

COPING STRATEGIES ADOPTED BY NURSING PROFESSIONALS DURING THE COVID-19 PANDEMIC¹

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1. * This study is part of a Scientific Initiation entitled "Stress Factors and Coping Strategies of Nursing Professionals in Combating COVID-19" by PUC/SP.

Abstract: With the advent of COVID-19, the nursing team had to adopt some resources to face this pandemic. **Objective: to evaluate the coping strategies** adopted by nurses and nursing technicians during the COVID-19 pandemic. **Methods:** cross-sectional study, carried out in a hospital in the interior of São Paulo. The sample consisted of 112 nursing professionals who answered the *Coping at Work Response Inventory*. Descriptive and inferential statistical analysis was performed. **Results:** the *coping strategies* with the highest averages were the coping responses for both nurses and nursing technicians (M=43.2; SD±8.5 and M=41.4; SD±9.1, respectively). **Conclusions:** Strengthening *coping strategies* can help the nursing team learn to deal with and cope with the occupational stress caused by the pandemic.

Keywords: Psychological Adaptation; Nursing Professionals; Coronavirus infections.

INTRODUCTION

With the advent of the *Coronavirus Disease-19* (COVID-19) pandemic, the nursing team faced occupational stress that interfered with the way they work and the adoption of *coping strategies*. One study pointed out symptoms of anxiety (48.9%) and depression (25.0%) in nursing professionals who worked in coping with COVID-19¹.

Occupational stress is directly linked to coping *strategies* and, it is interpreted as a perception of the worker in relation to the existing demands in the work environment and their ability and/or resources to respond or cope². The literature points to interpersonal relationships as the main factor for stress manifestations and coping responses as the most used³.

In recent years, this theme has been consolidated, in particular, due to changes in the daily work of professionals involved in assisting the coronavirus pandemic. With the

availability of personal protective equipment, strict infection control protocols, professional recognition, in addition to the reduction of new cases reported, they provided health professionals with psychological benefits, thus reducing *coping strategies*⁴.

Coping strategies can vary in different ways in individuals in the presence of the same stressor. People who make a positive cognitive assessment may perceive stress as a health problem to be solved and, on the contrary, those who make a negative assessment may see the same problem as a threat to health and believe that solving the problem is beyond their abilities. skills².

One study showed that a positive attitude from colleagues in the unit helped reduce nurses' stress⁵. In another, the positive attitude of coworkers and teamwork, as well as support from family members, favorably influenced the coping responses of professionals during the pandemic⁶. In addition, support from the management group helped increase the ability to deal with challenges, as well as support from peers as a coping strategy for the increased workload during the pandemic⁷. Thus, this pandemic made the nursing team seek new coping mechanisms.

This study aimed to evaluate the *coping strategies* adopted by nurses and nursing technicians during direct care for patients affected by COVID-19.

METHOD

Cross-sectional study with a quantitative approach, carried out in a hospital in the city of Sorocaba, in the interior of the State of São Paulo, whose structure offers 260 beds, 144 of which are for inpatient units, 96 for intensive care units and 20 for outpatient surgery. The participants were 124 nursing professionals involved in caring for patients with COVID-19, 32 nurses and 92 nursing technicians (NT), who agreed to voluntarily participate in

the study by signing the Free and Informed Consent Form (TCLE). Professionals who were on vacation or sick leave during the data collection period or those who did not agree to participate in the survey were excluded.

Data collection was between October and December 2021, in the three work shifts at times agreed with the health institution. The research protocol consisted of a sociodemographic questionnaire to assess the profile of professionals and the *Coping Responses Inventory* at Work (IRC-T), which was translated into Portuguese ⁸ from the *Coping Responses Inventory* (CRI) ⁹.

It consists of 48 items that address professionals' coping strategies in the work environment. Responses are grouped into two categories: Coping Responses and Avoidance Responses with 24 items each. The score is evaluated using the Likert scale (0-3) and ranges from 0 to 144 points. The higher the score, the greater the use of *coping* /coping in the work environment.

Data analysis was performed using descriptive and inferential statistics using the Chi -square or Fisher's exact test. The level of statistical significance considered was p-value<0.05. The instrument's reliability was assessed using *Cronbach* 's alpha.

The study was approved by the Research Ethics Committee (CEP) of the Faculty of Medical and Health Sciences of the Pontifical Catholic University (FCMS-PUC/SP) under number 4,763,683, in accordance with resolution n° 466/2012 of the National Health and regulatory guidelines and standards for research involving human subjects.

RESULTS

The sample consisted of 30 nurses and 82 NT involved in the care of patients with COVID-19. Both nurses and NT had a similar sociodemographic profile (Table 1).

Variables	Nurses (N=30)		TE*(N=82)	
	n**	%†	n	%
Age				
20-29	07	25.0	29	37.7
30-39	19	67.9	23	29.9
40-49	01	3.6	21	27.3
> 50	01	3.6	04	5.2
Gender				
Feminine	24	80.0	63	76.8
Masculine	06	20.0	19	23.2
Marital status				
Single	08	26.7	29	35.4
Married	15	50.0	39	47.6
Separated/Divorced	07	23.3	12	14.6
Religion				
catholic	16	53.3	36	43.9
Evangelical	10	33.3	29	35.4
spiritist	01	3.3	06	7.3
The person does not have	02	6.7	06	7.3
They did not answer	01	3.3	05	6.1
Work shift				
diurnal	20	66.7	50	61.0
nocturnal	10	33.3	32	39.0
more than one bond				
Yes	13	43.3	25	30.5
	Average	dp ‡	Average	dp
Working Time (years)				
In Profession	12.8	6.6	10.4	6.4
In the Institution	2.3	1.0	2.4	1.0
In the Work Sector	1.5	0.8	1.7	0.9

Table 1 - Sociodemographic Profile of Nurses and Nursing Technicians at the Regional Hospital "Dr. Adib Domingos Jatene". Sorocaba, SP, Brazil, 2021.

* TE: nursing technician; ** n: absolute number; †%: percentage; ‡ sd: standard deviation

Coping Inventory, the nurses had higher scores than the TE (M=70.5 ±13.6; M=69.1 ± 16.2, respectively), with the highest averages for coping responses (M= 43.2 ± 8.5) than for avoidance responses (M=27.2 ±7.6). However, when comparing the two groups, the results did not show significant differences (Table 2).

IRC-T domains*	Nurse (n=30)	YOU** (n=82)	p-value
	Mean (SD)†	Average (SD)	
Total Income Tax (0 - 144)	70.5 (13.6)	69.1 (16.2)	0.526
Coping Responses (0-72)	43.2 (8.5)	41.4 (9.1)	0.400
Avoidance Responses (0 - 72)	27.2 (7.6)	27.7 (8.7)	0.901

Table 2 – Values obtained from the Inventory of *Coping Responses* at Work (IRC-T), according to professional category. Sorocaba, 2021.

* IRC-T: Inventory of Coping Responses at Work; ** TE: nursing technician; † SD: standard deviation

To investigate whether the presence of another employment relationship could affect the ICR-T responses, a comparison was made between the professional categories that had one employment relationship and those with two employment relationships. The results showed a significant difference in *coping* strategies regarding avoidance responses with the highest values for nurses who had two jobs. (Table 3).

ICR-T*	two bonds (n=13)	One bond (n=17)	p-value
	Average (SD)**	Average (SD)	
Total IRC-T (0 - 144)	73.9 (14.1)	67.8 (13)	0.305
Responses Coping (0 - 72)	42.8 (8.9)	43.5 (8.5)	0.542
Avoidance Responses (0 - 72)	31.1 (7.9)†	24.3 (6.1)†	0.014

Table 3 - Comparison between Nurses, employment relationship and Inventory *Coping Responses* at Work (ICR-T). Sorocaba, 2021.

* ICR-T: *Coping* Response Inventory at Work
** dp: standard deviation

In this study, the *Cronbach 's alpha* of the ICR-T showed a high reliability index

(coefficient $\alpha=0.846$), demonstrating that the instrument was reliable for evaluating the proposed construct.

DISCUSSION

It was observed that the professionals who make up the nursing team were predominantly female, young adults, married, practiced some religion and had been in the profession for more than 10 years for both categories. This demographic profile is similar to other Brazilian studies in which there is a prevalence of women, aged less than 40 years and married,^{1,10} as well as those from abroad^{4,5,7,11,12}.

In the evaluation of the *Coping Inventory*, the nurses scored higher than the TE, with the highest averages for the coping responses. However, when comparing the two groups, the results did not show significant differences. On the other hand, a study showed that the nursing technician category used, as a strategy, avoidance responses with higher values than nurses ($p=0.027$)¹³. The *coping* strategies used in the work environment mean social support within the nursing team itself; are means by which professionals use to help themselves at the time of a health crisis. Therefore, it is possible that social support within the team itself helped to ensure that there was no statistical difference in the results of the current study.

This scenario was observed in two studies carried out during the COVID-19 pandemic. One of them revealed that nursing teams working in nursing homes received social support as a mediator between care and psychological well-being¹⁴. Already, the other, mentioned the support of the management group as the most important, which increased the ability to deal with challenges, as well as the support of peers as a coping strategy for the increased workload⁶.

The use of coping responses demonstrates

that the person is able to face stressful situations at work directly, that is, approaching problems in tune with reality. The opposite, avoidance responses, reflect that the person aims to postpone the act of dealing with the difficult issue or situation ¹⁵. Thus, the positive attitude of coworkers and teamwork, as well as support from family members, favorably influenced the coping responses of professionals during the pandemic ⁷. One study showed that the decrease in nurses' stress was due to the positive attitude of colleagues in the unit ⁵.

This study showed a significant difference in avoidance responses with the highest values for nurses who had more than one employment relationship. If, on the one hand, avoidance or denial reduces stress symptoms, on the other hand, they do not alter their cause. They are short-term responses, allowing better psychological functioning. However, denial can generate more stress because problems are not resolved ¹⁶. In fact, the results of this study showed that nurses with double work contracts acquire this alternative as a means of reward due to the fatigue caused by the double shift. One study showed that the double working day in nursing was marked by negativity, restrictions and suffering, putting professionals at risk for their health, as well as their social relationships and the quality of care ¹⁷. Consequently, this can negatively impact the quality and safety of patient care.

Most of the professionals in this study

worked in the ICU, given the complexity that involves patients affected by COVID-19. However, it was found that there was no significant difference between the sector of activity for any of the IEE and CRI-T variables, demonstrating that the sector with the greatest severity of the disease did not influence the level of stress and the coping strategies *used*. However, studies point to a greater degree of anxiety in professionals who work in closed sectors and with highly complex procedures ¹⁸ and an increase in burnout in professionals who worked in ICUs during the pandemic, with higher rates in nurses ¹⁹.

CONCLUSIONS

In this study, coping responses had the highest averages, which demonstrates that the person is able to face stressful situations at work directly and, therefore, in tune with reality. The nurse made greater use of coping responses as a *coping* strategy, resulting from the need to resolve conflicts and assume a leadership role within the nursing team. This relevant feature is highlighted, since the use of these responses is the most effective and direct strategy in coping with stressful situations at work.

coping strategies in Nursing practice, which can help the team to learn to deal with and face the occupational stress caused by the pandemic.

REFERENCES

1. Dal'Bosco EB, Floriano LSM, Skupien SV, Arcaro G, Martins AR, Anselmo ACC. Mental health of nursing in coping with COVID-19 at a regional university hospital. *Rev. Bras. Enferm.* 2020;73(Suppl 2):e20200434. <https://doi.org/10.1590/0034-7167-2020-0434>
2. Llapa-Rodriguez EO, Oliveira JKA, Lopes Neto D, Gois CFL, Campos MPA, Mattos MCT. Estresse ocupacional em profissionais de enfermagem [Internet]. 2018 [citado 2022 Dez 6]; 26:e19404. Disponível em: <https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/19404/26825>. DOI: <http://dx.doi.org/10.12957/reuerj.2018.19404>
3. Antonioli L, Echevarría-Guanilo ME, Martins CL, Amestoy SC, Longaray TM, Souza SBC. Coping e estresse na equipe de enfermagem de um centro de tratamento de queimados. *Rev Bras Queimaduras* [Internet]. 2017 [citado 2022 Dez 6];16(3):174-80. Disponível em: <http://www.rbqueimaduras.com.br/details/390/pt-BR>

4. Cai H, Tu B, Ma J, Chen L, Fu L, Jiang Y, et al. Psychological Impact and Coping Strategies of Frontline Medical Staff in Hunan Between January and March 2020 During the Outbreak of Coronavirus Disease 2019 (COVID-19) in Hubei, China. *Med Sci Monit* [Internet]. 2020 [citado 2022 Out 18];26:e924171. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177038/pdf/medscimonit-26-e924171.pdf>
5. Franco JA, Levi PA. Feelings, Stress, and Adaptation Strategies of Nurses against COVID-19 in Guayaquil. *Invest Educ Enferm* [Internet]. 2020 [citado 2022 Dez 6];38(3):e07. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7885538/pdf/2216-0280-iee-38-03-e07.pdf>
6. Zhao S, Yin P, Xiao LD, Wu S, Li M, Yang X, et al. Nursing home staff perceptions of challenges and coping strategies during COVID-19 pandemic in China. *Geriatr Nurs* [Internet]. 2021 [citado 2022 Dez 6];42(4):887-893. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8098060/pdf/main.pdf>
7. Zhang Y, Wang C, Pan W, Zheng J, Gao J, Huang X, et al. Stress, Burnout, and coping strategies of frontline nurses during the covid-19 epidemic in Wuhan and Shanghai, China. *Front Psychiatry* [Internet]. 2020 [citado 2022 Out 18];11:565520. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7649755/pdf/fpsy-11-565520.pdf>
8. Pérez-Ramos J, Pérez-Ramos A. Inventário sobre superação do stress profissional - ISSP, 1998. In: Ribeiro, DPSA. Estratégias de "coping" em psicólogos dos serviços básicos e ambulatoriais de saúde pública, 1999
9. Shaefer JÁ, Moos RH. CRI-Adult Form (Ideal). Psychological Assessment Resources. 1998. Versão disponibilizada pelos autores. Health Service Research & Center for Health Care Evaluation, Stanford University and Department of Veterans Affairs Medical Center, Palo Alto, Ca. Trabalho original de 1993.
10. Magalhães AMM, Trevilato DD, Dal Pai D, Barbosa AS, Medeiros NM, Seeger VG, et al. Professional burnout of nursing team working to fight the new coronavirus pandemic. *Rev Bras Enferm*. 2022;75(Suppl 1):e20210498. doi:10.1590/0034-7167-2021-0498.
11. Hoseinabadi T, Kakhki S, Teimori G, Nayyer S. Burnout and its influencing factors between front-line nurses and nurses from other wards during the outbreak of Coronavirus Disease (COVID-19) in Iran. *Invest Educ Enferm* [Internet]. 2020. [citado 2022 Dez. 6]; 38(2):e3. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7883923/pdf/2216-0280-iee-38-02-e3.pdf>
12. Gordon JM, Magbee T, Yoder LH. The experiences of critical care nurses caring for patients with COVID-19 during the 2020 pandemic: A qualitative study. *Appl Nurs Res* [Internet]. 2021 [citado 2022 Dez. 6]; 59:151418. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7946535/pdf/main.pdf>
13. Souza SBC, Milioni KCD, Dornelles MT. Analysis of the complexity degree of care, stress and coping of nursing in a hospital in Rio Grande do Sul. *Texto contexto-enferm*. 2018; 27(4): e4150017. doi:10.1590/0104-07072018004150017.
14. Zhao Y, Cui Y, Liu S, Wen Y, Ding Y, Xu Q. Staff's Psychological Well-Being and Coping Mechanisms During COVID-19 Lockdown in Care Homes for Older Adults: A Structural Equation Modeling Analysis. *Res Gerontol Nurs* [Internet]. 2021 [citado 2022 Dez. 6];14(4):180-190. Disponível em: <https://doi.org/10.3928/19404921-20210325-01>
15. Peçanha D L. Avaliação do coping numa equipe de enfermagem oncopediátrica. *Boletim Academia Paulista de Psicologia* [Internet]. 2006. [Citado 2022 Out. 18]: XXVI (2):69-88. Disponível em: <https://www.redalyc.org/articulo.oa?id=94626212>.
16. Muller JM, Silva N, Pesca AD. Estratégias de Coping no Ambiente Organizacional: Uma Revisão Integrativa. *Rev Psicol Organ Trab*. 2021;21(3):1594-1604. doi:10.5935/rpot/2021.3.20385.
17. Soares SSS, Lisboa MTL, Queiroz ABA, Silva KG, Abrantes JCR, Leite P, et al. Dupla jornada de trabalho na enfermagem: dificuldades enfrentadas no mercado de trabalho e cotidiano laboral. *Esc Anna Nery*. 2021;25(3):e20200380. doi:10.1590/2177-9465-EAN-2020-0380
18. Liu Y, Li J, Feng Y. Critical care response to a hospital outbreak of the 2019-nCoV infection in Shenzhen, China. *Crit Care* [Internet]. 2020 [citado 2022 Dez. 6]; 24(1):56. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7029610/pdf/13054_2020_Article_2786.pdf
19. Kok N, van Gorp J, Teerenstra S, van der Hoeven H, Fuchs M, Hoedemaekers C, Zegers M. Coronavirus Disease 2019 Immediately Increases Burnout Symptoms in ICU Professionals: A Longitudinal Cohort Study. *Crit Care Med* [Internet]. 2021 [citado 2022 Dez. 6];49(3):419-27. Disponível em: https://journals.lww.com/ccmjournal/Abstract/2021/03000/Coronavirus_Disease_2019_Immediately_Increases.3.aspx.