

Examination of Nurses' Covid-19 Phobia and Thanatophobia Levels as Per the Service Unit Type

Hemşirelerin Covid 19 Fobisi ve Ölüm Korkusu Düzeylerinin Çalışılan Servis Türü Açısından İncelenmesi

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ÖZET

Amaç: Bu çalışmanın amacı yetişkin ve çocuk servislerinde çalışan hemşirelerin yaşadıkları ölüm korkusu ve covid 19 fobisi düzeylerinin karşılaştırılmasıdır.

Yöntem: Tanımlayıcı tipte tasarlanan çalışmanın verileri online toplanmıştır. Toplam 476 hemşire çalışmaya dahil edilmiştir. Araştırmanın verileri Sosyodemografik Bilgi Formu, COVID-19 Fobi Ölçeği (K19P-S) ve Tanatofobi Ölçeği (TÖ) kullanılarak toplanmıştır.

Bulgular: Hemşirelerin K19P-S puan ortalaması 63,6±23 puan, TÖ puan ortalamasının ise 5,22±1,57 puan olduğu belirlenmiştir. Yetişkin servislerinde çalışan hemşirelerin, çocuk servislerinde çalışan hemşirelere göre K19P-S ve TÖ puan ortalamalarının daha yüksek olduğu ve bu yüksekliğin istatistiksel olarak anlamlı olduğu belirlenmiştir. K19P-S alt boyutları ve ölüm korkusu ölçeği arasında pozitif yönde bir ilişki olduğu bulunmuştur. K19P-S puanı yükseldikçe hemşirelerin ölüm korkusu ölçeği puanları artmaktadır ($r=0.147$, $p=0.032$).

Sonuç: Sonuç olarak hem erişkin hem de çocuk servislerinde çalışan hemşirelerin orta düzeyde COVID-19 fobisi ve yüksek düzeyde tanatofobisi olduğu belirlenmiştir. Covid 19 pandemisi döneminde hemşirelerin yaşadıkları ölüm korkusu ve covid 19 fobisinin farkında olunması ve gerekli önlemlerin alınması gerekmektedir.

Anahtar kelimeler: Covid 19, Covid 19 fobisi, Hemşirelik, Ölüm korkusu.

ABSTRACT

Aims: This study aims to compare the levels of thanatophobia and COVID-19 phobia experienced by the nurses working for adult and pediatric services. During the COVID-19 pandemic, nurses had to watch the deaths of countless patients. COVID-19 phobia has developed in nurses, as a risky group that follows the effects of the COVID-19 pandemic from the front. All of these may have triggered nurses' fears of death.

Method: In the study designed as a descriptive research, the data were collected online. A total of 476 nurses were included in the study. The data of the study were collected by using Socio-demographic Information Form, COVID-19 Phobia Scale (C19P-S), and Thanatophobia Scale (TS)

Results: It was found that the mean of nurses' C19P-S scores was 63.6±23 points and the mean of their TS scores was 5.22±1.57 points. It was identified that the nurses working for adult services obtained higher mean scores from the C19P-S and TS than those working for pediatric services. A positive correlation was found between the C19P-S sub-dimensions and TS. The higher the C19P-S score, the higher the nurses' fear of death scores ($r=0.147$, $p=0.032$).

Conclusion: In conclusion, the nurses working at both adult and pediatric services had medium-level COVID-19 phobia and high-level thanatophobia. Awareness about the thanatophobia and COVID-19 phobia experienced by nurses during the COVID-19 pandemic should be enhanced, and necessary measures should be taken.

Keywords: COVID-19, COVID-19 phobia, Nursing, Thanatophobia.

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INTRODUCTION

The emergence of the COVID-19 pandemic had a sudden and deep impact on all societies across the world. As the cases and deaths associated with the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) increased, protective measures to slow down the spread of the virus, such as physical distancing, were put in place, and in the context of these measures, schools and businesses were closed down all of a sudden (1,2). This situation increased the phobia about COVID-19 and thanatophobia concurrently in several segments of society (3-5). Considering that the thanatophobia experienced by individuals increases during the pandemic, it is inevitable that the nurses who are obliged to work constantly with the COVID-19 patients at hospitals will have more advanced levels of thanatophobia. It was asserted that the nurses and health staff were twice as likely to be exposed to anxiety and depression and one-and-a-half times as likely to feel fear as the staff not working actively at the clinic (6).

At the outset of the pandemic, it was a common view that, unlike the adults, the children were saved from the disease to a great extent as the coronavirus had difficulty in holding on to the receptors in children's cells. However, in late 2020, changes began to occur in COVID-19 cases along with the emergence of COVID-19 variants that produced growing risk against global public health. For instance, the B.1.1.7 variant of COVID-19 that was identified in the United Kingdom for the first time enabled the virus to hold on to the cells more easily thereby causing infection to be more prevalent. Thus, it was put forward that this variant could cause more children to be infected with the disease (7,8). It is considered that the cases of children increasing because of the COVID-19 variants will lead to a rise in the number of children having COVID-19 treatment at the hospital (9). To the knowledge of the researchers of the current study, in the relevant literature, there was a quite small number of studies about the nurses working for pediatric services. On the other hand, along with the increase in the number of child COVID-19 patients, it is obvious that the disease did not only affect adults but also children. Thus, it is considered that not only the nurses providing adult patients with care but also the nurses working for pediatric services were affected by the pandemic negatively.

COVID-19 killed millions of people across the world. Even if the vaccination process was already initiated, people continued to die of COVID-19. In this complicated and chaotic period, human beings understood that no one's health and security were guaranteed. The human being is the only species that is cognizant of his/her mortality and capable of thinking about his/her own death. Therefore, human beings tried to cope with the fear of death throughout

history. Hence, the COVID-19 pandemic had psychological effects on human beings more than leading to deaths and caused human beings to experience an intense fear of death. The health staff who work with the COVID-19 patients on a one-on-one basis experience the fear of death more than all other human beings do (10-13).

Even if it was announced that COVID-19 was more dangerous for old people than the young ones, it was emphasized that no one was invincible (14). However, it is considered that the nurses who work for the adult service at the clinics will have experiences different from the nurses at the pediatric clinics because the nurses at the adult service serve patients having severe COVID-19 cases and they more frequently witness their patients dying. Therefore, this study aimed to compare the levels of thanatophobia and COVID-19 phobia experienced by the nurses working for adult and pediatric services.

MATERIAL and METHODS

This is a cross-sectional and descriptive study. The study group was composed of nurses who worked for pediatric and adult services during the pandemic, who used social media, and who were literate in Turkish. The nurses included in the research were divided into two groups as per the service unit type, namely, adult nurses and pediatric nurses. On the other hand, the nurses who worked at the hospital but did not actively take part in the patient care and served at the polyclinic or intensive care unit were not included in the research.

In the first part of the survey form, information and explanations about the study were introduced, and the criteria designated for being included in the research were presented in detail. A total of 476 nurses who satisfied the above inclusion criteria and volunteered to participate in the study were included in the research. As the participants were required to answer all questions in the survey form, no data was lost in the research. As the survey forms were submitted online, the increase in the number of submitted survey forms was designated as a criterion for finalizing the data collection process. As per the power analysis conducted in light of the results obtained from 476 nurses in the research, the effect size of the study was found as 0.31 ($d=0.31$) and the statistical power of the study was calculated as 80% at a 95% confidence interval.

The Socio-Demographic Information Form, Thanatophobia Scale, and COVID-19 Phobia Scale were used as the data collection tools in the research.

Socio-Demographic Information Form, the form contains questions about the nurses' socio-demographic data.

COVID-19 Phobia Scale (C19P-S), The scale was developed by Arpacı et al. (15) to measure the phobia that the individuals develop about COVID-19 (15). Cronbach's alpha coefficient was found as 0.92 for the scale. Designed as a Likert-type scale, the C19P-S has four sub-scales, that is, psychological, psycho-somatic, social, and economic. The scores to be obtained from the scale range between 20 and 100 points. A high score obtained from the scale refers to high-level general phobia and phobia about the specific aspects addressed in the sub-scales. In the current research, Cronbach's alpha coefficient was calculated as 0.95.

Thanatophobia Scale (TS), The scale was developed by Merrill et al. (16) to evaluate the thanatophobia that the health workers have (16). Yıldız (17) adapted the scale to Turkish society in 2019, and Cronbach's alpha coefficient was found as 0.91 in this respect (17). Designed as a seven-point Likert-type measure, the scale is comprised of seven items. A high score obtained by a respondent from the scale demonstrates that the respondent has high-level fear of death. In the current study, Cronbach's alpha coefficient was calculated as 0.94 for the scale.

The research data were collected in June-August 2021. The data collection tools were transferred to Google Forms, and to share the survey form, an internet link was created. By sharing this link through social media (Facebook, Instagram, and so on), the researchers invited the nurses to participate in the research.

Before starting to collect the research data, a pilot study was performed to test the comprehensibility of the survey form. A total of 10 nurses joined the pilot study and answered all survey questions in 10-20 minutes on average. In the aftermath of the pilot study, the nurses made no recommendation, and hence, no change was made in the survey questions. The nurses who took part in the pilot study were not included in the research.

Before the research was launched, the ethical endorsement was obtained for the research, and also, permissions necessary for using the scales were received. Before reaching the questions in the survey form, the nurses were provided with information about the research topic and aim and the time to be spent to complete the survey form. Next, the nurses were asked either to agree or disagree to participate in the study by clicking 'Yes' or 'No' in response to the statement, "I volunteer to participate in this research under no pressure or coercion.". Only after the nurses agreed to participate in the study by clicking 'Yes' in response to the above statement, they were allowed to go to the subsequent parts of the survey form and submit their answers to the survey questions.

The research data were analyzed by using the Statistical Package for Social Science (SPSS) version 21.0. The arithmetic means, standard deviations, numbers, and percentages were calculated for the survey questions. When the assumptions for parametric tests were verified, the Significance Test for the Difference Between Two Means was utilized to compare the differences between independent groups. On the other hand, when the assumptions for parametric tests did not hold, the Mann-Whitney U test was used for comparing the differences between independent groups. When there were more than two groups, the One-Way Analysis of Variance (ANOVA) or the Kruskal-Wallis H test was used. Moreover, the relationship between continuous variables was analyzed by using Spearman's rank correlation coefficient or Pearson correlation coefficient. Cronbach's alpha coefficient was calculated for the scales used in the study. Moreover, at the end of the study, the statistical power of the study was calculated with G*Power 3.1.9.2. The research results were evaluated at a 95% confidence interval and 5% significance level ($p < 0.05$).

RESULTS

Table 1 displays the descriptive data about the participant nurses. It was discerned that the participant nurses were aged 23-52 years and had a mean age of 35.21 ± 8.01 years. Of the research participants, 58% were female, 61% were graduates of bachelor programs, and 51% offered nursing care to children whilst 49% provided adult patients with nursing care. Besides, of the participant nurses, 40% witnessed death frequently, 87% offered care to the patients with COVID-19, 54% had treatment due to being infected with COVID-19, and 47% were quarantined due to COVID-19.

It was found that the participant nurses working for adult services (66.0 ± 24.5 points) obtained a higher mean of C19P-S scores than those working for pediatric services (61.1 ± 21.6 points) and this difference was statistically significant ($p < 0.05$). Besides, it was identified that the participant nurses working for adult services obtained higher mean scores from the C19P-S sub-scales than those working for pediatric services, however, these differences were not statistically significant ($p > 0.05$). Moreover, it was discerned that the participant nurses working for adult services (5.3 ± 1.1 points) obtained a higher mean of TS scores than those working for pediatric services (4.5 ± 1.4 points) and this difference was statistically significant ($p < 0.05$) (Table 2).

Table 1. Participant nurses' descriptive characteristics

Socio-demographic characteristics	Mean	SD
Age	35.21	8.01
	Number	Percentage
Gender		
Female	276	57.9
Male	200	42.1
Education level		
High school	74	15.5
Associate program	42	8.8
Bachelor program	290	60.9
Master program	49	10.2
Ph.D. program	31	4.6
Service unit type		
Pediatric service	244	51.2
Adult service	232	48.8
Witnessing death at the service unit		
Never	1	0.2
Sometimes	175	36.8
Frequently	190	39.9
Always	110	23.1
Having treatment due to being infected with COVID-19		
Yes	325	68.2
No	151	31.8
Being quarantined due to COVID-19		
Yes	259	54.4
No	217	45.6
Offering care to a patient diagnosed with COVID-19		
Yes	270	56.7
No	206	43.3
TOTAL	476	100

Even if the mean of C19P-S scores of all participant nurses, regardless of the service unit type, was not exhibited in Table 2, this figure was 63.6 ± 23 points. Besides, the mean of scores obtained by all participants from the C19P-S sub-scales ranged from 10.3 to 23.2 points. Furthermore, the mean of all participant nurses' TS scores was found as 5.22 ± 1.57 points.

Table 2. Means of scores that the participant nurses working for pediatric and adult services obtained from the scales

		<u>Adult Nurse</u>	<u>Pediatric Nurse</u>	<u>p</u>
		Mean \pm SD	Mean \pm SD	
Scales	TS	5.51 \pm 1.5	4.9 \pm 1.5	.008
	C19P-S	66 \pm 24.5	61.1 \pm 21.6	.032
	Psychological	23.6 \pm 6.4	22.8 \pm 5.7	.363
C19P-S	Psycho-Somatic	16.6 \pm 7.4	11.8 \pm 6.5	.063
Sub-Scales	Social	17.6 \pm 6.4	16.5 \pm 5.9	.185
	Economic	10.9 \pm 5.8	9.9 \pm 5.2	.189

As per the correlation analysis, it was identified that there was a statistically significant positive relationship between the mean C19P-S and TS scores ($p < 0.05$). As the participant nurses' C19P-S scores increase, their TS scores also go up ($r = 0.147$, $p = 0.032$). It was discerned that there were positive relationships between the mean C19P-S sub-scale scores and TS scores. In this regard, the relationships of the mean TS score with the mean C19P-S Psycho-Somatic and Economic sub-scale scores were statistically significant whereas the relationships of the mean TS score with the mean scores obtained from other C19P-S sub-scales were not statistically significant (Table 3).

Table 3. Analysis of the correlations between the mean C19P-S and TS scores

C19P-S	TS	
Psychological sub-scale	$r = -0.069$	$p = 0.314$
Psycho-Somatic sub-scale	$r = 0.228$	$p = 0.001$
Social sub-scale	$r = 0.094$	$p = 0.170$
Economic sub-scale	$r = 0.155$	$p = 0.024$
C19P-S Total	$r = 0.147$	$p = 0.032$

DISCUSSION

It is known that the main mode of transmission for the SARS-CoV-2 causing the COVID-19 disease was through respiratory droplets and close contact with respiratory droplets (18). Therefore, the nurses are in the group at high risk in terms of being infected with COVID-19 as they are obliged to provide nursing care in close contact with the COVID-19 patients. The feeling of insecurity experienced by the nurses due to the COVID-19 pandemic, the loneliness suffered by them as a consequence of isolation, and the anxiety felt by them about the future can give rise to COVID-19 phobia (5,19-21). Also, in a study, it was ascertained that the health workers continued to have COVID-19 phobia, and the COVID-19 phobia gave rise to a variety of psychological symptoms appertaining to mental health (21). In the current study that compared the COVID-19 phobia and thanatophobia of the nurses working for adult and pediatric services, it was found that the mean of participant nurses' C19P-S scores was 63.6 ± 23 points, and hence, the participant nurses had COVID-19 phobia above the medium level, and also, the nurses working for adult services obtained a higher mean of C19P-S scores (66.0 ± 24.5 points) than those working for pediatric services and this difference was statistically significant. In a study conducted one year ago with health workers including 95 physicians, 187 nurses, and

83 assistant healthcare staff, it was identified that the mean of C19P-S scores was 50.1 ± 17.3 points (approximately 10 points lower than the mean score obtained in the current study), and hence, the participants had medium-level COVID-19 phobia (22). In another study which was performed by Yayla and Eskici Ilgın (23) with nurses working for adult services at a university hospital and in which the research data were collected approximately one year ago, the mean of participant nurses' C19P-S scores was found as 52.9 ± 19.6 points (23). In the current study, the mean C19P-S score was around 10 points above the mean scores found in the studies in the relevant literature. The reason for this situation is considered to be the fact that the data in the relevant literature were collected approximately one year ago, the pandemic continued in the period when the current study was carried out, and the nurses' COVID-19 phobia also increased as a consequence of the prolonged pandemic process. Besides, the data were collected from a single hospital in other studies in the relevant literature collected. This situation is considered to have affected the number of patients and the size of each participant nurse's workload and, accordingly, the data obtained in other studies. On the other hand, collecting the research data from a larger sample and across the entire country made it possible to obtain more homogeneous data in the current study.

During the COVID-19 pandemic, nurses like all other human beings had to abide by the rules such as constantly putting on masks and face visors, immediately cleaning the objects and costumes coming from outside, using sanitizers, keeping physical distance from other individuals, and even never going out of the house. Besides, every day, they were face-to-face with daily news about the rates of mortality in relation to COVID-19 in the news programs, social media, and newspapers. Thus, inevitably, they began to have worries about being infected with the disease and dying. Likewise, the studies performed in the previous pandemics showed that the nurses began to think more about death in such periods (24-27). In a study conducted during the COVID-19 pandemic and researching the pandemic-related thanatophobia, it was stated that there was a statistically significant positive relationship between thanatophobia and COVID-19-related beliefs and behaviors. In the same study, when the participants in Australia where the mortality rate was actually below 2% were asked what the probability of dying would be if they were infected with COVID-19, the probability rate reported by the participants was 22%. This figure shows that the participants had death expectancy eleven times as high as the actual mortality rate (28). In the current study, the mean of thanatophobia scores obtained by the nurses working for adult and pediatric services was 5.22 ± 1.57 points, and hence, the participant nurses had thanatophobia above the medium level.

Besides, it was identified that the nurses working for adult services had a higher mean of thanatophobia scores than those working for pediatric services and this difference was statistically significant. In a study conducted with 154 nurses using the same scale in Turkey in the period before the pandemic, the mean score was 4.39 ± 1.38 points (17). In this respect, it is predicted that the nurses in the current study obtained almost one point more from the Thanatophobia Scale than the nurses in the study by Yıldız (17) was performed before the pandemic (17). In another study, it was put forward that almost half of the health workers had the fear of dying due to COVID-19, and this fear was significantly associated with their attitudes toward the job (29). The findings of the current study are in a similar vein to those in the relevant literature. The reason for this situation is considered to be the fact that the participant nurses constantly felt the death in the vicinity as the mortality and infection rates for the disease were high, more than half of the study group in the current research had treatment and were quarantined due to COVID-19, offered care to COVID-19 patients, and frequently witnessed death.

In the current study, it was identified that there was a positive relationship between the COVID-19 phobia and thanatophobia, and as the COVID-19 phobia increased, thanatophobia also went up in tandem with the COVID-19 phobia. Nowadays when people constantly talk about COVID-19 at home or workplace, it is a natural result that the nurses who worked at the hospital in close contact with COVID-19 patients had high-level COVID-19 phobia, and as the COVID-19 phobia increased, thanatophobia also went up in tandem with the COVID-19 phobia.

So that the quality of healthcare systems will be maintained and the healthcare services will not be interrupted, nursing care should be offered at the optimum level. In the current study, both the nurses working for adult services and the nurses working for pediatric services had medium-level COVID-19 phobia and high-level thanatophobia. To ensure that the nurses having COVID-19 phobia and thanatophobia create no problem in offering nursing care, it is important that they be supported. In this respect, the most significant parameters are the minimization of COVID-19 phobia and thanatophobia and the development of preventive strategies.

This research serves as a crucial source of information as it identifies the COVID-19 phobia and thanatophobia levels of the nurses working for adult and pediatric services and indicates the difference between the two groups. Departing from the findings of this research, it is important to identify the nurses' COVID-19 phobia and thanatophobia. Additionally, it is

essential to discern and take into consideration that the COVID-19 phobia was a factor increasing thanatophobia.

The findings obtained in the current study provide data about the identification and comparison of COVID-19 phobia and thanatophobia levels of the nurses offering care at the adult and pediatric services. According to the research findings, the nurses working at both adult and pediatric services had medium-level COVID-19 phobia and high-level thanatophobia. Besides, it was found that the nurses working for adult services had higher COVID-19 phobia and thanatophobia, and COVID-19 phobia was positively associated with thanatophobia. Departing from these findings, it is important that the nurses working for both adult and pediatric services be encouraged to express their phobia and fears and be supported to alleviate these fears. The hobbies and activities to be undertaken by the nurses such as attending sports clubs, healthy entertainment events, and vacations will help nurses experience less phobia and fear.

It is recommended that, in the prospective studies, the researchers study effective actions and strategies to enhance the adult and pediatric nurses' physical and emotional health and to alleviate their COVID-19 phobia and thanatophobia.

The strengths of the current research are that (1) the research data were collected from numerous hospitals all across the country, (2) the pediatric nurses who were neglected often in studies as the children were less affected by the pandemic were also included in the research, and (3) the nurses working for adult and pediatric services were compared in the research. The cross-sectional design of the research is deemed as a limitation of the study.

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Informed consent: Participants stated online that they voluntarily participated in the study before filling out the questionnaire.

Ethical Approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. (Date/Number: 02.04.2021/07.05)

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