when joining the organization as well as in the development of coping skills.

DESCRIPTORS: Working environment; Occupational health; Occupational exposure; Occupational risks; Health promotion.

¹ Instituto de Alimentação e Nutrição do Centro Multidisciplinar de Macaé da Universidade Federal do Rio de Janeiro, Macaé, Rio de Janeiro, Brazil

² Universidade Federal do Rio de Janeiro, Macaé, Rio de Janeiro, Brazil

³ Universidade Federal do estado do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil

Received: 03/02/2022; Accepted: 08/23/2022; Published online: 03/10/2023

Corresponding Author: Roberta Soares Casaes, E-mail: betacasas@gmail.com

How cited: Casaes RS, Pereira BR, Marcellini PS, Pires DA, Ade GV, Matos YACS. Occupational Stress in Nutritionists working in the área of collective food. *R Pesq Cuid Fundam* [Internet]. 2023 [cited year month day];15:e11750. Available from: <https://doi.org/10.9789/2175-5361.rpcfo.v15.11750>



RESUMO

Objetivo: identificar o nível de estresse ocupacional de nutricionistas atuantes na alimentação coletiva. **Método:** estudo transversal e quantitativo realizado com nutricionistas da área de alimentação coletiva, de ambos os sexos. Os dados foram obtidos por meio da aplicação de questionário online, auto preenchido pelo voluntário. **Resultados:** verificou-se nível moderado e alto de estresse nos nutricionistas estudados. Esses resultados são preocupantes, sendo necessário ações aliadas a programas de prevenção. Os principais estressores são: deficiência nos treinamentos e pouca perspectiva de crescimento na carreira. A variável estresse apresentou associação estatística com as variáveis filhos ($p=0,0152$) e renda mensal ($p=0,0387$). **Conclusão:** torna-se fundamental consolidar ações de intervenções visando prevenir e minimizar tal resultado, por meio de ações de orientação no processo de formação ao ingressar na organização bem como no desenvolvimento de habilidades de enfrentamento.

DESCRITORES: Ambiente de trabalho; Saúde do trabalhador; Exposição ocupacional; Riscos ocupacionais; Promoção da saúde.

RESUMEN

Objetivo: identificar el nivel de estrés laboral de nutricionistas que trabajan en alimentación colectiva. **Método:** estudio transversal y cuantitativo realizado con nutricionistas del área de alimentación colectiva, de ambos sexos. Los datos se obtuvieron mediante la aplicación de un cuestionario en línea, autocompletado por el voluntario. **Resultados:** se encontraron niveles moderados y altos de estrés en los nutricionistas estudiados. Estos resultados son preocupantes, requiriendo acciones combinadas con programas de prevención. Los principales factores de estrés son: deficiencia en la formación y pocas perspectivas de crecimiento profesional. La variable estrés mostro asociación estadística con las variables hijo ($p=0,0152$) e ingreso mensual ($p=0,0387$). **Conclusión:** se hace imprescindible consolidar acciones de intervención encaminadas a prevenir y minimizar este resultado, a través de acciones de orientación en el proceso de formación al ingreso a la organización así como en el desarrollo de habilidades de afrontamiento.

DESCRIPTORES: Ambiente de trabajo; Salud laboral; Exposición profesional; Riesgos laborales; Promoción de la salud.

INTRODUCTION

The professional activity is influenced by several factors, such as physical, psychological, family, social, which can have consequences. The technologies, the work rhythm, the pressure for results, the relationships among the team, the affectivity or lack of it, and the work structure are some of the aspects that directly affect people in the labor field.¹

The movement of workers' health care is inherent to the growing illness of this part of the population, which includes those who take care of the health of individuals, such as nutritionists. These workers who strive to direct their gaze towards the care of others, sometimes forget to pay attention to their own health, as well as to the conditions of their work environment.²⁻³

One of the nutritionists' areas of activity is collective feeding (CA), concentrating about 30.8% of nutritionists in exercise in the country.⁴ The growth and consolidation of CA was mainly due to the globalization process that generated changes in lifestyle, eating habits and the time available for meals, causing individuals to be increasingly encouraged to consume foods outside your home.⁵⁻⁶

Nutritionists working in this area, in addition to performing their technical role, are also required to have administrative and managerial skills and, given the constant demand for results, the nutritionist's role goes beyond administrative issues, being interspersed with emotion and the ability to promote health. of people. As a result of this breadth of functions attributed to the nutritionist-manager, the burden of responsibility is very high, which may contribute to a greater risk of exposure of this group

to occupational stress, with possible implications for the quality of life at work.⁷⁻⁸

In recent years, in the field of work, the attention of researchers has turned to the issue of stress in the work environment and the health of workers. Stress develops as a factor or co-factor for various health problems, such as cardiovascular disease, cancer, diabetes, bacterial and viral infections and depression, associated with increased medical care costs and a high rate of absenteeism from work. In this way, it causes physical, psychological, social and cultural damage that are directly reflected in the lives of workers, causing an impact on their daily lives and their quality of life.⁹

The objective of the present study was to evaluate the level of occupational stress of nutritionists working in the area of collective feeding in the Brazilian territory.

METHOD

This is a cross-sectional and quantitative study carried out in an online format. The study population consisted of nutritionists working in the area of CA, within the Brazilian territory.

The following inclusion criteria were established: being a nutritionist working in the area of collective feeding, of both sexes and duly registered with the Council of their region. As exclusion criteria, nutritionists working in other areas and pregnant women.

Data collection took place from January to April 2021, through the application of a questionnaire developed by the "Google Forms" tool and self-filled by the volunteer. Recruitment was carried out by sharing the questionnaire link made on the Google forms platform and it was sent via email, through the social networks "WhatsApp", "facebook" and "Instagram", in groups

and specific channels of nutritionists and professionals. to class entities for sharing and dissemination in their communication and dissemination channels.

For the assessment of occupational stress, the short version of the Work Stress Scale (EET)¹⁰ was used, consisting of 13 questions referring to situations related to the work environment. Each participant marked the option that best corresponded to their answer, considering a five-point *Likert* scale: 1 (strongly disagree), 2 (disagree), 3 (somewhat agree), 4 (agree) and 5 (strongly agree).

To identify the stress levels resulting from each individual's response, data were categorized, taking into account the calculation of the sum of the individuals' responses in relation to the five-point *Likert* scale used in the instrument. It is emphasized that in this study, the methodology for standardization of scores was used,¹ according to the formula below.

$$EP = \left[\frac{\sum PV - Pmin}{PMax - Pmin} \right] \times 100$$

Where:

EP = Standard Score

$\sum PV$ = Sum of valid points

Pmin: Minimum score of the sum of responses

Pmax: Maximum score of the sum of responses

After standardizing the scores,¹ the results were classified into three distinct categories that represent the level of stress in the evaluated nutritionists: low (0 to 33.33%), moderate (33.34% to 66.66%) and high (66.67% to 100%).

The data were tabulated in the Excel® version 2016 program. They were presented by descriptive statistics using percentages, mean and standard deviation. Data were analyzed using Epi Info 2002 software (CDC, 2002). The chi square test $p < 0.05$ was used for statistical significance.

This study was approved by the Research Ethics Committee of the Federal University of Rio de Janeiro – Campus Macaé, opinion number: 4,498,208, CAAE: 9723920.8.0000.5699, thus complying with the ethical recommendations of Resolution 466/2012.

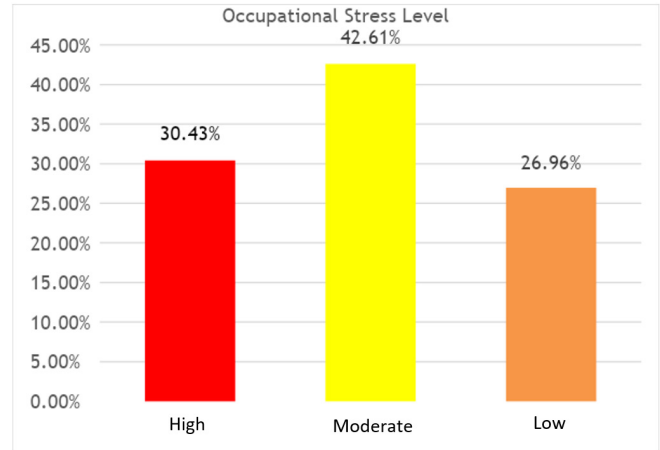
RESULTS

A total of 118 nutritionists participated in the research, three of whom were excluded from the study because they did not meet the inclusion criteria. The final sample had 115 nutritionists who worked in the area of CA, among these 112 (97.39%) were female, 52 were aged between 31 and 40 years (45.22%), 69 (60%) were white, 57 (49.56%) declared themselves to be married, 61 (53.04%) reported not having children, 53 (46.09%) reported monthly income in the range of one to three minimum wages, 92 (80%) worked in the CLT regime and 66 (57.39%) belonged to the Southeast region.

When evaluating the level of occupational stress in the population studied by analyzing the TSE assessment, it was observed that 49 nutritionists were classified as having a moderate level

of stress (with a standard score (SE) of 42.61%), 35 with a high level of stress (SE of 30.43%) and 31 with a low level of stress (SE of 26.96%), as shown in Figure 1.

Figure 1 – Level of occupational stress of the research participant group. Rio de Janeiro, RJ, Brazil, 2021



Source: Prepared by the authors, December, 2021.

Table 1 presents the percentage of individual occupational stress levels obtained for each nutritionist participating in the study.

Regarding the stressors, according to the scores of the EET instrument questions, according to the results presented in table 1, the question with the lowest score (286 points) was 3: 'I have been uncomfortable with my superior's lack of confidence in my work', which leads to the conclusion that most nutritionists have a trusting relationship with their immediate superior, demonstrating autonomy and acceptance by their superiors, not being a stressor in the work environment. The questions with the highest scores were 6 (412 points): "I have been uncomfortable with the lack of training for professional qualification." and to 9 (405 points): "The few prospects for career growth have left me distressed", these being considered stressing variables.

When performing the statistical association of the variable occupational stress level with the variables gender, marital status, monthly income, children, position, BMI and hours worked, it was observed that the variables gender, marital status, position, IMC and hours worked did not present statistically significant association ($p < 0.05$) with the level of occupational stress, highlighting the statistically significant association between monthly income ($p = 0.0387$) and children ($p = 0.0152$), as shown in Table 2.

On the other hand, although the children variable showed a statistically significant association with the stress variable, the fact of not having children resulted in a higher level of stress (moderate/high), as shown in Table 2.

DISCUSSION

It was observed in the present study that the majority (42.61%) of the surveyed nutritionists had a moderate level of occupa-

Table 1 – Individual occupational stress level of the evaluated nutritionists. Rio de Janeiro, RJ, Brazil, 2021

SCORE		SCORE		SCORE		SCORE		SCORE	
VOLUNTARY	LEVEL OF	VOLUNTARY	LEVEL OF	VOLUNTARY	LEVEL OF	VOLUNTARY	LEVEL OF	VOLUNTARY	LEVEL OF
	STRESS (%)		STRESS (%)		STRESS (%)		STRESS (%)		STRESS (%)
1	69.23	24	65.38	47	40.38	70	55.77	93	67.31
2	94.23	25	40.38	48	40.38	71	28.85	94	7.69
3	38.46	26	59.62	49	36.54	72	78.85	95	17.31
4	80.77	27	59.62	50	32.69	73	32.69	96	71.15
5	36.54	28	28.85	51	61.54	74	67.31	97	90.38
6	55.77	29	90.38	52	32.69	75	38.46	98	73.08
7	63.46	30	38.46	53	7.69	76	61.54	99	61.54
8	76.92	31	65.38	54	78.85	77	84.62	100	44.23
9	78.85	32	17.31	55	67.31	78	23.08	101	5.77
10	71.15	33	71.15	56	71.15	79	3.86	102	25
11	46.15	34	55.77	57	73.08	80	53.85	103	15.38
12	19.23	35	51.92	58	11.54	81	28.85	104	19.23
13	90.38	36	92.31	59	15.38	82	71.15	105	51.92
14	13.46	37	32.69	60	25	83	59.62	106	61.54
15	55.77	38	57.69	61	51.92	84	28.85	107	57.69
16	26.92	39	53.85	62	90.38	85	42.31	108	26.92
17	28.85	40	59.62	63	67.31	86	96.15	109	28.85
18	67.31	41	100	64	61.54	87	75	110	38.46
19	46.15	42	73.08	65	50	88	88.46	111	44.23
20	36.54	43	78.85	66	78.85	89	88.46	112	65.38
21	42.31	44	69.23	67	61.54	90	3.85	113	36.54
22	28.85	45	50	68	59.62	91	50	114	28.85
23	51.92	46	63.46	69	21.15	92	9.62	115	82.69

Source: Prepared by the authors, December, 2021.

Subtitle: Green: Low stress level. Yellow: moderate stress level. Red: high stress level.

Table 1 – Score obtained from the TSE questions of the nutritionists studied. Rio de Janeiro, RJ, Brazil, 2021

QUESTIONS	ΣEP achieved
1. The way tasks are distributed in my area has made me nervous.	370
2. The lack of autonomy in the execution of my work has been exhausting.	349
3. I have been bothered by my superior's lack of confidence in my work.	286
4. I am irritated by the lack of disclosure of information about organizational decisions.	376
5. I feel uncomfortable having to perform tasks that are beyond my ability.	375
6. I have been uncomfortable with the deficiency in training for professional qualification.	412
7. I get in a bad mood because I feel isolated in the organization.	312
8. It irritates me that I am undervalued by my superiors.	385
9. The few prospects for career growth have left me distressed.	405
10. I have been uncomfortable working on tasks below my skill level.	338
11. The competition in my work environment has me in a bad mood.	291
12. The lack of understanding of my responsibilities in this job has irritated me.	311
13. The time is insufficient to carry out my volume of work making me nervous.	365

Source: Prepared by the authors, December, 2021.

Subtitle: Green: Lowest scoring question; Red: Highest scoring question;

Yellow: Second highest scoring question

Table 2 – Association of the stress level variable with the variables marital status, monthly income, children, position, BMI and hours worked. Rio de Janeiro, RJ, Brazil, 2021

Variables	Stress Level			P*
	LOW n (%)	MEDIUM n (%)	HIGH n (%)	
Sex				0.4266
Feminine	37 (32.17)	40 (34.78)	35 (30.43)	
Male	1 (0.87)	2 (1.74)	0	
Marital status				0.0912
Single	12 (10.43)	19 (16.52)	18 (15.65)	
Married	23 (20)	19 (16.52)	15 (13.04)	
Divorced	3 (2.61)	4 (3.48)	0	
Widower	0	0	2 (1.74)	
Monthly income				0.0387
Up to 3 minimum wages	10 (8.70)	23 (20)	21 (18.26)	
> 3 minimum wages	26 (22.61)	17 (14.78)	13 (11.30)	
I prefer not to answer	2 (1.74)	2 (1.74)	1 (0.87)	
Children				0.0152
Yes	25 (21.74)	17 (14.78)	12 (10.43)	
No	13 (11.30)	25 (21.74)	23 (20)	
Office				0.2004
managerial	21 (18.26)	16 (13.91)	13 (11.30)	
Non-Management	17 (14.78)	26 (22.61)	22 (19.13)	
IMC				0.5317
eutrophy	18 (15.65)	20 (17.39)	12 (10.43)	
overweight	12 (10.43)	10 (8.70)	11 (9.57)	
obesity 1	6 (5.22)	7 (6.09)	8 (6.96)	
obesity 2	2 (1.74)	3 (2.61)	3 (2.61)	
obesity 3	0	1 (0.87)	0	
Low weight	0	1 (0.87)	1 (0.87)	
Worked hours				0.6258
up to 8 hours	14 (12.17)	12 (10.43)	10 (8.70)	

Table 2 – Cont.

8-10 hours	16 (13.91)	21(18,26)	13 (11.30)
10-12 hours	5 (4.35)	6 (5.22)	10 (8.70)
over 12 hours	3 (2.61)	3 (2.61)	2 (1.74)

Source: Prepared by the authors, December, 2021.
Chi square test – $p^* < 0.05$

tional stress, showing an increased risk for the development of occupational diseases. Occupational stress results from the worker's perception that the work environment is threatening to his physical and/or mental health, because he believes that this environment has excessive demands or because he himself does not have enough resources to face them.¹¹

This finding differs from that found in the study which evaluated the level of occupational stress in managerial nutritionists, where he observed the level of stress as low (EP= 29.8%), which may represent that, despite the management area being one of the triggering factors for the emergence of stress, the responses demonstrated, in part, an adaptation to the overload and peculiarities inherent to the function.¹²

Stress is caused as a physical and psychological response to everything a person feels, such as demands and excessive pressure, occurring when a person is overloaded and can trigger stress-related syndromes such as fatigue, depression, panic syndrome, *Burnout* and somatization, bringing consequences such as financial expenses to institutions, with medical care, absences, absenteeism/turnover, reduced effectiveness of operators and work accidents, suggesting the importance of actions aimed at workers' health.¹³ In fact, *Burnout Syndrome* (BS) also known as Professional Burnout Syndrome was recognized as an occupational disease, entering the 11th revision of the International Classification of Diseases (ICD-11).¹⁴

The propensity of health professionals to BS is well documented, especially those who work in complex and intense environments, being very common to affect professionals linked to managerial positions. It is usually caused by physical and emotional exhaustion, generating excessive tiredness and prolonged stress in the work environment.^{11,15}

As for the stressors, the results found in the research corroborate those found in the study that evaluated the level of stress in nutritionists who manage CA units, having identified the same questions with higher and lower scores.¹²

The higher the average of a stressor, the more it interferes with the increase in the individual's stress level. The lack of training and consequent devaluation in the work environment, combined with the lack of career growth prospects, end up being factors that generate stress in professionals, being very important points that deserve more attention from superiors, with the primary objective of improving the relationship between the organization and the employee. It is noteworthy that behaviors that begin in the training process when joining the company must be implemented, focusing on self-efficacy and the development of coping skills, which may include prevention programs addressing the causes and consequences of dissatisfaction with the work environment.¹

Study carried out on quality of work life and stress level of primary care professionals, observed that professionals who are not satisfied with their work had a perceived stress score that was 94.0% higher than those who are satisfied. Professionals satisfied with their work had lower levels of stress, representing a relevant protection factor in the work context. In addition, they reported that high levels of stress increased the chance of professionals developing BS.¹⁶

It was observed, in this study, that nutritionists without children had a higher level of stress (moderate/high), a fact that can lead to the conclusion that these professionals are more likely to dedicate themselves to their jobs for a longer period of time. The result for the high level of stress can also be due to these professionals not feeling fully fulfilled in all aspects of their lives, leading them to an emotional drain.

Another important point to consider and which may have been a trigger of increased stress is the fact that the survey was carried out during the COVID-19 pandemic period, where the population was in social isolation, working in the *home-office* system and possibly many were without a direct family bond, spending more time alone and isolated, also experiencing emotional isolation, in addition to fears and other mental health problems caused by COVID-19. It is also worth noting that for nutritionists who had children, in this intense period of the pandemic, face-to-face classes were suspended, with children staying at home full time.⁸

A study carried out with health professionals in the state of Bahia highlighted that the high domestic burden was associated with a negative self-assessment of the state of, since the accumulation of activities performed by the woman may be interfering with her professional domain, causing her to perceive fewer positive aspects and organizational attitudes of health work, contributing to a lower QVT in the professional domain.¹⁶

In relation to monthly income and association with stress level, it is important to note that a low salary income is a triggering factor for stress, even more so in the case of professionals with higher education. In the sample of the present study, 62.7% (n=74) had a specialization/MBA, 15.2% (n=18) had a *stricto sensu* graduate degree.

Studies have shown that low pay is the main cause of professional dissatisfaction, even more related to professionals with higher education, which was found in the present study, where 77.9% (n=92) of the sample also had a graduate degree. It is also worth noting that the relationship between job satisfaction and income can often be related not only to the salary itself, but also to the position held by the professional.¹⁷⁻¹⁸

In a survey carried out with teachers, low salaries and professional devaluation were considered a source of stress, generating financial instability and causing illness to professionals.⁹ By analyzing the data of the present study, most professionals who received up to three minimum wages had a moderate/high stress level.

It is also important to consider that family income was greatly impacted during the COVID-19 pandemic, with a variation in spending of 10.38% from January 2021 to January 2022.¹⁹

It is worth mentioning that although there was no significant association between the variables hours worked and stress level, it was found that 68.70% of the nutritionists surveyed reported exceeding 44 hours per week. These data corroborate those found in the study where the satisfaction of nutritionists who work in collective feeding was evaluated, where they observed that 27.31% of nutritionists worked more than 40 hours a week.¹⁸

It is noteworthy that the nutritionist within the food unit ends up performing administrative functions that demand time, to the detriment of other activities, which can end up triggering an excess of overtime performed by these professionals. Among the nutritionists studied, 65 (56.52%) held a managerial position, but stress levels were higher in those working in a non-management role.²⁰

Although in the literature a lot has been studied and an association between the influence of stress on weight gain has been observed, in the present study this association was not detected.²¹ In the last 20 years, studies on the association between BMI and stress have been more frequent, however, it is still a controversial topic, requiring specific studies to obtain this relationship.²²

Satisfying basic needs, social support, communication, clear assignment of tasks, flexible working hours and the use of psychosocial and psychological help without stigmatization seem to be particularly important measures in reducing emotional stress, which professionals of health are subjected.²³ Therefore, several aspects in the work environment in the different professional categories generate health problems, which trigger the disruption of the professional in the daily work, which, in most cases, does not offer psychosocial support to the worker.⁹

CONCLUSION

The results found in the present research indicated that nutritionists had a moderate level of occupational stress. These results are worrisome and prompt reflection on the possible consequences arising from moderate and high levels of stress. By identifying the main stressors that demonstrated to trigger the increase in the level of stress, it was possible to define the points that deserve special attention from superiors: deficiency in training and little prospect of growth in the professional nutritionist's career. The variable income and children had a statistical association with the level of occupational stress.

With these results, it is suggested that interventions be carried out to prevent and minimize this result, through guidance

actions in the training process when joining the organization, focusing on self-efficacy and the development of coping skills.

It is also essential to develop health promotion actions, based on the identification of risk factors, addressing the causes and consequences resulting from occupational stress.

REFERENCES

1. de Almeida DM, Ibdaiwi TKR, Lopes LFD, Costa VMF, Possamai LO. Estresse ocupacional na perspectiva dos bombeiros da cidade de Santa Maria/RS. *ReCaPe*. [Internet]. 2015 [acesso em 11 de março 2021];5(1). Disponível em: <https://revistas.pucsp.br/ReCaPe/article/view/23322>.
2. Gomes MLP, da Silva JCB, Batista EC. Escutando quem cuida: quando o cuidado afeta a saúde do cuidador em saúde mental. *Rev. Psicol. Saúde*. [Internet]. 2017 [acesso em 21 de setembro 2021];10(1). Disponível em: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S2177-093X2018000100001.
3. Dantas AAG, de Oliveira NPD, Silva M de F dos S, Dantas D de S. Condições de saúde e estado nutricional de agentes comunitários de saúde no interior do nordeste brasileiro. *Rev. Ciênc. Plural* [Internet]. 2020 [acesso em 24 de fevereiro 2022];6(1). Disponível em: <https://periodicos.ufrn.br/rcp/article/view/17157>.
4. Conselho Federal De Nutricionistas (Brasil). Perfil das (os) nutricionistas no Brasil. Dados do terceiro trimestre de 2021. [Internet]. 2021 [acesso em 10 de novembro 2021]. Disponível em: <http://pesquisa.cfn.org.br/>
5. Chamberlem SR, Kinasz TR, Campos MPFF. Resíduos orgânicos em unidades de alimentação e nutrição. *Alimentos e Nutrição Araraquara*. [Internet]. 2012 [acesso em 02 de novembro 2021];23(2). Disponível em: <http://200.145.71.150/seer/index.php/alimentos/article/viewArticle/2039>.
6. Feitosa K da S, Luz L de S, de Oliveira ES, de Oliveira VA, Sampaio JPM, Teixeira SA. Caracterização dos atributos relacionados à satisfação com os serviços prestados por uma UAN Institucional: Modelo Kano. *DEMETERA: Alimentação, Nutrição & Saúde*. [Internet]. 2019 [acesso em 01 de novembro 2021];14. Disponível em: <https://www.e-publicacoes.uerj.br/index.php/demetra/article/view/37662>.
7. Dariva R, OH A. Atuação do nutricionista líder em unidade de alimentação e nutrição no segmento de refeições transportadas para penitenciárias em Curitiba – PR e região metropolitana. *Administração de Empresas em Revista*. [Internet]. 2013 [acesso em 14 de março 2021];1(8). Disponível em: <http://revista.unicuritiba.edu.br/index.php/admrevista/article/view/707>.
8. Casaes RS, Pereira BR, Marcellini PS, Pires D de A, Ade GV, Matos YACS. The use of scientific knowledge

- in the area of Nutrition for PODCAST information and communication technology (ICT). RSD. [Internet]. 2021 [cited 2022 feb 13];10(13):e597101321563. Available from: <https://rsdjournal.org/index.php/rsd/article/view/21563>.
9. Silva DP, Silva MNRM. O. O trabalhador com estresse e intervenções para o cuidado em saúde. *Trab. educ. saúde*. [Internet]. 2015 [acesso em 22 de setembro 2021];13(1). Disponível em: <https://www.scielo.br/j/tes/a/QRrvZhMPtdz4bMGrJHSZbxt/?lang=pt&format=html&stop=next>.
 10. Paschoal T, Tamayo A. Validação da escala de estresse no trabalho. *Estud. psicol.* [Internet]. 2004 [acesso em 20 de outubro 2020];9(1). Disponível em: <https://doi.org/10.1590/S1413-294X2004000100006>.
 11. Perniciotti P, Júnior CVS, Guarita RV, Morales RJ, Romano BW. Síndrome de Burnout nos profissionais de saúde: atualização sobre definições, fatores de risco e estratégias de prevenção. *Revista da SBPH* [Internet]. 2020 [acesso em 12 de novembro 2021];23. Disponível em: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-08582020000100005.
 12. Araújo LRG. Avaliação da qualidade de vida no trabalho e nível de estresse dos nutricionistas gestores de unidades de alimentação coletiva [Graduação em Nutrição]. Campo Grande (Brasil): Universidade Federal de Campina Grande; 2018. [acesso em 10 de agosto 2020]. Disponível em: <http://dspace.sti.ufcg.edu.br:8080/jspui/handle/riufcg/7079>.
 13. Schirrmeister R, Limongi-França AC. A qualidade de vida no trabalho: relações com o comprometimento organizacional nas equipes multicontratuais. *Rev. Psicol., Organ. Trab.* [internet]. 2012 [acesso em 21 abr 2021];12(3). Disponível em: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1984-66572012000300004.
 14. Organização Pan-Americana da Saúde (OPAS). Versão final da nova Classificação Internacional de Doenças da OMS (CID-11). [Internet]. 2022 [acesso em 26 de fevereiro 2022]. Disponível em: <https://www.paho.org/pt/noticias/11-2-2022-versao-final-da-nova-classificacao-internacional-doencas-da-oms-cid-11-e>.
 15. Silveira ALPD, Colleta TCD, Ono HRB, Woitas LR, Soares SH, Andrade VLA, Araújo LD. Síndrome de Burnout: consequências e implicações de uma realidade cada vez mais prevalente na vida dos profissionais de saúde. *Rev. Bras. Med. Trab.* [Internet]. 2016 [acesso em 12 de março 2021];14(3). Disponível em: <https://cdn.publisher.gn1.link/rbmt.org.br/pdf/v14n3a13.pdf>.
 16. Lima GKMD, Gomes LMX, Barbosa T LDA. Quality of Working Life and stress level of professionals in Primary Health Care. *Saúde em Debate*. [Internet]. 2020 [cited 2021 jun 21];44(126). Available from: <https://www.scielo.br/j/sdeb/a/M76C5zvrQZ8xxshvZ3f6rmp/abstract/?format=html&lang=en>.
 17. De Souza JCN, Fagundes AA., Da Silva DG, Barbosa KBF. Formação, satisfação e perspectivas profissionais de egressos nutricionistas de uma universidade federal do nordeste brasileiro. *DEMETERA: Alimentação, Nutrição & Saúde*. [Internet]. 2018 [acesso em 30 de novembro 2021];13(1). Disponível em: <https://www.e-publicacoes.uerj.br/index.php/demetra/article/view/28602>.
 18. Costa RL, Stangarlin-Fiori L, Bertin RL, Medeiros CO. Satisfaction of nutritionists who work in food service. *Rev. Nutr.* [Internet]. 2019 [cited 2021 nov 2021];32. Available from: <https://doi.org/10.1590/1678-9865201932e180168>.
 19. Instituto Brasileiro de Geografia e Estatística [homepage na internet]. Inflação [acesso em 26 fev 2022]. Disponível em: <https://www.ibge.gov.br/explica/inflacao.php>.
 20. Rocha GG, Miyagi AMC, Guimarães LIG, Cardoso VDL, Matias ACG, Spinelli MGN, Abreu ES. Caracterização de Nutricionistas de unidades de alimentação e nutrição terceirizadas: dados demográficos, perfil de atuação e percepção de bem estar. *Rev. Simbio-Logias* [Internet]. 2017 [acesso em 15 de maio 2021];9(12). Disponível em: https://www1.ibb.unesp.br/Home/Departamentos/Educacao/Simbio-Logias/revistas/caracterizacao_de_nutricionistas_de_unidade.pdf.
 21. Do Nascimento IB, Fleig R, Silva JC. Relação entre obesidade e estresse no ambiente ocupacional: fundamentos sobre causas e consequências. *Revista Brasileira de Qualidade de Vida*. [Internet]. 2016 [acesso em 22 nov 2021];8(40). Disponível em: <https://doi.org/10.3895/rbqv.v8n4.5127>.
 22. Urbanetto JD, Rocha OS, Dutra RC, Maciel, MC, bandeira AG, Magnago TS. Estresse e sobrepeso/obesidade em estudantes de enfermagem. *Revista Latino-Americana de Enfermagem*. [Internet]. 2019 [acesso em 21 nov 2021];27:e3177. Disponível em: <https://doi.org/10.1590/1518-8345.2966.3177>.
 23. Petzold MB, Plag J, Ströhle A. Dealing with psychological distress by healthcare professionals during the COVID-19 pandemia. *Nervenarzt*. [Internet]. 2020 [cited 2021 nov 21];91(5). Available from: <https://pubmed.ncbi.nlm.nih.gov/32221635/>.