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ORIGINAL PAPER

EVALUATION OF TURKISH NURSES' ATTITUDES TO WORKPLACE INCIVILITY

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Abstract

Aim: This study was carried out with the aim of evaluating the attitudes of nurses to workplace incivility. *Design:* A cross-sectional study. *Methods:* This study was implemented with the participation of 195 nurses working in a hospital in southeastern Turkey. The Nurse Information Form and Nursing Incivility Scale were used as data collection tools. *Results:* When the total scores for the scale were compared in terms of the working hours of the participants, it was found that those working only night shifts had higher scores than those working only during daytime hours ($p = 0.036$). A total of 43.6% of the participants thought that their colleagues' attitudes towards them were uncivil. When this situation was evaluated in terms of total scale scores, it was found that participants who felt that they were being treated uncivilly had higher scores ($p = 0.030$). *Conclusion:* Nurses were exposed to incivility in the work environment due to stressors such as insufficient number of nurses on wards and the pattern of shifts. Nurses who felt they were being treated uncivilly had higher incivility scale scores.

Keywords: nursing, Nursing Incivility Scale, Turkish nursing, uncivil behavior, workplace incivility, workplace rudeness.

Introduction

Workplace incivility, which is regarded as a work stressor, is defined as "low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (Demsky et al., 2019). It is estimated that 98% of employees experience uncivil behavior at least once a week. The monetary cost for organizations of workplace incivility to employees is estimated to be $14,000 per employee per year (Cho et al., 2016). These statistics are worrying, since such behaviors affect many employees and have a huge financial effect on the organizations they work for. Furthermore, human costs incurred by employees exposed to workplace incivility are quite significant.

Uncivil behavior is characterized by rudeness and disrespect towards others (Schilpzand et al., 2016), and in the workplace, incivility is manifested in both explicit and implicit behaviors. Explicit uncivil behaviors are easily noticeable disrespectful and rude behaviors such as humiliating, ignoring, and making sarcastic comments about co-workers, being unresponsive to co-workers' wishes and needs, interfering in co-workers' private lives, not greeting co-workers, and threats, shouting, and aggression aimed at co-workers. In contrast, implicit behaviors are invisible or less visible, such as arriving late for meetings, belittling others' views, conveying false information, excluding others from social activities, etc. (Ricciotti, 2016; Schilpzand et al., 2016). All such negative behaviors have the underlying intention of harming others; with this intention revealing itself more obviously in some cases more than others, and with the amount of harm inflicted greater or lesser, depending on the type of behaviors exhibited (Cho et al., 2016; Demsky et al., 2019).

Incivility is not just a problem for individuals; it also affects business models in work environments, reducing efficiency (Huang & Lin, 2019). Spiri et al. (2017), link uncivilized workplace climates to decreased performance in the workplace. These incidents not only exert a serious effect on nurses' well-being but also reduce their ability to provide patient care. (Alshehry et al., 2019; Spiri et al., 2017). It can prevent nurses, the backbone of the healthcare team, from evaluating patients in a holistic way, and disrupt their efforts to fulfill their basic duties, such as patient care and administration of drugs. Nurses exposed to incivility may waste time dwelling on the uncivil behaviors they have encountered and developing defense mechanisms against these behaviors, causing them to lose focus on their work, increasing their work stress, and reducing their performance and energy levels (Armstrong, 2017; Vagharseyyedin, 2015). In addition to its work-related effects, workplace incivility causes additional

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adverse effects, such as physical ailments, migraines, anxiety, depression, cognitive dissonance, excessive worry, stress, work-family conflict (Carter & Loh, 2017; Shi et al., 2018), desire for disproportionate revenge, slander, and defamation and additionally, it damages interpersonal communication, feelings of trust, and team performance (Logan, 2016), all of which can cause a decrease in the quality of patient care, an increase in care costs, various health problems in nurses, a decrease in job satisfaction and job commitment, aggression, violence, and quitting from the job (Ricciotti, 2016).

By their nature, implicit uncivil behaviors can be difficult to identify and distinguish. Nurse supervisors, in particular, should be aware of the concept of incivility, be alert to its manifestations in team members, and develop effective ways to discourage it.

Aim

The aim of the study was to evaluate the attitudes of nurses to workplace incivility.

Methods

Design

A cross-sectional study.

Sample

The study was implemented in a training and research hospital in southeast Turkey, between August and September, 2019. Three hundred and fifty nurses were employed in the hospital, which had a bed capacity of 1,026. The nurses worked 40–84 hours per week. The working hours of nurses varied in accordance with their position and patient load in the clinics where they worked. The data for the study was collected from 195 nurses who volunteered to participate in the study, and represented 55.71% of the nurses within the study period. With reference to the study by Bolat and Özmen (2019), the sample size was calculated before the data collection phase using G*Power-3.1.9.2 with a power of 80%. Nurses' demographic characteristics affecting their Nursing Incivility Scale (NIS) mean scores, such as age, gender, and job position, were evaluated, and a t-test was used in the statistical analyses. Accordingly, the sample of the study was calculated as 216 nurses, with an effect size of 0.34, an alpha value of 0.05, and a theoretical power of 80%. In the post hoc power analysis, the effect size was calculated at 0.37, and the theoretical power at 81%, based on calculations performed with an alpha value of 0.05.

The research questions formulated were: "What is the NIS score of nurses?", "Do nurses experience uncivil behaviors?", and "What are the factors affecting nurses' perception of incivility?".

Data collection

In the study, the Nurse Information Form, which was created based on the literature review and the NIS, adapted for Turkish use by Bolat E. in 2018, were used as the data collection tools, after permission was received from the authors who carried out the Turkish validity and reliability study of the NIS.

Nurse Information Form: The form based on the literature review (Alshehry et al., 2019; Warrner et al., 2016) carried out by the researchers, contains twelve questions on demographic data such as age, gender, marital status, educational status, professional experience (in years), duration of employment in the current position, the clinic where the nurse works, shifts, and job position.

Nursing Incivility Scale: Burnfield et al. (2004) developed the 53-item Multidimensional Incivility Scale (MIS) in 2004 for general use in all professions. The MIS was transformed into an occupation-specific scale, that is, the NIS, by Guidroz et al. (2010) in the United States in 2010. The original scale consists of 43 items divided into five sub-dimensions based on the source of incivility (Nurse incivility, Patient / Visitor incivility, Nurse supervisor incivility, Physician incivility, and General incivility).

However, in a study to test the validity and reliability of the Turkish version of the NIS, factor analysis revealed that there should be six sub-dimensions for the Turkish context (Nurse incivility, Patient / Visitor incivility, Nurse supervisor incivility, Physician incivility, General incivility – hostile attitudes, General incivility – inappropriate attitudes). The NIS is a five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree). The score range for the scale is 43–215. Higher scores represent greater exposure to uncivil behaviors. In their validity and reliability study, Guidroz et al. (2010) reported Cronbach's alpha values ranging between 0.81 and 0.94, whereas the Turkish Validity and Reliability study by Bolat and Özmen (2019) reported them within the range of 0.75–0.90. In this study, they were between 0.89 and 0.94.

Data analysis

International Business Machines (IBM) Statistical Package for the Social Sciences (SPSS) Statistics for Windows, Version 22.0, Armonk, NY: IBM Corp. was used in the statistical analyses. The normality of the data was assessed using the Shapiro-Wilk Test.

In the descriptive statistics, mean ± standard deviation (SD) and median (Interquartile range [IQR] with a confidence interval of 95%) were used to express the continuous numerical variables, while number (n) and percentage (%) were used to express the categorical variables. Student's t-test and one-way ANOVA were used to compare the mean scale scores of two independent groups and three or more groups, respectively. Linear Regression analysis was used to identify predictors of nurses' workplace incivility. Statistical significance was set at $p < 0.05$.

Results

Of the nurses participating in the study, 81% were female, 65.6% were married, and 70.8% had a bachelor's degree. The mean age was 31.09 (± 5.82) years (min. = 20; max. = 49). Over a third of participants (33.8%) had more than ten years of professional experience; 85.6% were ward nurses; 47.2% worked in specific clinics, such as intensive care emergency room, and operating room; and 64.1% worked night / daytime shifts (Table 1). Over two-thirds (68.2%) of the participants stated that they had entered the nursing profession willingly, and 25.6% stated that they had freely chosen the ward they worked in. A total of 56.4% were satisfied with their colleagues' attitude towards them, while 45.6% wished to quit nursing (Table 1).

Table 2 gives the descriptive statistical results and Cronbach's alpha coefficients for the NIS scale and its sub-dimensions. The nurses' mean score for the scale was 110.61 (± 27.88). The Cronbach's alpha coefficients for the scale and all its sub-dimensions were within the range of 0.90–1.0.

The participants' scores for the NIS and its sub-dimensions did not significantly differ according to gender ($p > 0.005$). As can be seen in Table 3, nurses aged below 30 found their colleagues to be more uncivil ($p = 0.035$), while nurses aged 30 and above found patients and visitors to be more uncivil ($p = 0.045$).

It was found that nurses' scores for the sub-dimension "General incivility-inappropriate attitudes" significantly differed depending on their educational status ($p = 0.033$). Further analysis revealed that nurses with a bachelor's degree were more sensitive to uncivil behaviors than those with education below bachelor's degree. As can be seen in Table 4, the mean scores for the sub-dimension "Nurse supervisor incivility" significantly differed according to professional experience. Following Bonferroni correction, the mean score for nurses with a professional experience of less than one year (mean = 22.53 [± 9.27]) was higher than for those with a professional experience of 1–5 years (mean = 16.11 [± 7.27]) and 5–10 years (mean = 16.13 [±7.15]) ($p = 0.039$).

Nurses who felt they were being treated uncivilly were found to have higher scores for the overall scale and its sub-dimension: "Nurse supervisor incivility" ($p = 0.030$, and $p = 0.046$, respectively).

Table 1 Distribution of the nurses' descriptive characteristics (n = 195)

Descriptive characteristics		n (%)
Gender	female	158 (81.0)
	male	37 (19.0)
Educational status	below bachelor's	31 (15.9)
	bachelor's degree	138 (70.8)
	above bachelor's	26 (13.3)
Professional experience (in years)	less than 1 year	13 (6.7)
	1–5 year	43 (22.1)
	6–10 years	73 (37.4)
	more than 10 years	66 (33.8)
Job position	ward nurse	167 (85.6)
	nurse supervisor	28 (14.4)
Unit	internal medicine	31 (15.9)
	clinics	44 (22.6)
	surgical clinics	92 (47.2)
	specific clinics management	28 (14.3)
Shift	always at night	2 (1.0)
	always during the daytime	68 (34.9)
	night / daytime shifts	125 (64.1)
Did you choose your profession willingly?	yes	133 (68.2)
	no	62 (31.8)
Did you choose the clinic you work for willingly?	yes	50 (25.6)
	no	145 (74.4)
Do you like your colleagues' attitude towards you?	yes	110 (56.4)
	no	85 (43.6)
Are you thinking about quitting the job?	yes	89 (45.6)
	no	106 (54.4)
Is the number of nurses in your clinic sufficient?	sufficient	31 (15.9) 164
	insufficient	(84.1)
Age (years)	**mean ± SD**	31.09 ± 5.82
	min.	20
	max.	49

min. – minimum; max. – maximum; SD – standard deviation

Table 2 Descriptive statistics for the NIS and its sub-dimensions (n = 195)

NIS Sub-Dimensions	Number of items	mean ± SD	min.	max.	Cronbach's alfa coefficient
Nurse incivility	10	25.70 ± 8.69	10	48	0.914
Patient / Visitor incivility	10	28.11 ± 9.68	10	50	0.928
Nurse supervisor incivility	7	16.76 ± 7.59	7	35	0.945
Physician incivility	7	15.74 ± 7.16	7	25	0.946
General incivility hostile attitudes	5	14.13 ± 5.01	5	25	0.923
General incivility nappropriate attitudes	4	10.14 ± 4.02	4	20	0.899
NIS total score	43	110.61 ± 27.88	43	174	0.943

min. – minimum; max. – maximum; SD – standard deviation

Table 3 Comparison of nurses' mean scores for the NIS and its sub-dimensions in terms of some socio-demographic characteristics (n = 195)

Descriptive characteristics	Nurse incivility mean ± SD Test p-value	Patient / Visitor incivility mean ± SD Test p-value	Nurse supervisor incivility mean ± SD Test p-value	Physician incivility mean ± SD Test p-value	General incivility hostile attitudes mean ± SD Test p-value	General incivility inappropriate attitudes mean ± SD Test p-value	Total NIS score mean ± SD Test p-value
Gender							
female	25.39 ± 8.65	28.28 ± 9.73	16.93 ± 7.76	15.63 ± 6.97	13.99 ± 4.97	10.23 ± 4.10	110.48 ± 27.90
male	27.07 ± 8.88 t = 1.025 p = 0.307	27.37 ± 9.57 t = 0.512 p = 0.610	16.05 ± 6.89 t = 0.630 p = 0.529	16.21 ± 8.02 t = 0.440 p = 0.661	14.72 ± 5.23 t = 0.803 p = 0.423	9.75 ± 3.69 t = 0.648 p = 0.518	111.16 ± 28.17 t = 0.133 p = 0.834
Age							
30 years and below	27.01 ± 9.32	26.81 ± 9.97	16.69 ± 8.00	15.68 ± 7.56	13.62 ± 5.17	9.74 ± 3.84	109.00 ± 30.36
over 30 years	24.39 ± 7.85 t = 2.120 p = 0.035*	29.42 ± 9.24 t = 1.892 p = 0.045*	16.83 ± 7.20 t = 0.129 p = 0.897	15.81 ± 6.77 t = 0.127 p = 0.899	14.64 ± 4.82 t = 1.434 p = 0.153	11.12 ± 3.99 t = 3.475 p = 0.001*	112.23 ± 25.12 t = 0.810 p = 0.419
Educational status							
below bachelor's[a]	26.61 ± 9.57	25.48 ± 10.25	18.12 ± 9.37	14.90 ± 7.55	12.70 ± 5.96	8.54 ± 4.74	106.38 ± 36.67
bachelor's degree[b]	25.56 ± 8.44	28.91 ± 9.34	16.57 ± 7.50	16.22 ± 7.11	14.36 ± 4.68	10.57 ± 3.92	112.22 ± 24.91
above bachelor's[c]	25.38 ± 9.23 f = 0.203 p = 0.817	27.00 ± 10.46 f = 1.800 p = 0.168	16.11 ± 5.53 f = 0.633 p = 0.532	14.23 ± 6.96 f = 1.104 p = 0.334	14.61 ± 5.40 f = 1.521 p = 0.221	9.73 ± 3.18 f = 3.462 p = 0.033* (a–b, c)**	107.07 ± 31.07 f = 0.794 p = 0.454

**p < 0.05 statistical significant; **Bonferoni correction, the statistically significant differences were indicated using the superscripts "a, b, c"; f – One Way Anova Test; NIS – Nursing Incivility Scale; SD – standard deviation; t – Student's t-test*

Total NIS scores differed significantly according to job position (p = 0.035). Nurses working in nurse supervisor positions found patients more uncivil (p = 0.017), and their total scores for the scale were higher than those of ward nurses.

The total scores for the overall scale and its sub-dimension "Patient / Visitor incivility" differed significantly according to shifts (p = 0.040; and p = 0.024, respectively). In the Post Hoc analysis carried out to identify the source of this difference, it was found that the total scores for the overall scale (141.50 [± 45.96]) and its sub-dimension "Patient / Visitor incivility" (45.50 [± 6.36]) were higher in nurses working only nights than in those working only days or working a combination of night / daytime shifts.

Multiple linear hierarchical regression analysis was performed in order to explore the effect of descriptive features of nurses on mean NIS and subscale scores. In the first model, factors significantly negatively predicting mean total NIS score were: Do you like your colleagues' attitude towards you? = yes; Shift = always during the daytime; and Job position = ward nurse. The significance level of the F value reveals the statistical significance of the model (f = 4.935, p < 0.003). Beta coefficients, t values, and significance level of independent variables show that

factors of the model Do you like your colleagues' attitude towards you? = yes; Shift = always during the daytime; and Job position = ward nurse, have a statistically significant impact on mean total of NIS scores (respectively, t = -2.278, p = 0.024; t = -2.965, p = 0.003; t = -2.205, p = 0.029). Factors of the model explain 5.2% of the variance in scores (Adjusted $R^2 = 0.052$).

In the given model, factors significantly negatively predicting mean "Nursing incivility" sub-dimension scores were found to be: Is the number of nurses in your clinic sufficient? = insufficient; Do you like your colleagues' attitude towards you? = yes; Did you choose the clinic you work for willingly? = yes (f = 5.769, p < 0.001). Insufficient staffing of nurses in the clinic statistically significantly increased the mean "Nursing incivility" sub-dimension scores, while the factors Do you like your colleagues' attitude towards you? = yes; and Did you choose the clinic you work for willingly? = yes statistically significantly decreased the mean "Nursing incivility" sub-dimension scores (respectively, t = 2.798, p = 0.006; t = -2.144, p = 0.003; t = -2.014, p = 0.045). Factors of the model explain 6.4% of the variance in "Nursing incivility" sub-dimension scores (Adjusted $R^2 = 0.064$).

In the model, the factors predicting "Patient / Visitor incivility" sub-dimension were found to be: Shift = always at night; Shift = always during the daytime; Job position = nurse supervisor; Educational status = bachelor's degree (f = 5.769, p < 0.001). Working only night shifts, being a nurse supervisor, and having bachelor degree level education increased mean "Patient / Visitor incivility" sub-dimension scores, and working only day shifts decreased mean "Patient / Visitor incivility" sub-dimension scores (respectively, t = 2.491, p = 0.014; t = 3.442, p = 0.001; t = 1.998, p = 0.048; t = -2.326, p = 0.021). The model obtained from the regression analysis explains 9% of the variance in mean "Patient / Visitor incivility" sub-dimension scores (Adjusted $R^2 = 0.090$).

Table 4 Comparison of nurses' mean scores for the NIS and its sub-dimensions in terms of characteristics associated with work and profession (n = 195)

Descriptive characteristics	Nurse incivility mean ± SD Test p-value	Patient / Visitor incivility mean ± SD Test p-value	Nurse supervisor incivility mean ± SD Test p-value	Physician incivility mean ± SD Test p-value	General incivility hostile attitudes mean ± SD Test p-value	General incivility inappropriate attitudes mean ± SD Test p-value	Total NIS score mean ± SD Test p-value
Shifts							
always during the daytime[a]	24.20 ± 7.58	27.05 ± 10.16	15.36 ± 7.00	14.67 ± 7.39	13.48 ± 5.00	10.10 ± 4.37	104.89 ± 29.08
always at night[b]	27.00 ± 8.48	45.50 ± 6.36	23.50 ± 3.53	18.00 ± 15.55	17.00 ± 11.31	10.50 ± 0.70	141.50 ± 45.96
night / daytime[c]	26.50 ± 9.21	28.40 ± 9.21	17.41 ± 7.84	16.29 ± 6.91	14.44 ± 4.93	10.16 ± 3.87	113.22 ± 26.49
	f = 1.568	f = 3.791	f = 2.429	f = 1.227	f = 1.129	f = 0.012	f = 3.779
	p = 0.211	p = 0.024* (b–a, c)**	p = 0.091	p = 0.295	p = 0.325	p = 0.988	p = 0.040* (b–a, c)**
Job position							
ward nurse	26.08 ± 8.73	27.49 ± 9.31	16.96 ±7.65	15.60 ± 7.10	13.90 ± 5.04	10.08 ± 4.07	109.87 ± 27.80
nurse supervisor	23.32 ± 8.36	32.40 ± 10.64	17.24 ± 7.50	16.36 ± 7.45	15.64 ± 4.32	10.64 ± 3.79	115.60 ± 26.22
	t = 1.487	t = 2.400	t = 0.333	t = 0.493	t = 1.631	t = 0.642	t = 0.967
	p = 0.139	p = 0.017*	p = 0.740	p = 0.623	p = 0.105	p = 0.521	p = 0.035*
Professional experience (in years)							
less than 1 year[a]	30.53 ± 6.46	30.07 ± 8.45	22.53 ± 9.27	17.30 ± 6.62	12.23 ± 4.10	9.38 ± 3.84	122.07 ± 29.30
1–5 years[b]	27.20 ± 10.20	28.90 ± 10.12	16.11 ± 7.27	14.60 ± 6.46	14.55 ± 5.20	9.09 ± 3.84	110.48 ± 28.48
5–10 years[c]	24.91 ± 8.64	27.27 ± 10.27	16.13 ± 7.15	16.00 ± 7.25	13.64 ± 4.88	10.05 ± 4.07	108.02 ± 28.81
more than 10 years[d]	24.65 ± 7.75	28.13 ± 9.02	16.74 ± 7.62	15.90 ± 7.64	14.77 ± 5.14	11.07 ± 4.00	111.28 ± 26.14
	f = 2.335	f = 0.454	f = 2.852	f = 0.608	f = 1.322	f = 2.368	f = 0.954
	p = 0.075	p = 0.715	p = 0.039* (a–b, c, d)**	p = 0.611	p = 0.268	p = 0.072	p = 0.415
Do you like your colleagues' attitude towards you?							
yes	24.60 ± 7.80	27.24 ± 9.44	15.80 ± 7.64	15.21 ± 6.83	13.88 ± 4.84	10.04± 4.07	106.80 ± 2 6.67
no	27.14 ± 9.59	29.23 ± 9.92	18.00 ± 7.40	16.43 ± 7.55	14.45 ± 5.24	10.27 ± 3.98	115.54 ± 28.78
	t = 2.039	t = 1.427	t = 2.012	t = 1.177	t = 0.796	t = 0.386	t = 0.457
	p = 0.043*	p = 0.155	p = 0.046	p = 0.241	p = 0.427	p = 0.700	p = 0.030*

**p < 0.05 statistical significant; **Bonferoni correction, the statistically significant differences were indicated using the superscripts "a, b, c, d"; f – One Way Anova Test; NIS – Nursing Incivility Scale; SD – standard deviation; t – Student's t-test;*

The factor negatively predicting the mean "Nurse supervisor incivility" sub-dimension score was: Do you like your colleagues' attitude towards you? = yes, (Model f = 4.049, p < 0.001; t = -2.012, p = 0.046) and it explains 1.5% of the variance in this subscale (Adjusted $R^2 = 0.015$).

There was no factor predicting mean "Physician incivility" sub-dimension scores, while "Age", and "Shift" = always during the daytime predicted mean "General incivility hostile attitudes" sub-dimension scores, and "Age" predicted mean "General incivility inappropriate attitudes" sub-dimension scores. Increase in age significantly positively increased mean scores of both subscales (respectively, [Model p = 0.020, f = 5.547, $R^2 = 0.028$, Adjusted $R^2 = 0.023$, Durbin Watson = 2.066], [Model p = 0.020, f = 10.960, $R^2 = 0.054$, Adjusted $R^2 = 0.049$, Durbin Watson = 2.030]) (Table 5).

Table 5 Evaluation of factors affecting the mean scores of NIS and its sub-dimensions by linear multiple hierarchic regression analysis (n = 195)

Independent variable	B	β	SE	t	p-value
Depended variable: nurse incivility sub-dimension (model p < 0.001; f = 5.385; $R^2 = 0.030$ adjusted $R^2 = 0.064$; Durbin Watson = 1.884)					
constant	28.258		1.225	23.066	< 0.001**
Is the number of nurses in your clinic sufficient? = sufficient	-4.652	0.196	1.662	2.798	0.006*
Do you like your colleagues' attitude towards you? = yes	-2.651	-0.152	1.236	-2.144	0.003*
Did you choose the clinic you work for willingly? = yes	-2.631	-0.141	1.306	-2.014	0.045*
Dependent variable: patient/visitor incivility sub-dimension (model p < 0.001; f = 5.769; $R^2 = 0.108$ adjusted $R^2 = 0.090$; Durbin Watson = 2.033)					
constant	26.152		1.335	19.593	< 0.001**
shift = always at night	16.437	0.171	6.599	2.491	0.014*
shift = always during the daytime	-3.581	0.265	1.539	-2.326	0.021*
job position = nurse supervisor	7.653	-0.177	2.198	3.482	0.001**
educational status = bachelor's degree	2.910	0.137	1.464	1.988	0.048*
Dependent variable: nurse supervisor incivility sub-dimension (model p < 0.001; f = 4.049; $R^2 = 0.143$ adjusted $R^2 = 0.015$; Durbin Watson = 2.015)					
constant	18.00		0.818	22.011	< 0.001**
Do you like your colleagues' attitude towards you? = yes	-2.191	-0.143	1.089	-2.012	0.046*
Dependent variable: general incivility hostile attitudes sub-dimension (model p = 0.020; f = 5.547; $R^2 = 0.028$ adjusted $R^2 = 0.023$; Durbin Watson = 2.066)					
constant	9.658		1.933	4.996	< 0.001**
age	0.144	0.261	0.061	2.355	0.020*
shift = always during the daytime	-2.215	-0.211	0.819	-2.706	0.007*
Dependent variable: general incivility inappropriate attitudes sub-dimension (model p = 0.020*; f = 10.960; $R^2 = 0.054$ adjusted $R^2 = 0.049$; Durbin Watson = 2.030)					
constant	5.159		1.532	3.368	< 0.001**
age	0.160	0.232	0.048	3.321	< 0.001**
Dependent variable: nursing incivility scale total (model p = 0.003*, f = 4.935, $R^2 = 0.072$ Adjusted $R^2 = 0.052$, Durbin Watson = 2.130)					
constant	132.252		6.915	19.126	< 0.001**
Do you like your colleagues' attitude towards you? = yes	-8.998	-0.169	3.950	-2.278	0.024*
shift = always during the daytime	-13.425	-0.230	4.528	-2.965	0.003*
job position = ward nurse	-13.571	-0.171	6.154	-2.205	0.029*

**p < 0.05; **p < 0.001 statistical significance; β – standardized Beta; B – unstandardized Beta; f – One Way Anova Test; SE – standard error; t – Student's t-test*

Discussion

This study was carried out with the participation of 195 nurses in order to examine the perceptions of nurses, the most active members of the healthcare sector, towards workplace incivility, and to identify how their demographic characteristics influenced their perceptions; as a result, their mean total score for NIS was found to be 110.61 (± 27.88). Following the literature review, the mean total score for the NIS

and its sub-scales in our study was lower than in certain studies (Bolat & Özmen 2019), whereas it was slightly higher than in others (Alshehry et al., 2019; Warrner et al., 2016). This could be explained by differences in working groups, culture, or climate of the working environment.

Nursing incivility differs according to certain characteristics of nurses and the workplace environment. In the literature, some studies report that it is young employees who experience co-worker and nurse supervisor incivility (Smith et al., 2018). Additionally, it is reported that nurses are exposed to uncivil behaviors from individuals in hierarchically superior and more powerful positions, or from individuals encouraged by their superiors (Torkelson et al., 2016). In the present study, while nurses aged below 30 felt that their colleagues were uncivil, those aged 30 and above felt that patients and visitors were uncivil. Bolat and Özmen (2019) reported that the NIS mean score for nurses below 40 was higher than for those aged 40 and above. This may stem from the fact that young and newly graduated nurses are more attentive, polite, and respectful towards older nurses, whereas older nurses (tending to regard themselves as hierarchically superior) have the self-confidence of being experienced and senior in the workplace (a situation specific to Turkish culture) and may thus ignore uncivil behaviors towards young nurses or regard these behaviors as a normal part of the learning curve in the profession. This finding is striking and significant. Even when the level of incivility is mild, there is a risk it might escalate into more serious violent behavior patterns. Interactions may escalate from low intensity to behaviors with explicitly harmful intentions. Incivility from hierarchically higher ranking individuals affects the whole organization; third parties witnessing the incivility adopt these behaviors and pass them outwards in a ripple effect, increasing exponentially throughout the organization. A nurse supervisor displaying uncivil behaviors can be a negative role model, souring the climate of whole organization (Torkelson et al., 2016). Systematic reviews on workplace incivility report that exposure to uncivil behaviors affects not only the quality of the service of individual employees but also the quality of the end product of the organization (Vasconcelos, 2020). A result of incivility in healthcare services is to degrade the quality of patient care and endanger patient safety (Crawford et al., 2019).

Regression analysis results of "Nurse incivility" sub-dimensions suggest that sufficient staffing of nurses in clinics, giving nurses a choice of clinic, and mutually positive attitudes among colleagues, lead to a decrease in nurse incivility. All these factors contribute to the development of a positive work environment for nurses, promote the quality of nursing care (Warrner et al., 2016), and play a key role in the process of minimizing nurse incivility.

In this study, nurses with education below bachelor degree level were found to perceive less "General incivility / inappropriate attitudes" than bachelor degree educated nurses. In a study carried out on a sample of 120 nurses, Kutlu and Bilgin (2017) also found that nurses with education lower than bachelor degree level had lower "General incivility / onappropriate attitudes" sub-dimension scores than those with a bachelor's degree. However, Bambi et al. (2018) indicated that nurse education level is not a related factor of lateral violence and uncivil behaviors among nurses in clinical settings. However, Zhang et al. (2018) reported that differences in education level in workplace incivility scores were statistically significant. In addition, they indicate that nurses with higher education degrees find there is a gulf between the theoretical and the actual workplace, and struggle when faced with the challenge to adapt to the new environment and organizational culture, with poor performance leading to admonition and workplace incivility. In this study, this may be due to the fact that nurses with an education lower than bachelor degree learn the profession through an apprenticeship to more experienced supervisors, rather than through higher education, and that professional and ethical values are not so readily embraced by those with a lower level of education. From the regression analysis exploring factors affecting the "General incivility / inappropriate attitudes" sub-dimensions as a dependent variable, it is apparent that as the age of nurses increases, the mean score of subscales also increases. The explanation for this may be that more experienced nurses, having spent many years in practice, are exposed to a greater workload and interact with many more individuals perpetrating uncivil acts. Some studies report an ambiguity in the casual relationship between age and workplace incivility, recommending more detailed research on this issue. However, there are also studies that suggest that the source of difference in the variables in relation to age is to be found in generational changes over the course of time (from baby boomers to generations X, Y, and Z) in culture, workplace culture, organizational support, interaction skills, and the job itself (Kwak, 2020).

Our study found that nurses with a professional experience of less than a year were exposed to nurse supervisor incivility more often than those with a professional experience of 1–5 and 5–10 years. This can be explained by the fact that senior nurses are

treated more respectfully by other team members, since they are better-equipped and have more professional knowledge and proficiency. A study conducted by Zhang et al. (2018) on new graduate nurses, reported frequent workplace incivility among inexperienced nurses, affecting working performance by weakening work skills, and leading to psychological problems in nurses. They suggest that managers in the workplace should act as a buffer to workplace incivility, thereby sustaining work performance.

In our study, the total scores for the overall scale and its sub-dimension "Patient / Visitor incivility" were higher in nurses only working night shifts than in those working only during the daytime. In addition, being a nurse supervisor, and having a bachelor's degree in nursing were found to be factors increasing exposure to "Patient / Visitor incivility". Previous studies have indicated that working nights increases the stress on the individual through sleep deprivation, fatigue and a worsening of the work-life balance (Bumin et al., 2019). As a result, nurses working only night shifts might be more sensitive to incivility. In addition, nursing involves one-to-one interaction with patients, and nurses work under stress due to many reasons such as work overload, uncertainty over treatments, understaffing, long working hours, and urgency of patient care. These underlying factors can lead to uncivil interactions during working hours. In Turkey, the role of nurse supervisor has clear negative aspects. Nurse supervisors are the individuals who face the complaints and requests of management, physicians, practitioner nurses, patients, and relatives of patients. In all these interactions, nurse supervisors may be exposed to increased workplace incivility (similarly to nurses working night shifts).

Our study found that nurses in supervisory positions were more exposed to incivility, perceiving patients to be the most uncivil. Alshehry et al. (2019) state that nurses are most often exposed to "Nurse supervisor incivility", which may be explained by cultural factors. Similarly, in the study by Bolat and Özmen (2019), the incivility scores of ward nurses were found to be higher than those of nurse supervisors. An alternative explanation for this may be that nurse supervisors are more involved in administrative work than patient care, increasing their job stress, and in turn, making them more sensitive to incivility. To reduce the challenges faced by nurse supervisors, hospital management should set clear policies and procedures designed to help nurse supervisors address their colleagues' recalcitrance (Hoffman & Chunta, 2015). Furthermore, the uncivil behaviors displayed by patients, their relatives, and employees in other disciplines should also be monitored, and the climate of the working environment should be improved. It should be remembered that an uncivil working environment affects every member of the healthcare team in a chain reaction.

The study also found that the nurses who felt that their colleagues were treating them uncivilly had a higher NIS mean score. Chana et al. (2015) reported that nurses' emotional well-being positively affected their caring behaviors and the quality of the care they provided. One factor that can ensure the well-being of nurses is their colleagues' attitude towards them. Risk groups should be identified and various positive communication methods should be applied to solve the problem of workplace incivility and to turn the working environment into a place that minimizes nurses' stress, prioritizes quality of care, discourages rumor and gossip mongering, and refuses to tolerate uncivil behaviors (Smith et al., 2018). Lower NIS scores for nurses who are satisfied with the behaviors of their colleagues, work only daytime shifts, and work in their chosen clinics suggests a relationship between these factors and mean total NIS scores. In addition, the lower work stress and workload of nurses working daytime shifts may be explained by the fact that nurses working nights interact with more patients, patient relatives, nurse supervisors, and physicians on their shifts. Additionally, nurses who work night shifts may not have much opportunity to feel part of a team since they are too few to form one. Effective team work is associated with lower stress levels among healthcare workers as a result of greater role clarity, social support, and being buffered by their teams from negative organizational factors. Effective teams influence patients and caregivers through a process of "emotional contagion". This in turn builds confidence and positivity in the affective environment, thereby reducing the likelihood of hostility and frustration (Logan, 2016; West & Markiewicz, 2016).

Limitation of study

This study was carried out at a single center; therefore, the results achieved in this study cannot be generalized to the population as a whole. The study was not designed to be experimental or observational, being limited to statements from nurses. Moreover, only scale scores and quantitative results were obtained, since it was not a mixed method study in which open-ended questions were used. Future studies could be supported with qualitative research in which in-depth interview methods could be used.

Conclusion

The study found that young nurses, nurses working night shifts, those with a bachelor's degree, and those working in nurse supervisor positions were exposed to more incivility. A working environment should be established in which incivility is not tolerated, and the negative consequences of incivility should be explained to both employees and managers through trainings. Supervisor nurses should establish a motivating and fair working environment for new nurses. They can establish an organizational climate that encourages civil behaviors and provides collective support and social incentives to protect employees from being the target of incivility. An informal social network can create positive relationships among employees.

Workplace incivility has devastating effects on employees, institutions, and patients, but is often ignored. If nurses are treated uncivilly by physicians, nurse supervisors, or other nurses, they may limit their communication with their co-workers, and, as a result, reduce the information-sharing vital for patient care. This may prevent effective patient care, prolonging the discharge process, causing difficulties for patients waiting to be admitted, and increasing costs. It may not be possible to create a workplace completely free from incivility in the healthcare sector, involving as it does very intense interactions; however, awareness can be raised and, thus, negative interactions minimized. It is recommended that future studies be carried out with a larger sample, and that they focus on interventions which will positively affect the working environment.

Ethical aspects and conflict of interest

The study was commenced after the required permissions were received from the Non-Interventional Research Ethics Committee (Date: 14. 06. 2019, Decision No: 2019/59), the Faculty of Health Sciences, Hasan Kalyoncu University, and from the Chief Physician of the Research and Application Hospital, where the study was conducted. The study adhered to the ethical guidelines set out in the Declaration of Helsinki. All nurses participating in the study were informed about the study, their written/verbal consents were obtained, and they were also informed that they could leave the study at any time. The authors declare that they have no conflict of interests.

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Author contributions

Concept and design (ED, BT, SA), data collecting (SA), data analysis and interpretation (ED, BT), drafting manuscript (ED, BT), critical revision of manuscript (BT), final approval and accountability (ED, BT, SA), supervision (BT).

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