



# The Effect of the Coronavirus Disease-19 Pandemic Process on Midwifery and Nursing Students' Tendency to Violence

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## ABSTRACT

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**Objective:** This study was carried out to determine the effect of the coronavirus disease-19 pandemic process on midwifery and nursing students' tendency toward violence.

**Materials and Methods:** The study, which used a cross-sectional descriptive design, was carried out with 549 university students studying midwifery and nursing. Data were collected using "Socio-Demographic Data Form" and "Violence Tendency Scale." Research data were collected between March 23, 2020 and September 15, 2020. The study was implemented online. The questionnaires were uploaded to <https://docs.google.com/forms/> and the link to the questionnaires was sent to the students through e-mail and WhatsApp.

**Results:** The pre-pandemic and while-pandemic median values of the violence tendency scale of the students were found to be 35 (min: 20–max: 86) and 34 (min: 20–max: 71), respectively, and the difference between the two was statistically significant ( $p=0.004$ ). The tendency of students to violence who were male was studying nursing, was 2<sup>nd</sup> and 3<sup>rd</sup>-year students, graduated from a health vocational high school, had inadequate income, had a nuclear family, and were placed in their departments with low scores, statistically significantly decreased during the pandemic process ( $p<0.005$ ).

**Conclusion:** In conclusion, it was determined that the tendency of nursing and midwifery undergraduate students toward violence was low before and during the pandemic process and that their tendency toward violence decreased during the pandemic process. We recommend that topics about violence should be integrated into the curriculum of future midwives and nurses and that training programs raising awareness and informing students should be organized especially during the pandemic process when the rate of violence is on the increase.

**Keywords:** Coronavirus disease-19, midwife, nurse, pandemic process, tendency to violence

## INTRODUCTION

The new type of coronavirus infection (coronavirus disease [COVID-19]), reported by China in December 2019, has turned into a pandemic and spread across the world in just a few weeks. In this context, countries have had to make quick decisions in many areas, including especially educational institutions (1, 2).

The Council of Higher Education, which universities in Turkey are affiliated to, decided that the entire education process would continue with distance education, open education, and digital education opportunities as of March 26, 2020 (3). This process has resulted in significant changes in the daily routines of families and individuals as well as students.

The inability to cope with the pandemic can lead to the development of destructive behaviors, including aggression, cruelty, making others prejudiced, and destruction, and the transmission of trauma and violence between generations (4). The presence of children and adolescents at home due to school closed during quarantine also worsens the exposure of young subjects to domestic violence with direct consequences to their mental and physical health. In a study investigating the psychosocial effects of epidemic diseases on individuals conducted with 1692 participants in South Korea, it was stated that staying at home for a long time due to the epidemic caused anxiety and anger. In another study conducted with 129 participants who isolated themselves due to the epidemic in Canada, it was found that there was an increase in the rate of post-traumatic stress disorder along with long isolation periods. In China, where the coronavirus first appeared, domestic violence cases were found to increase by 200% compared to the same month of the previous year. This rate was observed to increase by 50 percent in Brazil. According to the United Nations report, the rates of domestic violence-related to COVID-19 have increased at a "terrible" level globally. During the COVID-19 period, the rates of physical violence, psychological violence, and the demand for shelter increased by 80%, 93%, and 78%, respectively, in Turkey in March 2020 compared to the data of the previous year (5–8). To prevent this increase in violence rates, it is extremely important to determine the current status and increase the awareness of student midwives and nurses who will have direct contact with individuals in the future. For this reason, student midwives and nurses need to have a certain level of equipment in

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preventing the phenomenon of violence, determining the existing violence, and eliminating the health problems caused by its consequences. To provide this equipment, it is extremely important to reveal the extent of students' tendency to violence.

Although there were studies on different types of violence in different groups in the literature, no studies investigating the impact of the COVID-19 pandemic process on the tendency of midwifery and nursing undergraduate student groups to violence in our country were found (6–8). For this reason, this study was carried out to provide a source to future studies and to determine the effect of the COVID-19 pandemic process on the tendency of midwifery and nursing undergraduate students to violence.

## MATERIALS and METHODS

### Study Place and Design

The research was conducted in the Midwifery and Nursing Departments of the Health Sciences Faculty of Tokat Gaziosmanpaşa University. Data were collected with the survey application. The pre-test was administered between March 26, 2020, when the link to the questionnaire was sent to the students and April 15, 2020. The post-test was administered to the same sample group 5 months after the pre-test implementation between August 15, 2020, and September 15, 2020, when the pandemic was still prevailing. Seventeen students who did not participate in the pre-test and 31 students who did not participate in the post-test were not included in the study.

### Research Type

The study used a descriptive, cross-sectional design and was carried out to determine the effect of the COVID-19 pandemic process on the tendency of midwifery and nursing undergraduate students to violence. The nursing and midwifery education in Turkey consists of a 4-year undergraduate program. Students who graduate from midwifery department are conferred the title of a "midwife," and those who graduate from the nursing department are conferred the title of a "nurse."

In the midwifery and nursing departments of the university where the study was conducted, the topic of violence is already included in the course content in the curriculum. Since the students of the departments are mainly female, the topic of violence, especially violence against women, is covered in the content of more than one course.

### Population

The population of the study consisted of a total of 829 students, including 307 in the midwifery department and 522 in the nursing department of the faculty of health sciences at a university in the 2019-2020 academic year. The sample size of the study was determined as 369 based on 5% error level and 99% confidence interval according to the G power analysis and calculation of the sample size with known universe. The study was eventually completed with 549 students.

### Questionnaire

The study data were collected using a "Sociodemographic Information Form" and the "Violence Tendency Scale."

### The Sociodemographic Information Form

This form was created by the researchers by reviewing the literature (2, 9, 10). It consists of 13 items questioning information about the sociodemographic and educational status of the students who participated in the study.

### The Violence Tendency Scale (VTS)

This scale was developed by Göka, Bayat, and Türkçapar in 1995. Later, it was redesigned without changing its basic structure for use by the T.R. Family Research Institute of the Prime Ministry in a survey titled "Violence in the Family and Social Sphere," and its content validity was confirmed. The scale used to determine the tendency of students to violence in the study consists of a total of 20 items. It has a 4-point Likert-type rating structure. The items on the scale are rated on a range between "1: not appropriate at all" and "4: very appropriate." There are no inversed items on the scale. Accordingly, high scores obtained from the scale indicate that the student has a high tendency to violence. In the evaluations made according to overall scores, a score between 1 and 20 indicates that the student's tendency to violence is "very little;" a score between 21 and 40 shows that it is "low;" a score between 41 and 60 means it is "much;" a score between 61 and 80 indicates that it is "too much." Cronbach's alpha value (0.76) of the scale shows that the scale has internal consistency ( $\alpha > 0.60$ ) (11). In this study, Cronbach's alpha value of the scale was found as 0.87.

### Data Collection

The study was implemented online. The questionnaires were uploaded to <https://docs.google.com/forms/> and the link to this web page was sent to 829 students in the entire universe through e-mail and WhatsApp. An informed consent page was presented to the students on the first page of the questionnaire and 549 students, who gave consent, went on responding to the survey through the following pages.

### Statistical Analysis

The study data were analyzed on IBM SPSS V25 software package. Frequency, percentage, mean, minimum, maximum, and standard deviation values were used in the analysis of the sociodemographic data. Conformity to normal distribution was examined with Shapiro-Wilk and Kolmogorov-Smirnov tests. Data with non-normal distribution were analyzed using Wilcoxon tests. The data that did not fit the normal distribution were presented using median (min.–max.) values. Spearman correlation coefficient was used to examine the relationship between variables that do not show normal distribution. The level of significance was taken as  $p < 0.05$ .

### Ethics of the Study

At the outset, ethical approval of the Social and Human Sciences Research Ethics Committee of Tokat Gaziosmanpaşa University (Date: 25.06.2020 Decision: 11.16 Issue: 29074) and the institutional approval of the institution where the research was conducted was obtained.

## RESULTS

Table 1 presents the distribution of the sociodemographic data of the students.

**Table 1.** Distribution of sociodemographic data of the students

Sociodemographic characteristics	n	%	Sociodemographic characteristics	n	%
Department			Elementary school	148	27.0
Midwifery	219	39.9	Middle school	89	16.2
Nursing	330	60.1	High school	75	13.7
Year			Undergraduate or above	305	55.6
1	144	26.2	Mother's education		
2	116	21.1	Literate	84	15.3
3	137	25.0	Elementary school	64	11.7
4	152	27.7	Middle school	21	3.8
Sex			High school	393	71.6
Male	85	15.5	Undergraduate or above	140	25.5
Female	464	84.5	Family type		
High school			Nuclear family	16	2.9
Normal high school	73	13.3	Extended	93	17.0
Super/Anatolian/Science high school	376	68.5	Broken	46	8.4
Health vocational high school	56	10.2	Place of residence		
Others	32	5.8	Village	244	44.4
Father's job			Town	166	30.2
Officer	85	15.5	Small city	141	25.7
Worker	111	20.2	Metropolis	372	67.8
Retired	129	23.5	Accommodation		
Self-employed	224	40.7	With the family	27	4.9
Other	9	1.6	Friends	181	32.9
Mother's job			Alone	272	49.5
Officer	34	6.2	Income		
Worker	19	3.5	Adequate	105	19.1
Retired	487	88.8	Moderate	219	39.9
Self-employed	33	6.0	Inadequate	330	60.1
Other	181	33.0	Age (Mean±SD)	20.62±1.54	
Father's education			University placement score (Mean±SD)	295.95	
Literate	98	17.9			

SD: Standard deviation

Table 2 shows the median values of the students for the VTS before and during the pandemic period. The pre-pandemic median value was found as 35 (min: 20–max: 86) and the during-pandemic value was 34 (min: 20–max: 71). The difference between the two was statistically significant ( $p<0.005$ ), and students' level of tendency to violence was observed to decrease during the pandemic process.

Table 3 presents some demographic data of the students and the comparison of the median values of the VTS scores before and during the pandemic process. Accordingly, the violence tendency of the students who were male was studying nursing, was 2<sup>nd</sup> and 3<sup>rd</sup>-year students, graduated from health vocational high school, had a nuclear family, and had sufficient income decreased statistically significantly in the pandemic process ( $p<0.005$ ) (Table 3).

When the correlation between the students' ages and university

**Table 2.** Comparison of the median values of the VTS scores before and during the pandemic process

Medians of the VTS scores	Median (Min.–Max.)	Test and p value
Before pandemic	35 (20–86)	Z=-2.853, p=0.004
During pandemic	34 (20–71)	
VTS: Violence Tendency Scale; Z: Wilcoxon test		

placement scores and their mean VTS scores before and during the pandemic in Table 4 was examined, it was found that there was no relationship between age and the level of tendency to violence ( $p>0.05$ ). A weak positive correlation was found between the placement score and the tendency to violence during

**Table 3.** Some demographic data of the students and the comparison of the median values of the VTS scores before and during the pandemic process

Sociodemographic data	Mean VTS scores		Test and p value
	Before pandemic Median (Min.–Max.)	During pandemic Median (Min.–Max.)	
Sex			
Male	41 (20–75)	36 (22–71)	Z=-3.727, p< <b>0.001</b>
Female	34 (20–86)	34 (20–71)	Z=-1.402, p=0.161
Department			
Midwifery	35 (20–75)	34 (20–71)	Z=-1.078, p=0.281
Nursing	35 (20–86)	33 (20–71)	Z=-2.770, p= <b>0.006</b>
Year			
1	35.5 (23–75)	36.5 (20–65)	Z=-0.637, p=0.524
2	35 (20–62)	30 (20–71)	Z=-4.031, p< <b>0.001</b>
3	35 (20–74)	32 (22–71)	Z=-3.501, p< <b>0.001</b>
4	35 (22–86)	37 (24–65)	Z=-0.405, p=0.685
High school			
Normal high school	35 (23–75)	36 (21–71)	Z=-1.475, p=0.140
College	36 (23–65)	31 (23–42)	Z=-1.886, p=0.059
Super/Anatolian/Science high school	35 (20–86)	35 (20–71)	Z=-0.836, p=0.403
Health vocational high school	36 (20–71)	31 (22–70)	Z=-3.002, p= <b>0.003</b>
Others	38 (25–66)	33.5 (20–65)	Z=-1.497, p=0.134
Family type			
Core	35 (20–86)	34 (20–71)	Z=-2.908, p= <b>0.004</b>
Extended	35 (20–68)	35.5 (22–71)	Z=-0.297, p=0.767
Broken	35.5 (31–55)	34 (20–47)	Z=-1.528, p=0.126
Income			
Adequate	34 (23–71)	32.5 (22–70)	Z=-0.915, p=0.360
Moderate	35 (20–86)	35 (20–65)	Z=-1.118, p=0.264
Inadequate	39 (20–75)	36 (22–71)	Z=-3.268, p< <b>0.001</b>

the pandemic process. Accordingly, it was determined that as the university placement scores of the students increased, their level of tendency to violence during the pandemic process increased, as well ( $r=0.113$ ;  $p<0.001$ ) (Table 4).

## DISCUSSION

Behaviors such as violence and aggression are associated with many factors. These factors include especially gender, chronic health problems, difficulties of life, familial characteristics, habits, self-definition, and empathy (12). During the pandemic process, long-term lockdowns, domestic violence, excessive use of the Internet, and social media affect the mental health of students and cause them to exhibit different behaviors (13).

In the study, it was observed that the levels of nursing and midwifery students' tendency to violence were low both before and during the pandemic process. It is a very pleasing and important finding that midwifery and nursing students, who progress on the way to becoming healthcare professionals who can help, support, and provide information to individuals subjected to violence, es-

**Table 4.** Correlation between the students' ages and university placement scores and their mean VTS scores before and during the pandemic

Variables	Tendency to violence before the pandemic process	Tendency to during the pandemic process
Age	$r=0.031$ ; $p>0.05$	$r=0.019$ ; $p>0.05$
University placement scores	$r=0.068$ ; $p>0.05$	$r=0.113$ ; $p<0.001$
VTS: Violence Tendency Scale; Spearman correlation analysis; r: Correlation coefficient		

pecially during the pandemic process when the violence is on the increase, do not have a tendency toward violence. Similar to the results of this study, Tosunöz et al. (14), Özpölat (15), and Yüksel et al. (16), found that more than half of the university students had a low tendency to violence. In this study, the tendency of the students to violence during the pandemic process was found to be lower than before the pandemic, and the difference was found to be statistically significant ( $p<0.05$ , Table 2). No comparison could be made regarding this result of the study since no similar research



was found in the literature. When the rates of violence during the pandemic process in the world and our country were examined, the rates of particularly domestic violence were observed to increase. Globally, this increase in violence rates ranges from 10% to 50%. It has been found that calls to domestic violence support lines have increased by 20% in Spain, 30% in Cyprus, and 25% in England. It has been reported that Google searches using the keyword “domestic violence” have increased by 75% (6, 17–19). Considering the rates of violence in the world, it can be said that this result of the research (the decrease in the tendency of students to violence) is quite pleasing. This can be thought to have stemmed from the fact that students feel safe with their families, the anxiety of getting sick due to the epidemic has reduced during the quarantine times, they do not take exams and experience economic anxiety and that the online education process is relatively comfortable. In parallel with the results of this research, with social isolation measures and quarantine practices, the crime rates in society have been observed to decrease in various parts of the world (6). Furthermore, in the study conducted by Saddik et al. (20) with medical students, it was found that students reported higher levels of anxiety during their clinical rotation but that this anxiety decreased with the start of online learning. This result shows us that during the pandemic process, students in the clinical environment have been away from these environments, which has decreased their tendency to violence as well as their anxiety. In addition, the study data were collected in the first stage of the pandemic process. During this period, the low rate of infection and number of deaths in the country may have affected the anxiety levels of the students.

That the majority of the students in the midwifery and nursing departments at the university where the study was conducted were composed of females, and that the subject of violence, especially violence against women, is covered in the content of more than one course may have changed students' perspective toward violence and reduced their tendency to violence. There is a need for programs provided by trained multidisciplinary staff aiming to prevent domestic violence during the COVID-19 pandemic process and quarantine times and to accurately evaluate multiple areas of abuse. Midwives and nurses have important responsibilities in this regard, and it is extremely important that they are educated enough with regard to violence (4). In the literature, it is stated that the education given on violence reduces the traditional attitudes of midwives and nurses regarding their professional roles toward violence and the victim of violence, it can be effective in students' development of positive attitudes toward domestic violence, and that it helps gain knowledge, attitude, and skills to prevent violence (21, 22). These results support the explanation presented above.

In the study, it was determined that although male students' tendency to violence was higher than female students before and during the pandemic, the tendency of male students to violence during the pandemic process decreased, and the difference was statistically significant (Table 3). Similar to other studies in the literature, it was found that the tendency of females to violence was lower than male students (10, 14, 16, 23, 24). According to our study and the literature, socio-cultural factors, the way of growing up, social expectations, and cultural values have an effect on the high tendency of males to violence, and these factors create the individual characteristics of them and increase their tendency to violence.

The decrease in the tendency of male students to violence during the pandemic process, which is an important finding of the study, can be explained by the replacement of their concerns about male gender roles in this process by efforts to protect from the epidemic.

In the study, it was found that students who were studying nursing were 2<sup>nd</sup> and 3<sup>rd</sup>-year students, graduated from health vocational high schools, had a nuclear family structure, and had a moderate income had less tendency to violence during the pandemic process (Table 3). The results of the study of Dağlar et al. (9) showed similarities with the findings of this study in that the students' mean scores on violence attitude were low. The studies of Kulakci-Altintas and Ayaz-Alkaya (2018) (25) and Özgür et al. (23) in the literature indicated that students' tendency to violence increased as their school year increased. In the study of Tosunöz et al. (14), contrary to this study, it was found that the tendency of the students to violence in the 2<sup>nd</sup> and 3<sup>rd</sup> years was higher compared to students of other classes. In this study, on the other hand, it was determined that students in the 2<sup>nd</sup> and 3<sup>rd</sup> years had a lower tendency to violence. It is thought that the uncertainty and concerns about the future experienced by senior students during the pandemic period affect their tendency to violence. The absence of clinical practices and the absence of school planning for the following days during staying at home, failure of the midwifery department students to fully meet the criteria for graduation, and the lack of summer schools may have increased the concerns of senior students toward the future. First-year students' inability to adapt to university and online education and learning the theoretical side of the main practices they will use in midwifery and nursing practices, but not finding the chance to practice them in the clinic may have increased their concerns. It can be said that the tendency of violence was lower in the 2<sup>nd</sup> and 3<sup>rd</sup>-year students due to the absence of such anxiety. Research results in the literature that investigate the relationship between anxiety and tendency to violence support these comments. Studies have found that adolescents display negative and destructive behaviors toward themselves and their environment due to their anxiety (26, 27).

Students' individual, familial and social vulnerability and their individual and family coping skills are related to their mental health in times of crisis (13). In this study, it was determined that the tendency to violence in students with nuclear family type decreased significantly during the pandemic process. Avcı and Yıldırım (24) stated that the absence of one of the parents due to divorce, death, or abandonment in the broken family was an important factor in the occurrence of violence. Karataş et al. (12) stated that children with a tendency to violence did not have a healthy family function. Similarly, Gençoğlu et al. (10) determined that family was an important factor among the sources of the tendency to aggression and violence and that students whose parents were divorced or separated or who had a stepmother or stepfather had higher levels of aggression.

In the literature, there are different results found by studies investigating the relationship between income status and tendency to violence. In the study conducted by Ağlamaz (2006), the relationship between the monthly income of the students' families and aggression scores was significant, and the aggression levels of the students with low monthly income were high (12). Özgür et al. (23) found that the tendency of the students to violence whose

income was more than their expenses was higher. It is thought that the reason for the different results was because the tendency to violence and the level of aggression increased as a psychological response to effects arising from financial needs. In this study, we can attribute the decrease in the tendency to violence in students with inadequate income to the decrease in students' anxiety about their financial needs due to their stay at home.

In the study, it was observed that there was no relationship between age and the level of the tendency to violence (Table 4). Similar to the results of this study, according to Çelikten and Demirli (28), Eraslan et al. (29), and McGinley and Carlo (30), the age variable did not create a significant relationship in terms of the tendency to violence. This is thought to have been due to individual experience, not the age factor.

## CONCLUSION

It was found that the tendency levels of nursing and midwifery students to violence were low (between 21 and 40) both before and during the pandemic process and that the tendency of the students to violence decreased during the pandemic process. Furthermore, the violence tendency of the students who were male was studying nursing, was 2<sup>nd</sup> and 3<sup>rd</sup>-year students, graduated from health vocational high school, had a nuclear family structure, had a moderate income, and had a low university placement score decreased statistically significantly. It is important for midwifery and nursing students to be aware of their own tendency to violence so that they can define and deal with violence effectively. For this reason, we recommend that:

- Courses on violence should be included in the curriculum so that students can define violence and fight against it effectively
- And that more comprehensive studies covering a longer period of time and more than one region should be carried out to determine the level to which the pandemic process affects students' tendency to violence.

## Limitations

The fact that the study was conducted only with the students of midwifery and nursing departments of the related faculties constituted the limitation of the study. Another limitation of the study was that it was conducted in a certain time period. The results of the study can only be generalized to the study group.

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**Informed Consent:** Written informed consent was obtained from patients who participated in this study.

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