THE DEATH ANXIETY LEVEL OF NURSES DURING THE COVID-19 PANDEMIC AND ITS EFFECT ON THE FEAR LEVEL OF THEIR CHILDREN AGED 6-10 YEARS

ABSTRACT

Introduction: Nurses provide long-term care to patients diagnosed or suspected of COVID-19 during the epidemic. This situation may cause nurses to experience more fear and death anxiety and increase the fear levels of their children**.** This study was conducted to determine the effect of death anxiety levels of nurses on the fear level of their children during the COVID-19 pandemic.

Methods: This descriptive and cross-sectional study was carried out online with 362 nurses. Data were collected using an introductory information form, the Death Anxiety Scale, and the Children's Fear Scale.

Results: It was found that the death anxiety levels of nurses and fear levels of their children were high. It was determined that the children of nurses who had high death anxiety had higher fear levels.

Conclusions: The findings emphasize the importance of screening nurses' death anxiety and children's fear levels during the pandemic period and providing psychological support when necessary.

Keywords: COVID-19, Pandemic, Nurse, Child.

What's known

- During the pandemic, it was found that the death anxiety levels of nurses and fear levels of their children were high.
- During the pandemic, it was determined that the children of nurses who had high death anxiety had higher fear levels.

What's new

- It is seen that it is important to screen nurses' death anxiety and children's fear levels during the pandemic period and to provide psychological support when necessary.

1 | INTRODUCTION

Death anxiety is defined as one's anxiety and fear associated with death.[1] Every person experience death anxiety throughout life. However, considering their working conditions, nurses constitute one of the occupational groups that intensely experience this anxiety.[2] In particular, the recent COVID-19 pandemic will inevitably increase this anxiety in nurses. The COVID-19 pandemic still affects the entire world today. Its course is not fully known yet; there is no specific treatment and vaccine; close contact is the greatest risk of transmission and many lives have been lost all over the world.[3,4] All these have negatively influenced nurses[5,6] as well as all people.[7,8]

Nurses provide long-term care to patients diagnosed or suspected with COVID-19 in close contact. This may lead nurses to experience fear and death anxiety more.[2,9,10] It is almost impossible for the children of health workers, who experience intense fear and anxiety, not to be affected by this situation.[11-13] Even if parents try to hide their emotions, their irritable and anxious behaviors can be perceived by their children.[12,14,15] Parents' psychological problems can affect their children.[12,13,16,17] As a result, the body immunity of both parents and children may decrease and their susceptibility to diseases may increase.[18] Therefore, it is important to support nurses and their children not only physically but also psychologically for them to survive this process.[10,19-21] The study was conducted to determine the effect of death anxiety levels of nurses on the fear level of their children during the COVID-19 pandemic.

2 | METHODS

2.1 | Study design and subject

The study has a descriptive and cross-sectional design.

2.2 | Population and sample

No sample calculation was made; the study included all nurses in Turkey who could be reached via "Google Docs" for the questionnaires, fulfilled the inclusion criteria, and

agreed to participate in the study. The inclusion criteria of the study were working in a hospital in Turkey and having a child aged 6-10 years (The children's fears scale is used for children aged 6-10 years).

2.3 | Data collection tools

The data were collected using an introductory information form, the Death Anxiety Scale, and the Children's Fear Scale.

2.3.1 | Introductory information form

The form was prepared by the researchers in line with the literature.[13,17,21,22] It consists of questions about nurses' socio-demographic characteristics, characteristics regarding the COVID-19 pandemic, and characteristics regarding their children.

2.3.2 | Death anxiety scale

It was developed by Templer to determine the death anxiety level. The internal consistency of the scale is 0.76 and the reliability coefficient is 0.83.[23] The Turkish validity reliability study was conducted by Akca and Kose. The internal consistency of the Turkish version is 0.75 and the reliability coefficient is 0.79. The scale consists of 15 items expressing feelings such as anxiety, fear, and terror about death. Each item has yes and no options. In the first 9 items, each yes answer is scored 1 point and each no answer is scored 0 points. For the other 6 items, yes answers are scored 0 points and no answers are scored 1 point. The total score obtainable from the scale ranges from 0 to 15. Higher scores indicate high death anxiety.[24]

2.3.3 | Children's fear scale (CFS)

The CFS was developed to determine children's anxiety and fear levels and its reliability coefficient is 0.76.[25] The Turkish validity reliability study of the scale was performed and the reliability coefficient is 0.89. The scale consists of five drawn facial expressions ranging from neutral expression (0=no anxiety) to fearful face (4=severe anxiety) and is scored between 0 and 4 points. The increase in the scale score indicates increased children's fear and anxiety level. The scale is used for children aged between 6 and 10 and can be evaluated by families or researchers.[26]

2.4 | Data collection

The data were collected on the internet using a questionnaire. The study was conducted online between May 1 and May 31, 2020. Nurses were given information about the study through the information text at the beginning of the questionnaire. It took approximately 15 minutes for the nurses to answer the questionnaire.

2.5 | Data analysis

Statistical analyses were performed in the SPSS 21 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, version 21.0, Armong, NY: IBM Corp.) package program. Descriptive statistics (frequency, percentage, mean, standard deviation, median) were used for data evaluation. The fitness of the data to normal distribution was tested using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The Mann-Whitney U test was used for the comparison of two independent variables that were not normally distributed and the Kruskal-Wallis H test was used to compare three or more variables. The correlation between two independent variables that were not normally distributed was evaluated using the Spearman test. In the study, a $p < .05$ value was considered statistically significant.

2.6 | Ethical considerations

Before the study, permission (dated 03.05.2020) was taken from the Ministry of Health and ethics committee approval (dated 07.05.2020, numbered 2020/02) was received. Only voluntary participants were included in the study.

3 | RESULTS

The study was completed with 362 nurses. Of the nurses, 73.8% (n=267) lived in the city center and 90.9% (n=329) were female. The mean age was 36.05 ± 5.77. Table 1 shows the distribution of other descriptive characteristics of the nurses.

The mean daily working time of the nurses was 8.74 ± 3.00 hours; the mean weekly working time was 41.74 ± 11.46 hours; the mean number of patients nurses gave care to daily was 19.79 ± 18.29. Table 2 shows the distribution of other working characteristics of the nurses.

Of the nurses, 68.8% (n=249) were found to receive training on COVID-19 and 57.4% (n=143) of those who received training did not find the training sufficient. Table 3 shows the distribution of other characteristics of nurses regarding COVID-19.

Of the nurses, 82.3% (n=298) stated that they had problems with the care of their children during the pandemic; 71.5% (n=259) stated that they could not take care of their child sufficiently; 67.7% (n=245) stated that their child experienced fear and anxiety. Table 4 shows the distribution of other characteristics of nurses regarding their children during the pandemic.

In the study, no statistically significant difference was found between nurses' status of informing their children about COVID-19, taking sufficient care of the child during the pandemic, having changes in the mother-child relationship, and taking measures to protect the child and the children's fear score ($p > .05$).

In the study, the mean death anxiety score of the nurses was 11.13 ± 2.88 (minimum=1, maximum=15) and the mean fear score of their children was 3.11 ± 1.34 (minimum =0, maximum=4). There was a positive correlation between the nurses' death anxiety score and their children's fear score (r=0.139; p= .001) (Table 4).

4 | DISCUSSION

The study was completed with 362 nurses. In the study, it was determined that nurses' status of informing their children about the pandemic did not affect their children's fear levels. Although parents inform their children during the pandemic, children may have difficulty understanding the disease due to their cognitive development level and insufficient medical knowledge. This may lead children to experience a sense of uncertainty and fear.[15] However, at the age of 6-10 years, which was the age period of our study group, children can reach correct information with the support of their parents and peers via technology.[27] Previous studies[28,29] reported that the correct information provided to children during the pandemic affected them positively. Alisinanoglu et al.[30] found that incorrect information given to children during the pandemic affected them negatively. The related finding of our study differs from the literature. It is thought that this difference may be associated with the fact that children receive information from different people in the environment, other than their mothers and through communication tools such as television and the internet.

In the study, of the nurses, 82.3% (n=298) stated that they had problems with the care of their children during the pandemic; 71.5% (n=259) stated that they could not take care of their children sufficiently; 67.7% (n=245) stated that their children experienced fear and anxiety. Different studies[21,31,32] reported that health workers had problems with the care of their children during the COVID-19 pandemic and that their relations with their children were affected negatively during this process. On the other hand, studies conducted without considering the mother's profession[33,34] reported that this process affected the mother-child relationship positively. It was determined that parents who were not health workers, took this home isolation process as an advantage, spent more time with their children and that their communication with their children was positively affected.[33,34] Such difference between the studies may be because health workers continue to work actively and more intensely during the pandemic, while parents in other professions start working at home part-time or full-time and thus, spend more time with their children.

In the study, it was determined that nurses' status of taking care of their children sufficiently during the pandemic and having changes in their relationships with their children did not affect their children's fear levels. There is no study addressing this subject in the

literature. This finding may be associated with the support of family elders and relatives to childcare.

In the study, it was found that mothers' status of taking measures to protect the child during the pandemic did not affect their children's fear level. The biggest concern of the parents during this period is losing their children. Therefore, they may be overly protective of their children.[15] This can cause fear and anxiety in children. However, at the age of 6-10 years, which was the age period of our study group, children can understand the protective measures applied by their parents and their reasons.[27] It is thought that the study finding is associated with this.

In the study, it was found that the death anxiety levels of nurses and the fear levels of children were high and that children's fear levels increased as the death anxiety level of nurses increased. In the literature[7,11,21,35] it is stated that nurses experience severe fear during the pandemic and that two important factors cause this fear: uncertainty and fear of losing loved ones. It is observed that especially nurses with children are more afraid of losing their loved ones[36,37] and experience the fear of death more[38,39] since the epidemiology and clinical picture of COVID-19 in pediatric patients are not fully known yet.[40] According to the literature,[41,42] more than half of the diagnosed children were infected by their parents. This causes parents to be anxious more.[36,39] Previous studies[15,43] found that situations such as fear, anxiety, and concerns observed in parents also increase the fear level of their children. In a qualitative study conducted to examine the effects of the pandemic on health personnel,[44] health personnel stated that they experienced intense fear and their children's psychology was affected negatively. It is stated in the literature[13,39] that the intense fear experienced by parents during the pandemic causes children to react differently and reduces their quality of life. Liu et al.[21] found that the mental health of children who experienced fear and anxiety for a long time could be affected in the long term. This finding of the study is consistent with the literature. This result is important since it addresses the necessity of screening nurses' death anxiety levels during the pandemic. The limitation of the research was that the research was conductedonline with nurses working in Turkey.

5 | CONCLUSION

In the study, it was found that nurses' fear of death and children's fear levels during the pandemic period were high. The death anxiety experienced by nurses during the pandemic was found to increase the fear levels of their children. We recommend to evaluate nurses psychologically during the pandemic and determine their death anxiety levels within the

scope of this evaluation. By this means, it may be possible to support nurses psychologically in the early period and protect their children's psychology by reducing their fear.

FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial and not-for-profit sectors. No external or intramural funding was received.

REFERENCES

1. Karakus G, Ozturk Z, Tamam, L. Death and death anxiety. *Arch Med Rev J.* 2012;21(1).42-79.
2. Ozkırıs A, Gülec G, Yenilmez C, et al. A Study on physician attitudes: Approach to death and the dying patient. *The Thinking Man: J Psychiatry & Neurol Sci.* 2011;24(2). https://doi.org/10.5350/DAJPN2011240201
3. T.R. Ministry of Health. (2020). *Covid-19 Guide.* 2020. Access Date: 26.05.2020. https://Covid19bilgi.Saglik.Gov.Tr/Depo/Rehberler/Covid-19_Rehberi.Pdf?Type=File.
4. World Health Organization (WHO). (2020). Access Date: 26.05.2020. https://Www.Who.Int/Emergencies/Diseases/Novel-Coronavirus-2019/Question-And-Answers-Hub/Q-A-Detail/Q-A-Coronaviruses.
5. Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*. 2020;3(3):e203976-e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976
6. Ng K, Poon BH, Kiat Puar TH, et al. COVID-19 and the risk to health care workers: a case report. *Ann Intern Med.* 2020. https://doi.org/10.7326/L20-0175
7. Kang L, Li Y, Hu S, et al. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*. 2020;7(3):e14. https://doi.org/10.1016/S2215-0366(20)30047-X
8. Telli SG, Altun D. Coronavirus and the inevitable rise of online education. *J Uni Stud*. 2020;3(1):25-34. https://doi.org/10.32329/uad.711110
9. Benli SS, Yıldırım A. The relationship between life satisfaction and attitude towards death in nurses. *Gumushane Univer J Health Sci*. 2017;6(4):167-179.
10. Ergun R, Ergun D, Ergan B. Anxiety and depression in intensive care unit workers. *Turkish J Med Surg Intensive Care Med*. 2016;7(3).
11. Cevik Aktura S, Ozden G. Psychological effects of the pandemic: Covid-19 nurses. *J International Soc Res*. 2020;13(73):1307-9581.

12. Liu JJ, Bao Y, Huang X, et al. Mental health considerations for children quarantined because of Covid-19. *The Lancet Child & Adolesc Health*. 2020;4(5):347-349. https://doi.org/10.1016/S2352-4642(20)30096-1
13. Roccella M. Children and coronavirus infection (Covid-19): What to tell children to avoid post-traumatic stress disorder (PTSD). *The Open Pediatr Med J.* 2020;10(1). https://doi.org/10.2174/1874309902010010001
14. Rapee RM. Family factors in the development and management of anxiety disorders. *Clin Child Fam Psychol Rev.* 2012;15(1):69-80. https://doi.org/10.1007/s10567-011-0106-3
15. Yalcin H, Dai H, Erkoc E. Parents' moods regarding the virus outbreak and its effects on children. *J Eurasian Soc Econ Stud*. 2020;7(9):28-142. ISSN:2148-9963
16. Jiao WY, Wang LN, Liu J, et al. Behavioral and emotional disorders in children during the Covid-19 epidemic. *The J Pediatr*. 2020;221:264. https://doi.org/10.1016/j.jpeds.2020.03.013
17. Kudu Arıcan A, Sayal B. Comparison of irrational beliefs and emotional schemes of parents of children with and without psychological problems. *Turkey J Integr Psychother*. 2020;3(5):175-193.
18. Reddy AC. Immunity: A strong defense against corona virus. *Int J Sci Res (IJSR)*. 2020;9(7):127-137.
19. Daglı DA, Buyukbayram A, Arabaci LB. Psychosocial approach to patients diagnosed with Covid-19 and their family. *Izmir Katip Celebi Univ Fac Health Sci J*. 2020;5(2):191-195.
20. Faraji A, Karimi M, Azizi SM. Occupational stress and its related demographic factors among Iranian CCU Nurses: A cross-sectional study. *BMC Res Notes*. 2019;12(1):634. https://doi.org/10.1186/S13104-019-4674-5
21. Liu Q, Luo D, Haase JE, et al. The experiences of health-care providers during the COVID-19 crisis in China: a qualitative study. *The Lancet Global Health*. 2020;8(6):e790-e798. https://doi.org/10.1016/S2214-109X(20)30204-7
22. Yildiz M, Bulut MB. Relationships between death anxiety and personality traits. *Electron Turkish Stud*. 2017;12(13). https://doi.org/10.7827/TurkishStudies.12032
23. Templer DI. The construction and validation of Death Anxiety Scale. *J Gen Psychol.* 1970;82(2):165-177. https://doi.org/10.1080/00221309.1970.9920634
24. Akca F, Kose IA. Adaptation of the Death Anxiety Scale: A validity and reliability study. *J Clin Psychiatr*. 2008;11(1). https://doi.org/10.1080/07347332.2012.664260

25. Mcmurtry CM, Noel M, Chambers CT, et al. Children's fear during procedural pain: preliminary investigation of the Children's Fear Scale. *Health Psychol*. 2011;30(6):780. https://doi.org/10.1037/a0024817
26. Ozalp Gerceker O, Ayar D, Ozdemir Z, et al. Adapting the Child Anxiety Scale-Statefulness and Child Fear Scale to Turkish language. *Dokuz Eylul Univ Fac Nurs Electron J*. 2018;11(1):9-13.
27. Sarman A, Tuncay S, Sarman E. Preventing the negative psychological impact of the media on children aged 3-18 during the Covid-19 pandemic. *Van Health Sci J.* 2020;13(Supplement):11-17.
28. Demirbas NK, Kocak SS. Evaluation of the Covid-19 epidemic process from the perspective of parents with children between the ages of 2-6. *J Eurasian Soc Econ Res*. 2020;7(6):328-349.
29. Wang G, Zhang Y, Zhao J, et al. Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*. 2020;395(10228):945-947. https://doi.org/10.1016/S0140-6736(20)30547-X
30. Alisinanoglu F, Turksoy E, Karabulut R. Childhood fears during the pandemic. *Int J Humanit Educ*. 2020;6(14):447-568.
31. Celık SS, Ozbas AA, Celık B, et al. Covid-19 pandemic process: Turkish Nurses Association. *Koc Univ J Educ Res Nurs*. 2020;17(3):279-83. https://doi.org/10.5222/Kuhead.2020.34603.
32. Kilincel S, Issi ZT, Kilincel O, et al. Effects of coronavirus (Covid-19) pandemic on health anxiety levels of healthcare professionals. *J Contemporary Med*. 2020;10(3):1-7. https://doi.org/10.16899/jcm.767377
33. Basaran M, Aksoy AB. Parents' views on family life during the coronavirus (Covid-19) outbreak. *Int J Soc Res*. 2020;13(71):667-681.
34. Szabo TG, Richling S, Embry DD, et al. From helpless to hero: Promoting values-based behavior and positive family interaction in the midst of Covid-19. *Behav Anal Pract*. 2020:1-9. https://doi.org/10.1007/s40617-020-00431-0
35. Lima CKT, De Medeiros Carvalho PM, Idas L, et al. The emotional impact of coronavirus 2019-Ncov (New Coronavirus Disease). *Psychiatry Res*. 2020;112915. https://doi.org/10.1016/j.psychres.2020.112915
36. Mo Y, Deng L, Zhang L, et al. Work stress among chinese nurses to support Wuhan in fighting against Covid−19 epidemic. *J Nurs Manag*. 2020;28:1002–1009. https://doi.org/10.1111/jonm.13014

37. Sert ET, Mutlu H, Kokulu K, et al. Anxiety levels and associated factors among emergency department personnel fighting Covid-19. *J Contemp Med.* 2020;10:1-6. https://doi.org/10.16899/jcm.780820
38. Ersoy S, Koc SO, Ersoy IH. Determining the opinions of healthcare professionals who provide treatment and care to patients with Covid-19. *Electronic Turkish Stud*. 2020;15(6). https://doi.org/10.7827/TurkishStudies.43662
39. Karasu F, Ozturk Copur E. As the coronavirus (Covid-19) cases increase, an intensive care nurse at the forefront of the epidemic: "Heroes standing at the front". *J Int Care Nurs. 2020;*24(1):11-14.
40. Huang C, Wang Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*. 2020;395(10223):497-506. https://doi.org/10.1016/S0140-6736(20)30183-5
41. Panahi L, Amiri M, Pouy S. Clinical characteristics of Covid-19 infection in newborns and pediatrics: A systematic review. *Arch Acad Emerg Med*. 2020;8(1). https://doi.org/10.22037/aaem.v8i1.634
42. She J, Liu L, Liu W. Covıd−19 epidemic: Disease characteristics in Children. *J Med Virol.* 2020;92:747–754. https://doi.org/10.1002/jmv.25807
43. Pembecioglu N. Covid-19 media literacy and its effects on children. *Child Civilization*, 2020;5(9):73-112.
44. Yuncu V, Yilan Y. Examining the effects of the Covid-19 pandemic on healthcare workers: A situation analysis. *Iğdır Univ J Soc Sci.* 2020;*Supplementary Issue*:373-401.