

Predictors of Professional Values in Male and Female Nurses

Erkek ve Kadın Hemşirelerin Mesleki Değerlerindeki Yordayıcılar

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Abstract

Aim: This study aimed to determine the professional values of nurses and to examine the predictors of professional values by gender.

Method: This descriptive study was conducted as an e-survey with 542 nurses in Turkey. The data were collected by using the Nurse Introductory Information Form and the Nurses' Professional Values Scale (NPVS).

Results: The NPVS total scores and the Action and Autonomy sub-dimension scores of the nurses with a bachelor's degree or higher, and the NPVS total score of the nurses working day shifts only were found to be significantly high ($p<0.05$). The NPVS total scores and the scores of Responsibility, Safety, and Autonomy sub-dimensions of male nurses with a bachelor's degree or higher were found to be significantly higher ($p<0.05$); the Autonomy scores of female nurses with a bachelor's degree or higher were found to be high ($p<0.01$). The NPVS total scores and the scores of the Human Dignity, Responsibility, and Action sub-dimensions of male nurses working day shifts only were found to be high ($p<0.05$). The NPVS Responsibility sub-dimension score of male nurses working in a state hospital was found to be low ($p<0.05$).

Conclusion: Female nurses attach more importance to professional values than male nurses. While the predictors of the professional values in male nurses were educational status, type of work shift, and the type of institution they worked in, the educational status of female nurses, who had a relatively higher and more homogeneous level of professional values compared to men, were predictive of professional values.

Keywords: Professional values, gender, nurses.

Öz

Amaç: Bu araştırmada, hemşirelerin mesleki değerlerinin belirlenmesi ve değer yordayıcılarının cinsiyete göre incelenmesi amaçlanmıştır.

Yöntem: Tanımlayıcı tipte olan bu araştırma, Türkiye'de 542 hemşire ile e-anket olarak yapılmıştır. Veriler "Tanıtıcı Bilgi Formu ve Hemşirelerin Profesyonel Değerleri Ölçeği (HPDÖ)" ile toplanmıştır.

Bulgular: Tüm grup için lisans ve üzeri eğitimi olanların HPDÖ toplam puanı ve alt boyutlarından harekete geçme ve otonomi puanları ile sürekli gündüz çalışan hemşirelerin HPDÖ toplam puanları anlamlı düzeyde yüksek bulunmuştur ($p<0,05$). Lisans ve üzeri erkek hemşirelerin HPDÖ toplam puanı, alt boyutlarından sorumluluk, güvenlik ve otonomi puanları önemli düzeyde yüksek saptanırken ($p<0,05$); lisans ve üzeri kadın hemşirelerin otonomi puanları önemli düzeyde yüksek bulunmuştur ($p<0,01$). Sürekli gündüz çalışan erkek hemşirelerin HPDÖ toplam puanı, alt boyutlarından insan onuru, sorumluluk, harekete geçme puanları anlamlı olarak yüksek saptanmıştır ($p<0,05$). Devlet hastanelerinde çalışan erkek hemşirelerin HPDÖ sorumluluk alt boyut puanı önemli düzeyde düşük belirlenmiştir ($p<0,05$).

Sonuç: Kadın hemşireler erkek hemşirelere göre mesleki değerlere daha fazla önem vermektedir. Erkek hemşirelerin mesleki değerlerini etkileyen etmenler arasında eğitim durumu, çalışma şekli ve çalıştığı kurum belirleyici iken erkeklere göre görece yüksek ve homojen olan kadın hemşirelerin mesleki değerlerinde eğitim durumu belirleyicidir.

Anahtar Sözcükler: Profesyonel değerler, cinsiyet, hemşireler.

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Introduction

The concept of professionalism, which is important in modern societies, is a standard form of behavior carried out by experts with an education in their field, supported and practiced by relevant professional groups, and provides attitudes and perspectives (Alkendi, 2018; Elmalı, 2020). Personal values guide the behavior and choices of individuals in their lives as human beings, while professional values guide the behavior of individuals as members of a professional team (Moyo et al., 2016; Geçit and Özbayır, 2020). There are professional values in nursing identified as altruism, aesthetics, autonomy, equality, human dignity, honesty, and social justice, and these values can be learned from the basis of nursing practices (Schmidt and McArthur, 2018; Geçit and Zayir, 2020; Uslu and Kızılkaya, 2021). Nurses are expected to know ethical values and practice in line with professional values in order to provide quality service (Uslu and Kızılkaya, 2021). Improving the professional values of nurses is among the main objectives of nursing education (American Association of Colleges of Nursing [AACN], 2008).

The subtitles related to the characteristics and behaviors of professionalism are listed as continuous education, ethical codes, sharing social values, scientific knowledge, use of theory in practice, focusing on issues of vital importance, research, publication, having a professional organization, and autonomy (Uslu and Kızılkaya, 2021; Dikmen et al., 2016). Professionalism is very important in determining standards for the nursing profession and providing quality care (Antoniou et al., 2022). Today, nurses provide appropriate health care as well as perform functions such as participating in professional organizations and political activities, conducting research, and developing theories. In this way, the concepts of professionalism and professional values come to the fore in nursing (Godsey et al., 2020). Professional values guide nurses in providing care, making decisions, and resolving ethical issues, while also guiding them to interact with sick or healthy people, colleagues, other members of the medical team, and society (Knecht et al., 2020). Nursing ethics also provide an opinion on what is right, good, and desirable, while supporting the development of professional behaviors (Alkaya et al., 2018). It is stated that the inclusion of ethical codes in detail in the nursing education curriculum will contribute to the development of professional values (Knecht et al., 2020).

Today, professional nurses are in demand instead of experienced nurses in parallel with innovations and developments in the practice in the field of health (Dikmen et al., 2016). It is stated in the literature that regular and effective training should be carried out to improve professional values in nursing and to solve ethical problems (Bijani et al., 2019). It is also emphasized that professional values, which are the cornerstone of the nursing profession, should be assessed at regular intervals (Knecht et al., 2020). The implementation of studies aimed at determining the professional values of nursing is important in terms of improving the social status of the nursing profession (Zengin et al., 2018; Yelekçi and Kutlu Koca, 2020). The professional values of nurses can be affected by many variables such as gender, educational status, and professional seniority (Antoniou et al., 2022; Aydın et al., 2022). It is stated that male nurses, who are increasing in number among nurses, will contribute to gender image, professional attitude, and professional values (Godsey et al., 2020). This contribution of the professional values of female and male nurses must be determined. Therefore, it is aimed to determine the professional values of male and female nurses and to examine the determinants of professional values by gender.

Method

Aim of Study: This study aimed to determine the professional values of male and female nurses and to examine the determinants of professional values by gender.

Type of Study: The research design of the study was descriptive.

Study Question: This study sought answers to the following questions.

- What are the predictors of the professional values of nurses in Turkey?
- How do the professional values of nurses in Turkey differ by gender?
- How do the predictors of professional values of male and female nurses differ by gender?

Design and Sample: This descriptive study was conducted in May 2021 as an e-survey in Turkey. The sample of the study consisted of nurses actively working in institutions. The minimum sample size of the study was calculated as 352 ($d=0.30$, $\alpha=0.05$, $\beta=0.20$) in G*Power 3.1.9.4 for the difference between two independent group averages (Faul et al., 2009). In the study, 542 nurses aged 18 years and older who were actively working as nurses in Turkey were reached and volunteered to participate.

Data Collection: A survey prepared in the Google Forms platform was used to collect data. For the data collected through sharing on social media accounts, the participants were informed about the purpose and scope of the study, and the items were answered if the participant agreed to participate in the study. It took about 15 minutes to fill out the questionnaire. The questionnaire consisted of two sections: Nurse Introductory Information Form and Nurses' Professional Values Scale (NPVS).

Nurse Introductory Information Form (NIIF): The NIIF was developed by the researchers in line with the literature (Bijani et al., 2019; Şahin Orak and Ecevit Alpar, 2012). The form consisted of a total of 12 items, including questions about the type of institution they worked in, age, gender, marital status, school of graduation, the working time in the profession, unit of work, type of work shift, position, whether he/she chose nursing profession willingly, which services he/she spent most of his/her working time on.

Nurses' Professional Values Scale (NPVS): The NPVS was developed by Weis and Schank (1997), and the validity and reliability study was carried out by Şahin Orak and Ecevit Alpar (2012). The total score of a five-point Likert-type scale, which consists of 31 items, varies between 31 and 155. As the score obtained from the scale increases, the importance that nurses attach to professional values increases. The scale has five sub-dimensions, including Human Dignity, Responsibility, Action, Security, and Autonomy. In the work of Şahin Orak and Ecevit Alpar (2012), Cronbach's alpha coefficient of the scale was calculated as 0.96, which is similar to this study.

Data Analysis: In the study, the descriptive statistics of number (n), percentage (%), mean, and standard deviation (\pm SD) were used. The reliability of the scales was studied with Reliability Analysis, the results were interpreted using Cronbach's alpha coefficient. The Shapiro-Wilk test was performed for the normality of the distribution. The Mann-Whitney U test was used to compare the means between two independent variables for single-variable analysis with the nonparametric distribution. The study used Multivariate Linear Regression Analysis. Statistical significance was accepted as $p < 0.05$. The data were analyzed using the IBM-SPSS 22.0 statistical program.

Ethic Approach: Prior to the research, written permission was obtained from the Health Sciences Institute Ethics Committee of a university (19.04.2021-PR0314R0). The nurses were informed that the information they provided would be used for scientific purposes only. The opinions of all nurses were respected in the research and nurses participated voluntarily. The nurses were informed that they could withdraw from the study at any time, and nurses' names were not used in the presentation.

Results

In Table 1, the descriptive characteristics of the nurses and the comparison of these characteristics according to the mean scores of the Nurses' Professional Values Scale are presented. 83.2% of the participants were female, 67.0% are under the age of 30, 60.7% were single, and 86.9% had a bachelor's degree or higher. The professional experience of 54.1% of the nurses was less than 5 years, and 70.1% of them work in public hospitals. The mean total score of NPVS was 129.76 ($SD=18.06$) in men, while it was 133.00 ($SD=17.19$) in women ($p>0.05$). The mean scores of the Security sub-dimension of the NPVS were found to be significantly higher in women than in men ($p<0.05$). There was no significant difference between men and women in the sub-dimensions of Human Dignity, Responsibility, Action, and Autonomy ($p>0.05$).

Table 1. The descriptive characteristics of the nurses and the comparison of these characteristics according to the mean scores of the Nurses' Professional Values Scale (N= 542)

Variables	n (%)	Total	Human dignity	Responsibility	Action	Safety	Autonomy
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Sex							
Female	451 (83.2)	133.00 (17.19)	47.63 (6.50)	29.25 (4.53)	20.98 (3.48)	17.68 (2.36)	17.46 (2.76)
Male	91 (16.8)	129.76 (18.06)	46.36 (6.53)	28.65 (4.65)	20.75 (3.54)	17.05 (2.65)	16.95 (3.15)
MWU		18365.50	17942.00	18982.00	19626.00	17703.50	18876.50
p		0.114	0.058	0.257	0.508	0.036*	0.217
Age (years)							
<30	363 (67.0)	132.40 (17.63)	47.49 (6.50)	29.11 (4.59)	20.89 (3.57)	17.52 (2.55)	17.40 (2.83)
≥30	179 (33.0)	132.58 (16.85)	47.28 (6.56)	29.22 (4.48)	21.06 (3.32)	17.70 (2.13)	17.32 (2.85)
MWU		32484.00	32024.50	32189.50	32056.00	32158.00	31830.00
p		0.998	0.786	0.861	0.799	0.845	0.694
Marital Status							
Married	213 (39.3)	131.26 (16.94)	47.02 (6.43)	28.89 (4.50)	20.72 (3.38)	17.45 (2.33)	17.17 (2.85)
Single	329 (60.7)	133.23 (17.61)	47.67 (6.56)	29.31 (4.58)	21.09 (3.55)	17.66 (2.48)	17.50 (2.82)
MWU		32206.50	32743.50	32728.00	32538.00	32552.00	32470.00
p		0.112	0.196	0.193	0.157	0.156	0.140
Education							
Associate degree and below	71 (13.1)	128.34 (17.64)	46.49 (6.49)	28.25 (4.91)	20.10 (3.51)	17.38 (2.50)	16.11 (3.50)
Bachelor's degree or higher	471 (86.9)	133.08 (17.25)	47.56 (6.51)	29.28 (4.48)	21.07 (3.47)	17.61 (2.41)	17.56 (2.67)
MWU		13949.00	14951.50	14831.50	13840.00	15873.00	12782.50
p		0.024*	0.149	0.123	0.018*	0.484	0.001**
Professional experience							
<5 years	293 (54.1)	131.58 (17.78)	47.16 (6.68)	28.94 (4.47)	20.74 (3.60)	17.43 (2.61)	17.30 (2.87)
≥5 years	249 (45.9)	133.49 (16.83)	47.72 (6.32)	29.39 (4.64)	21.19 (3.34)	17.75 (2.17)	17.45 (2.79)
MWU		34182.00	34795.00	34235.50	34033.00	34672.00	35374.00
p		0.206	0.353	0.215	0.175	0.312	0.534
Type of institution							
University, private and other	162 (29.9)	134.45 (17.39)	48.19 (6.40)	29.57 (4.56)	21.30 (3.49)	17.80 (2.45)	17.59 (2.83)
State Hospital	380 (70.1)	131.61 (17.30)	47.09 (6.54)	28.97 (4.54)	20.79 (3.48)	17.48 (2.41)	17.28 (2.83)
MWU		27574.50	27703.50	28112.00	27986.50	27909.00	28463.50
p		0.055	0.065	0.109	0.092	0.080	0.156
Unit of work							
Internal unit and other	162 (29.9)	134.79 (14.26)	47.89 (5.40)	29.89 (4.10)	21.41 (3.01)	17.88 (2.07)	17.72 (2.41)
Emergency, intensive care, and surgery unit	380 (70.1)	131.46 (18.45)	47.22 (6.93)	28.83 (4.70)	20.74 (3.66)	17.44 (2.55)	17.23 (2.99)
MWU		28461.00	30491.00	27030.00	28030.50	28311.00	29026.00
p		0.165	0.862	0.024*	0.097	0.133	0.282
Type of work shift							
Day	117 (21.6)	136.27 (15.82)	48.32 (5.98)	30.45 (4.07)	21.71 (3.10)	18.13 (2.03)	17.67 (2.69)
Night/ day and night	425 (78.4)	131.41 (17.64)	47.17 (6.64)	28.79 (4.61)	20.73 (3.56)	17.42 (2.50)	17.29 (2.87)
MWU		20753.50	22468.50	19705.00	20931.50	20817.50	22913.50
p		0.006**	0.110	0.001**	0.008**	0.006**	0.184
Position							
Clinical nurse	446 (82.3)	131.72 (17.36)	47.20 (6.56)	28.88 (4.54)	20.82 (3.50)	17.49 (2.47)	17.35 (2.82)
Responsible/managing nurse and Support services	96 (17.7)	135.86 (17.04)	48.45 (6.24)	30.40 (4.41)	21.54 (3.37)	17.99 (2.13)	17.49 (2.89)
MWU		18038.00	18867.50	17047.50	18652.00	18962.00	20342.50
p		0.015*	0.067	0.002**	0.046*	0.074	0.434
Willingness to choose nursing							
No	156 (28.8)	132.17 (18.27)	47.16 (7.17)	29.13 (4.75)	21.06 (3.44)	17.51 (2.63)	17.31 (2.92)
Yes	386 (71.2)	132.58 (17.00)	47.52 (6.24)	29.15 (4.47)	20.90 (3.51)	17.60 (2.33)	17.40 (2.80)
MWU		29928.50	29943.00	29839.50	29343.50	30087.00	29566.00
p		0.913	0.920	0.870	0.641	0.990	0.737
Most used applications during working hours							
Nursing care applications	350 (64.6)	131.72 (17.52)	47.27 (6.57)	28.89 (4.60)	20.73 (3.59)	17.47 (2.46)	17.37 (2.81)
Non-nursing care applications	192 (35.4)	133.80 (17.02)	47.69 (6.42)	29.61 (4.43)	21.34 (3.26)	17.78 (2.35)	17.38 (2.88)
MWU		31083.00	32231.50	30592.00	30330.50	30850.50	33217.50
p		0.149	0.431	0.083	0.059	0.109	0.822

*p<0.05, **p<0.01

Table 2. Comparison of the descriptive characteristics of male nurses according to the mean scores of the Nurses' Professional Values Scale (n= 91)

Variables	n	Total	Human dignity	Responsibility	Action	Safety	Autonomy
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age (years)							
<30	69	130.26 (18.03)	46.59 (6.39)	28.62 (4.58)	20.93 (3.58)	16.99 (2.83)	17.13 (2.96)
≥30	22	128.18 (18.49)	45.64 (7.05)	28.73 (4.97)	20.18 (3.45)	17.27 (2.05)	16.36 (3.71)
MWU		701.00	699.00	735.50	656.50	745.50	681.50
p		0.591	0.577	0.827	0.338	0.899	0.465
Marital Status							
Married	26	125.00 (18.41)	44.96 (6.95)	27.46 (4.83)	20.19 (3.64)	16.50 (2.70)	15.88 (3.47)
Single	65	131.66 (17.70)	46.92 (6.32)	29.12 (4.53)	20.97 (3.50)	17.28 (2.62)	17.37 (2.93)
MWU		659.50	691.50	660.50	740.00	688.50	620.00
p		0.103	0.177	0.104	0.352	0.164	0.044*
Education							
Associate degree and below	11	114.64 (19.78)	42.36 (7.38)	25.09 (5.92)	18.36 (3.29)	14.73 (3.20)	14.09 (4.37)
Bachelor's degree or higher	80	131.84 (16.91)	46.91 (6.26)	29.14 (4.27)	21.08 (3.47)	17.38 (2.42)	17.34 (2.76)
MWU		223.50	274.50	257.00	241.50	220.00	236.00
p		0.008**	0.044*	0.025*	0.015*	0.007**	0.011*
Professional experience (years)							
<5 years	54	128.65 (16.45)	45.96 (6.09)	28.19 (4.27)	20.61 (3.35)	16.91 (2.67)	16.98 (2.74)
≥5 years	37	131.38 (20.31)	46.95(7.17)	29.32 (5.15)	20.95 (3.84)	17.27 (2.64)	16.89 (3.70)
MWU		858.50	870.50	810.50	922.00	907.00	923.00
p		0.256	0.298	0.126	0.531	0.452	0.532
Type of institution							
University, private and other	20	137.90 (14.07)	48.95 (5.31)	31.00 (3.40)	22.15 (2.83)	17.90 (2.20)	17.90 (2.43)
State Hospital	71	127.46 (18.47)	45.63 (6.69)	27.99 (4.76)	20.35 (3.64)	16.82 (2.73)	16.68 (3.29)
MWU		478.00	497.50	447.00	517.00	536.00	559.00
p		0.026*	0.041*	0.011*	0.062	0.092	0.141
Unit of work							
Internal unit and other	17	134.71 (15.55)	47.88 (5.77)	30.65 (3.39)	21.47 (3.36)	17.35 (2.34)	17.35 (2.80)
Emergency, intensive care, and surgery unit	74	128.62 (18.50)	46.01 (6.68)	28.19 (4.80)	20.58 (3.58)	16.99 (2.73)	16.85 (3.23)
MWU		513.00	526.50	444.00	535.00	588.00	604.50
p		0.237	0.296	0.059	0.335	0.673	0.799
Type of work shift							
Day	12	143.58 (10.66)	50.67 (3.58)	32.42 (2.78)	23.58 (2.27)	18.42 (1.56)	18.50 (1.98)
Night/ day and night	79	127.66 (18.07)	45.71 (6.64)	28.08 (4.62)	20.32 (3.51)	16.85 (2.73)	16.71 (3.24)
MWU		216.50	260.50	199.00	212.00	317.00	317.00
p		0.003**	0.012*	0.001**	0.002**	0.063	0.061
Position							
Clinical nurse	74	128.74 (17.28)	46.14 (6.37)	28.26 (4.40)	20.61 (3.45)	16.82 (2.70)	16.92 (3.03)
Responsible/managing nurse and Support services	17	134.18 (21.13)	47.35 (7.31)	30.35 (5.43)	21.35 (3.97)	18.06 (2.25)	17.06 (3.72)
MWU		480.50	531.50	425.00	543.50	440.00	566.50
p		0.130	0.320	0.037*	0.380	0.052	0.517
Willingness to choose nursing							
No	20	126.50 (17.42)	45.80 (6.90)	27.70 (5.35)	20.50 (3.38)	16.30 (2.58)	16.20 (3.32)
Yes	71	130.68 (18.25)	46.52 (6.46)	28.92 (4.44)	20.82 (3.61)	17.27 (2.65)	17.15 (3.09)
MWU		594.50	668.00	632.00	659.00	540.50	573.50
p		0.268	0.687	0.453	0.622	0.100	0.183
Most used applications during working hours							
Nursing care applications	64	129.13 (15.84)	46.31 (5.81)	28.33 (4.33)	20.41 (3.36)	17.00 (2.34)	17.08 (2.80)
Non-nursing care applications	27	131.26 (22.76)	46.48 (8.11)	29.41 (5.34)	21.56 (3.89)	17.19 (3.32)	16.63 (3.90)
MWU		726.00	775.00	702.50	672.50	730.50	838.50
p		0.230	0.438	0.159	0.094	0.241	0.822

*p<0.05, **p<0.01

Table 2 shows the comparison of the descriptive characteristics of male nurses according to the Nurses' Professional Values Scale mean scores. A statistically significant difference was found between the Nurses' Professional Values Scale total scores of male nurses and their educational status, type of institution, and type of work shift (p<0.05). A significant difference was determined between the following sub-dimensions of the Nurses' Professional Values Scale and the variables specified: between the sub-dimension of human dignity and educational status, type of institution, and type of work shift (p<0.05); between the sub-dimension of Responsibility and educational status, type of institution, type of work shift, and position (p<0.05); between the sub-dimension of Action and educational status and type of work shift (p<0.05); between the sub-dimension of Safety and educational status (p<0.05); between the sub-dimension of Autonomy and marital status and educational status (p<0.05).

Table 3. Comparison of the descriptive characteristics of female nurses according to the mean scores of the Nurses' Professional Values Scale (N= 451)

Variables	n	Total	Human dignity	Responsibility	Action	Safety	Autonomy
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age (years)							
<30	294	132.90 (17.53)	47.70 (6.52)	29.22 (4.59)	20.88 (3.57)	17.64 (2.48)	17.46 (2.80)
≥30	157	133.19 (16.58)	47.51 (6.48)	29.29 (4.42)	21.18 (3.30)	17.76 (2.14)	17.45 (2.69)
MWU		22987.00	22762.00	23036.00	22249.50	22965.00	22749.00
p		0.944	0.809	0.974	0.526	0.930	0.798
Marital Status							
Married	187	132.13 (16.60)	47.31 (6.32)	29.09 (4.43)	20.80 (3.34)	17.58 (2.25)	17.35 (2.71)
Single	264	133.62 (17.60)	47.86 (6.62)	29.36 (4.60)	21.12 (3.57)	17.75 (2.44)	17.53 (2.80)
MWU		23030.00	23177.00	23498.00	22975.00	23093.50	23506.00
p		0.225	0.268	0.382	0.207	0.235	0.376
Education							
Associate degree and below	60	130.85 (16.17)	47.25 (6.08)	28.83 (4.52)	20.42 (3.49)	17.87 (2.03)	16.48 (3.23)
Bachelor's degree or higher	391	133.33 (17.33)	47.69 (6.56)	29.31 (4.53)	21.07 (3.47)	17.65 (2.41)	17.61 (2.65)
MWU		10467.00	10991.50	11019.00	10332.50	11429.00	9406.00
p		0.179	0.431	0.448	0.134	0.744	0.011*
Professional experience (years)							
<5 years	239	132.24 (18.04)	47.44 (6.78)	29.11 (4.51)	20.77 (3.66)	17.55 (2.58)	17.38 (2.90)
≥5 years	212	133.86 (16.17)	47.85 (6.16)	29.40 (4.56)	21.23 (3.25)	17.83 (2.08)	17.55 (2.59)
MWU		24276.50	24712.50	24434.50	23785.00	24407.50	24969.50
p		0.444	0.652	0.513	0.259	0.495	0.787
Type of institution							
University, private and other	142	133.96 (17.79)	48.08 (6.55)	29.37 (4.68)	21.18 (3.56)	17.78 (2.49)	17.55 (2.88)
State Hospital	309	132.56 (16.91)	47.42 (6.47)	29.19 (4.47)	20.89 (3.44)	17.63 (2.30)	17.42 (2.70)
MWU		20623.50	20619.50	21164.00	20655.50	20624.00	20882.50
p		0.306	0.303	0.545	0.314	0.298	0.400
Unit of work							
Internal unit and other	145	134.80 (14.16)	47.89 (5.38)	29.80 (4.18)	21.41 (2.98)	17.94 (2.04)	17.76 (2.36)
Emergency, intensive care, and surgery unit	306	132.15 (18.41)	47.51 (6.97)	28.98 (4.67)	20.78 (3.68)	17.56 (2.49)	17.32 (2.92)
MWU		21082.00	21647.00	20124.00	20488.00	20637.50	21035.00
p		0.393	0.676	0.109	0.186	0.223	0.362
Type of work shift							
Day	105	135.44 (16.13)	48.05 (6.15)	30.23 (4.14)	21.50 (3.12)	18.10 (2.08)	17.57 (2.76)
Night/day and night	346	132.26 (17.45)	47.51 (6.60)	28.95 (4.60)	20.83 (3.57)	17.55 (2.43)	17.42 (2.76)
MWU		16227.50	17402.00	15336.00	16340.50	15811.00	17458.50
p		0.098	0.513	0.015*	0.116	0.040*	0.536
Position							
Clinical nurse	372	132.32 (17.34)	47.41 (6.58)	29.00 (4.56)	20.86 (3.51)	17.62 (2.41)	17.43 (2.77)
Responsible/managing nurse and Support services	79	136.23 (16.16)	48.68 (6.02)	30.41 (4.20)	21.58 (3.26)	17.97 (2.12)	17.58 (2.71)
MWU		12625.00	13033.50	12051.00	12866.50	13566.50	14121.00
p		0.049*	0.113	0.012*	0.080	0.275	0.577
Willingness to choose nursing							
No	136	133.00 (18.30)	47.36 (7.21)	29.35 (4.64)	21.14 (3.46)	17.68 (2.60)	17.47 (2.84)
Yes	315	133.00 (16.71)	47.75 (6.17)	29.20 (4.49)	20.92 (3.49)	17.68 (2.25)	17.45 (2.73)
MWU		21124.50	21333.50	20921.00	20581.00	20737.50	21280.50
p		0.816	0.946	0.693	0.506	0.584	0.910
Most used applications during working hours							
Nursing care applications	286	132.30 (17.85)	47.48 (6.72)	29.02 (4.66)	20.80 (3.64)	17.57 (2.48)	17.44 (2.82)
Non-nursing care applications	165	134.21 (15.94)	47.89 (6.11)	29.64 (4.28)	21.31 (3.15)	17.87 (2.14)	17.50 (2.67)
MWU		22392.50	23074.00	21965.00	21940.00	22200.00	23580.00
p		0.367	0.695	0.220	0.211	0.287	0.991

*p<0.05

Table 3 shows the comparison of the descriptive characteristics of female nurses according to the Nurses' Professional Values Scale mean scores. A statistically significant difference was found between the Nurses' Professional Values Scale total scores and the position of female nurses ($p<0.05$); between the sub-dimension of Responsibility and type of work shift and position ($p<0.05$); between the sub-dimension of Safety and type of work shift ($p<0.05$); between the sub-dimension of Autonomy and educational status ($p<0.05$).

Table 4. Multivariate linear regression analysis of factors associated with Nurses' Professional Values

Predictors	All groups			Male			Female		
	β	SE	p	β	SE	p	β	SE	p
Total									
Level of education (Bachelor's degree or higher)	0.091	2.193	0.034*	0.229	5.506	0.024*	0.049	2.383	0.295
Type of institution (state hospitals)	-0.051	1.654	0.239	-0.188	4.261	0.059	-0.023	1.789	0.628
Type of work shift (day)	0.084	2.298	0.123	0.323	6.819	0.014*	0.037	2.455	0.537
Position (Responsible/managing nurse and Support services)	0.036	2.430	0.504	-0.096	5.858	0.454	0.062	2.669	0.298
Human dignity									
Level of education (Bachelor's degree or higher)	0.053	0.827	0.221	0.148	2.063	0.157	0.021	0.902	0.658
Type of institution (state hospitals)	-0.066	0.624	0.136	-0.176	1.597	0.088	-0.045	0.678	0.352
Type of work shift (day)	0.029	0.867	0.598	0.322	2.555	0.018*	-0.026	0.930	0.667
Position (Responsible/managing nurse and Support services)	0.050	0.917	0.349	-0.139	2.195	0.296	0.086	1.011	0.146
Responsibility									
Level of education (Bachelor's degree or higher)	0.076	0.573	0.076	0.199	1.414	0.049*	0.038	0.625	0.422
Type of institution (state hospitals)	-0.031	0.432	0.483	-0.223	1.094	0.026*	0.007	0.470	0.888
Type of work shift (day)	0.110	0.600	0.043*	0.295	1.751	0.024*	0.080	0.644	0.184
Position (Responsible/managing nurse and Support services)	0.058	0.635	0.275	-0.019	1.504	0.883	0.070	0.701	0.234
Action									
Level of education (Bachelor's degree or higher)	0.093	0.441	0.029*	0.160	1.090	0.117	0.065	0.482	0.169
Type of institution (state hospitals)	-0.042	0.332	0.335	-0.172	0.843	0.087	-0.023	0.362	0.642
Type of work shift (day)	0.097	0.462	0.076	0.404	1.350	0.002**	0.050	0.497	0.410
Position (Responsible/managing nurse and Support services)	0.017	0.488	0.751	-0.182	1.159	0.158	0.047	0.540	0.429
Safety									
Level of education (Bachelor's degree or higher)	0.031	0.307	0.472	0.296	0.833	0.005**	-0.028	0.328	0.552
Type of institution (state hospitals)	-0.036	0.232	0.415	-0.108	0.645	0.291	-0.008	0.246	0.866
Type of work shift (day)	0.105	0.322	0.056	0.068	1.031	0.608	0.094	0.338	0.122
Position (Responsible/managing nurse and Support services)	0.013	0.340	0.805	0.135	0.886	0.305	0.000	0.367	0.993
Autonomy									
Level of education (Bachelor's degree or higher)	0.172	0.356	<0.001	0.284	0.988	0.007**	0.139	0.381	0.003**
Type of institution (state hospitals)	-0.033	0.269	0.449	-0.102	0.764	0.317	-0.015	0.286	0.748
Type of work shift (day)	0.063	0.373	0.246	0.241	1.223	0.071	0.020	0.393	0.745
Position (Responsible/managing nurse and Support services)	-0.023	0.395	0.670	-0.142	1.051	0.282	0.006	0.427	0.916

β : Standard partial regression coefficient, SE: Standard Error.

* $p<0.05$, ** $p<0.01$

Table 4 shows the multivariate linear regression analysis of the NPVS-related factors for the entire group, male nurses and female nurses. The NPVS total scores ($p<0.05$) and the scores obtained by those with a bachelor's degree or higher from the sub-dimensions of Action ($p<0.05$) and Autonomy ($p<0.001$) were found to be significantly higher than those with an associate degree or lower when compared in terms of educational status, a variable included in the model for the whole group. It was found that nurses working day shifts only had significantly higher NPVS total scores than the nurses working in shifts or nurses on call ($\beta:0.093$, $p<0.05$).

The NPVS total scores ($p<0.05$), the sub-dimension scores of Responsibility ($p<0.05$), Safety ($p<0.01$), and Autonomy ($p<0.01$) of the male nurses with a bachelor's degree or higher were significantly higher, and the Autonomy scores of the female nurses were significantly higher, however, no significant relationship was determined between the NPVS total score, the sub-dimensions of Responsibility and Safety, and educational status (Table 4).

It was found that male nurses working day shifts only had significantly higher NPVS total scores ($p < 0.05$) and higher sub-dimension scores of Human Dignity ($p < 0.05$), Responsibility ($p < 0.05$), Action ($p < 0.01$) than the nurses working in shifts or on calls. There was no significant difference between the types of work shift and the NPVS total score, the scores of Human Dignity, Responsibility, and Action sub-dimensions ($p > 0.05$). The responsibility sub-dimension scores of the male nurses working in public institutions were found to be significantly lower than those working in private or other institutions ($p < 0.05$), there was no significant difference between female nurses and the type of institution they worked in ($p > 0.05$) (Table 4).

Discussion

In this study, which was conducted as an e-survey with 542 nurses actively working in health institutions in Turkey, the professional values of nurses were examined and the predictors of professional values by gender were investigated.

According to the study, the mean NPVS score of the Safety sub-dimension was significantly higher in women than in men. In general, the mean total scores of NPVS and the mean score of the Human Dignity, Responsibility, Action, and Autonomy sub-dimensions were found to be higher in women than men, while no significant difference was determined between genders. The literature reports that female nursing students or working nurses give more importance to professional values and that female university students had higher mean scores in the Ethics sub-dimension than male students (Bleda et al., 2020; Çöplü and Tekinsoy Kartın, 2019; Fernández-Feito et al., 2019). Ibrahimoglu's et al. (2020) reported that women had high scores in total NPVS and Human dignity, Responsibility, Action, Safety, and Autonomy sub-dimensions, but showed a significant difference only in the Autonomy sub-dimension. A study found that male nursing students had a higher tendency for having self-regulated learning (Lee et al., 2020) and Uslu and Kızılkaya (2021) determined that male nurses have higher professional values such as autonomy and responsibility. It is noted in the literature that women give more importance to the values related to professional commitment than men and that women (69%) actively participated in health-related activities and worked harder to improve themselves professionally than men (49.3%) (Fernández-Feito et al., 2019). The different findings in the literature may be due to the gender roles of women and men as well as the differences in upbringing.

The mean total scores of NPVS and the mean scores of the sub-dimensions of Action and Autonomy of the nurses with a bachelor's degree or higher were found to be significantly high in the whole group. The NPVS total scores, and the scores of Responsibility, Safety, and Autonomy sub-dimensions of male nurses with a bachelor's degree or higher were found to be significantly higher; the autonomy scores of female nurses were found to be significantly high. In addition to a study with similar findings to our study (Süzen and Çevik, 2020), some studies demonstrate a positive relationship between educational level and professional values (Bijani et al., 2019; Green, 2020). A relationship was found between the professional values of the nurses with a postgraduate or doctorate degree and the NPVS total mean scores and the mean score of the autonomy sub-dimension (Göriş et al., 2014; Mert and Çelik Durmuş, 2019). It is stated in the literature that professional values can be developed through education, and continuous professional training can contribute to the development of professional values in nursing (Adıgüzel et al., 2011; Ministry of Health [MH], 2021). According to the research results, it can be said that professional values increase as the level of education and professional experience increase.

The competency that comprises the professional values in nursing is a multidimensional concept that includes professionalism, effective communication, evidence-based practice, care management, quality improvement, teamwork, collaboration, and professional leadership (MH, 2021). A study found a significant difference between the clinical area in which nurses work and their position and professional attitudes (Erol and Turk, 2019). A study conducted in Iran determined no relationship between the job position and professional attitudes (Karami et al., 2017). Similarly, this study did not find a relationship between the professional values of nurses and their working position. This finding, which supports the literature, may have occurred because nurses were often assigned to different units to support staff during the COVID-19 pandemic.

The nurses working day shifts only had higher scores of professional values in the sub-dimension of the NPVS Responsibility sub-dimension across the whole group. It is known that nurses who have administrative tasks in hospitals often work on the day shift. Göriş et al. (2014) reported that the nurses with administrative duty had higher NPVS mean scores than the other nurses. Kantek and Kaya (2017) determined that the nurses with administrative duties had a high level of professional values. It is stated in the literature that having professional values is essential for administrative nurses to evaluate and improve the quality of care and has an important role in developing the nursing culture of the institution (Gray and Shirey, 2013; Hendel and Gefen-Liban, 2003). In this study, it was found that the professional values of female nurses

working in shifts and on-call had relatively lower professional values than those working on day shifts, but it was not a significant difference. A study has reported that the importance given to professional values decreases as the professional experience increases (Fernández-Feito et al., 2019). In our study, the fact that the average professional working hours of men were higher than women may have affected this result. It was found that male nurses working day shifts only had significantly higher NPVS total scores and higher sub-dimension scores of Human Dignity, Responsibility, and Action than the nurses working in shifts or on calls. In addition, this finding suggests that daytime work affects the professional values of nurses, or that nurses who will be assigned to administrative duties are chosen among nurses with high professional values.

The responsibility sub-dimension scores of the male nurses working in public institutions were found to be significantly lower than those working in private or other institutions, while there was no significant difference between the NPVS means scores and sub-dimension mean scores and the type of institution in which female nurses worked. It is stated in the literature that the working environment directly affects the professional values of nurses (Shaw and Degazon, 2008). Israeli female doctors and nurses had significantly higher levels of organizational values in terms of cooperation, commitment, innovativeness, vision, and marketing (Warshawski et al., 2017). A study in Turkey has shown that the type of institution where nurses work affects their nursing care behavior and professional attitudes (Erol and Turk, 2019). However, a study in Isfahan, Iran found similar levels of professional values among nurses working in public institutions under contract and permanent employees (Shahriari and Baloochestani, 2014). A study in Rafsanjan, Iran, reported that type of work shift was not associated with professional competence (Karami et al., 2017). Other studies have shown no relationship between the institutions in which nurses work and their professional values (Kaya and Kantek, 2016; Zengin et al., 2018). This finding, in which gender differences could not be discussed, suggests that the professional values of nurses are affected by the type of hospital such as teaching or research, patient capacity, and task distribution of hospitals.

This work had some strength. The fact that there is no study in the literature that compares professional values by gender and that this is one of the first studies in this respect are the strongest aspect of this study. The fact that this study was conducted with both female and male nurses across Turkey, compared to studies that are usually conducted with nursing students, is the strength of the study. There are limitations to this study. The fact that the data of this study, which was conducted as an e-survey, were collected through social media limits its generalizability.

Conclusion and Recommendation

Female nurses attach more importance to professional values than male nurses. Female nurses have a more homogeneous and higher level of professional values than male nurses in terms of professional values and sub-dimension scores, except for the educational status included in the sub-dimension of autonomy. Male nurses' professional values of educational status, types of work shift, and/or the type of institution they work in are determinant in terms of the total score, and the scores of human dignity, responsibility, taking action, security, and/or autonomy sub-dimensions. While the predictors of the professional values in male nurses were educational status, type of work shift, and the type of institution they worked in, the educational status of female nurses, who had a relatively higher and more homogeneous level of professional values compared to men, were predictive of professional values.

Considering the different learning styles of nursing students according to gender, professional values, and ethical principles should be given more space in the nursing education curriculum and actively working nurses should be supported with professional values and in-service training on nursing ethics. It is recommended that the professional values of female and male nurses should be evaluated regularly in terms of different characteristics such as education level, unit of work, type of institution, and working conditions.

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