Original Article

The Compassion Levels of Intensive Care Nurses: A Pilot Study

Yildiz Denat, PhD

Associate Professor, Aydin Adnan Menderes University, Nursing Faculty, Department Of Fundamentals of Nursing, Aydin, Turkey

Ebru Tanrikulu, MSc

Nurse, Ankara Bilkent City Hospitals Neurology Orthopedics Tower Surveillance Unit, Ankara, Turkey

Correspondence: Yildiz Denat, PhD, Associate Professor, Nursing Faculty, Aydin Adnan Menderes University, Aydin, Turkey. e-mail: denat09@gmail.com

Abstract

Objectives: This study aims to determine the levels of compassion of nurses working in the intensive care unit and the factors affecting these levels.

Materials and Methods: The study has an analytical cross-sectional design. The sample of the study consists of 129 intensive care nurses working in the intensive care units of a public hospital in the capital city of Turkey. The data were collected using an "Information Form" and the "Compassion Scale" and were assessed using a t-test, one-way ANOVA test in independent groups and the Spearman correlation test.

Results: The compassion score of the intensive care nurses was 96.29 ± 12.81 . A significant negative relationship was found between the nurses' ages and their total compassion scores and indifference, common humanity, and separation subscale scores (p<0.05). In addition, significant differences were found in total mean compassion scores and mean separation subscale scores according to gender and in the mean separation subscale scores according to the status of having chosen the nursing profession willingly (p<0.05).

Conclusion: The compassion levels of the intensive care nurses were quite high. In addition, compassion was found to be associated with age. Likewise, gender and having chosen the profession willingly were determined to affect compassion.

Keywords: Compassion, Ethics, Intensive Care Nursing, Nursing, Nursing Care,

Introduction

Compassion, which is considered а fundamental value in care in recent years (Schantz, 2007; Harrison, 2009), significantly influences the quality of nursing care and is an indispensable element of patient-centered care (Dewar et al., 2014; Burnell, 2011). The literature emphasizes that compassionate care practices positively affect symptom management in operating rooms, surgical clinics, intensive care units, and other longterm care settings (Ugurlu & Eti Aslan, 2017). Among all units, the intensive care unit is the one where it is vital to maintain quality nursing care, patient autonomy is low or does not exist, trauma, pain, and suffering processes are intense, and decisions are made between life and death (Bridges et al., 2013). The critical condition of patients and the

presence of various and complex technological equipment in intensive care units seem to add different dimensions to nursing care and nurses' priorities (Bagherian et al.,2017). In such environments, the critical condition of patients leads nurses to prioritize meeting physical needs and saving patients' lives (Beeby, 2000). Focusing attention on the diagnosis and treatment of the disease leads nurses to follow the medical model, while care values and attitudes may be neglected or even overlooked (Alliex & Irurita, 2004). For most patients, intensive care experience is often associated with developing profound physical weakness that can persist for years after discharge. Likewise, the persistence of the negative psychological impact and psychological morbidity that such patients often encounter during their care is a widely

accepted fact today. During the intensive care process, compassion may be suppressed by the demand for technical interventions and the need for an increased ability to perform them. Therefore, efforts should be made to humanize intensive care as much as possible. Intensive care nurses should balance technological capabilities with patients' wishes and expectations (Montgomery et al., 2017). Today, a lack of compassion is identified in caregiving, especially in units relying on high technology and requiring fast and critical decision-making (Francis, 2013; Thomas, 2015). Moreover, it is emphasized that many factors, especially intense and poor working conditions and bad workplace culture, can impede compassionate nursing care (Freshwater & Cahill, 2010; Curtis et al., 2012; Cinar & Eti Arslan 2018; de Zulueta, 2013). However, there are a limited number of studies on compassionate care and compassion levels of nurses working in operating rooms, palliative care units, and acute care settings, where patient autonomy is low or does not exist, trauma, pain, and suffering are intense, and the existing studies generally focus on compassion fatigue (Cinar, 2019; Cinar & Eti Arslan, 2018; Oruc et al., 2020; Fernando et al., 2018; Ives & Efstathiou, 2018; Jones et al., 2016; Dikmen et al., 2016). Notably, as special units where high technology is used and critical decisions are made for patient care and treatment, intensive care units can leave lasting physical and psychological marks on the patient. Nurses working in these units are expected to perform many roles together and be compassionate simultaneously. For all these reasons, it is necessary to determine the compassion levels of intensive care nurses and the factors affecting these levels and to plan improvement studies in line with the results to be obtained. This study aims to determine the levels of compassion of nurses working in the intensive care unit and the factors affecting these levels.

Methods

Study Design: This study is an analytical cross-sectional study.

Population and Sample: The research population consisted of 345 nurses working in intensive care units of a public hospital in the capital of Turkey. The sample size was calculated using the "G.Power-3.1.9.2"

software program before data collection. Accordingly, the study's effect size was determined as 0.67.¹⁸ Likewise, the minimum sample size was determined as 72 when the alpha value was taken as 0.05 and the power as 0.80. And it was calculated as 116 when the power was taken as 0.95. Considering that the data would be collected online and there would be a minimum data loss of 10%, the researchers did not go for sample selection but aimed to reach the whole population. The study was completed with 129 intensive care nurses who agreed to participate in the study and filled out the data collection forms.

Data Collection Tools: In the research, the data were collected using the "Information Form" prepared by the researchers and the "Compassion Scale."

Information Form: This form was prepared by the researchers in line with the literature Cinar, 2019; Cinar & Eti Arslan, 2018; Oruc et al., 2020; Fernando et al., 2018; Ives &Efstathiou, 2018; Jones et al., 2016; Dikmen et al., 2016). It consists of 16 questions about socio-demographic and professional characteristics and working conditions such as age, education, years of work as a nurse, type of the intensive care unit where the nurse works, duration of work in intensive care of the nurses

Compassion Scale: This scale, which measures the compassion felt towards others, was developed by Pommier (2011). Akdeniz and Deniz (2016) adapted the scale to Turkish and conducted its validity and reliability study with university students. Furthermore, Cinar and Eti Arslan (2018) conducted the validity and reliability study of the Turkish adaptation of the scale with operating room nurses. The "Compassion Scale" consists of 24 items and is a 5-point Likert-type scale (1=Never, 2=Rarely, 3=Occasionally, 4=Frequently, 5=Always). The scale consists of six subscales: kindness (6,8,16,24), indifference (2, 12, 14, 18),common humanity (11, 15, 17, 20),separation (3,5,10,22),mindfulness (4,9,13,21), and disengagement The (1,7,19,23).scale's indifference, separation, and disengagement subscales are calculated inversely. Then, the total mean score is calculated. The lowest score that can be obtained from the scale is 24, and the highest score is 120. The more the score obtained from the scale, the higher the level of compassion (Cinar & Eti Arslan, 2018). In the validity and reliability study by Cinar and Eti Arslan (2018), which was conducted with operating room nurses, the total Cronbach's Alpha value of the scale was determined to be 0.82, and the Cronbach's Alpha values of the subscales of the scale were found as 0.76 for kindness, 0.72 for indifference, 0.75 for common humanity, 0.71 for separation, 0.79 for mindfulness, and 0.81 for disengagement. In this study, the total Cronbach's Alpha value of the scale was determined as 0.89, and the Cronbach's Alpha values of the subscales of the scale were found to be 0.78 for kindness, 0.74 for indifference, 0.65 for common humanity, 0.74 for separation, 0.73 for mindfulness, and 0.67 for disengagement.

Data Collection Methods: The research was conducted between June and October 2021 in the intensive care units of a public hospital in the Turkish capital. The study data were collected online due to the COVID-19 pandemic. The data collection forms created online were sent to the nurses via the internet in cooperation with the intensive care coordinators and the intensive care head nurses of the relevant units. The purpose of the research was written clearly and comprehensibly at the top of the data collection form, and the researchers' contact information was also included. Furthermore, the nurses were invited to ask questions about unclear points, if any. The nurses who filled out the study questionnaire were considered to have given verbal consent. A questionnaire was sent to one nurse thrice at maximum. The nurses who did not respond for the third time was considered unwilling to nurse in the study.

Data Analysis: All statistical analyses were performed using SPSS 25.0 (IBM SPSS Statistics 25 software (Armonk, NY: IBM Corp.). Continuous variables were defined by the mean \pm standard deviation, and categorical variables were defined by number and percentage. The normal distribution of the data was assessed using skewness and kurtosis values. As the skewness and kurtosis values were between ± 2.00 , it was concluded that the data showed a normal distribution (George & Mallery, 2010). The data were evaluated using a t-test, one-way ANOVA test in independent groups and the Spearman correlation test. The statistical significance value was determined as p < 0.05.

Ethical Considerations: The study was approved by (approval date and number: 2021/260) Aydın Adnan Menderes University Nursing Faculty Non-Interventional Research Ethics Committee, and research permission was obtained from the institution where the study was conducted. Declaration of Helsinki was signed by all of the authors and presented to the ethics committee. In addition, permission was received from the relevant author to use the scale in the study. Finally, verbal consent was obtained from the nurses participating in the study.

Results

The mean age of the nurses participating in the study was 25.86±3.93. Of the nurses, 70.5% were women, 78.3% were single, 93.8% had a bachelor's degree, 55.8% perceived their income as equal to their expenses, 54% lived in a nuclear family, and 95.3% did not have children. The nurses' mean years of work as a nurse was 34.36±43.32 months, and their mean years of work in the intensive care unit was 29.59±37.46 months. In addition, 49.6% of the nurses were determined to work in the COVID-19 intensive care unit, 90.7% were on shift for 24 hours, and 77.0% provided care for two patients in one shift. Furthermore, 51.2% of the nurses reported that they had chosen the nursing profession willingly, and 55.0% reported that they were satisfied with working in the intensive care unit.

The mean scores obtained by the intensive care nurses from the compassion scale and its subscales are presented in Table 1.

The nurses' socio-demographic and professional characteristics were compared with their compassion and its subscale scores (Table 2). There was a statistically significant difference only in two variables. Statistically significant differences were observed in the total mean compassion scores and the mean separation subscale scores according to the gender of nurses (p < 0.05). Women were determined to have a higher total mean compassion score and mean separation subscale score than men. In addition, there was a statistically significant difference in the mean separation subscale score according to the status of having chosen the nursing profession willingly (p<0.05). In the further analysis conducted, the mean scores of those

who had willingly chosen the profession were determined to be significantly higher than the others (p<0.05).

The relationship between some characteristics of nurses and their compassion and subscales scores was examined (Table 3). There was a statistically significant relationship only in one variable. A significant negative relationship was found between the age of the nurses and their total mean compassion scores (r=-0.19, p=0.02), mean indifference subscale scores (r=-0.20, p=0.03), mean common humanity subscale scores (r=-0.18, p=0.03), and mean separation subscale scores (r=-0.20, p=0.01) (Table 3).

Descriptive characteristics	Mean	SD
Kindness	16.54	2.87
Indifference	15.96	2.98
Common Humanity	15.87	2.98
Separation	15.94	2.95
Mindfulness	15.86	2.78
Disengagement	16.10	2.89
Compassion Total Score	96.29	12.81

 Table 1. Descriptive Data On The Intensive Care

 Nurses' Compassion Scale And Subscales

SD: Standard deviation

	Compassion Scale and its Sub-Factors														
Variables	Kindness		Indifference		Common humanity		Separation		Mindfulness		Disengagement		Total compassion score		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Gender															
Female	16.84	2.72	16.28	2.88	16.12	2.75	16.36	2.66	16.14	2.81	16.36	2.82	98.10	11.65	
Male	15.84	3.15	15.18	3.12	15.28	3.44	14.94	3.38	15.18	2.61	15.50	3.01	91.94	14.50	
t	t=1.80		t=1.92		t=1.44		t=2.29		t=1.79		t=1.55		t=2.54		
р	p=0.07		p=0.05		p=0.15		p=0.02*		p=0.07		p=0.12		p=0.01*		
Marital status															
Married	15.75	3.75	15.46	2.92	15.75	4.03	15.71	2.83	15.21	3.96	16.28	2.85	94.17	14.66	
Single	16.76	2.56	16.09	3.00	15.91	2.64	16.00	2.99	16.03	2.35	16.05	2.92	96.17	14.66	
t	t=-1.34		t=-0.99		t=-0.19		t=-0.46		t=-1.05		t=0.36		t=-0.98		
_p	p=0.18		p=0.32		p=0.84		p=0.64		p=0.30		p=0.71		p=0.32		
Educational Status															
Associate	16.00	2.92	16.00	3.38	17.50	1.69	15.87	2.41	14.87	1.88	16.50	2.56	96.75	10.43	
Bachelor's level	16.58	2.88	15.95	2.97	15.76	3.02	15.95	2.99	15.92	2.82	16.08	2.92	96.26	12.99	
t	t=-0.54		t=0.03		t=1.59		t=-0.07		t=-1.03		t=0.39		t=0.10		
р	p=0.58		p=0.97		p=0.11 p=0.94			p=0.30		p=0.69		p=0.91			
Perceived Income-Expenditur	e Status														
Income More Than Expenses	15.95	3.05	15.40	3.56	15.70	2.67	15.35	3.54	15.20	2.94	15.75	3.29	93.35	15.77	
Income Equal to Expenses	16.68	2.74	16.09	2.93	15.91	3.11	16.13	2.57	16.04	2.58	16.23	2.90	97.11	11.97	
Income Less Than Expenses	16.59	3.07	16.00	16.00 2.79		15.89 2.97		15.89 3.31		15.86 3.09		16.05 2.71		96.29 12.81	
t	F=0.50		F=0.42		F=0.04		F=0.56		F=0.71		F=0.22		F=0.67		
р	p=0.60		p=0.65		p=0.96		p=0.57		p=0.49		p=0.79		p=0.51		
Family Type															
Living alone	16.61	2.84	16.13	3.13	15.98	2.93	15.71	3.19	15.88	2.50	15.71	3.14	96.03	12.94	
Living in a nuclear family	16.49	2.92	15.81	2.87	15.78	3.04	16.14	2.73	15.84	3.01	16.44	2.65	96.51	12.80	
t	t=0.24		t=0.60		t=0.37		t=-0.82		t=0.07		t=-1.43		t=-0.211		
p	p=0.80		p=0.54		p=0.71		p=0.41		p=0.93		p=0.15		p=0.83		
Status of Having Children															
Yes	14.33	5.27	14.50	3.27	13.33	6.25	14.33	2.65	14.83	5.23	16.50	2.66	87.83	11.54	
No	16.65	2.70	16.03	2.96	16.00	2.72	16.02	2.95	15.91	2.63	16.08	2.91	96.70	12.77	
t	t=-1.06		t=-1.22		t=-1.04		t=-1.37		t=-0.50		t=0.33		t=-1.66		
_p	p=0.33		p=0.22		p=0.34		p=0.17		p =0.63		p=0.73		p=0.09		

Table 2. The comparison of socio-demographic and professional characteristics of the nurses, and compassion and its subscales

Type of the Intensive Care Unit Where the Nurse Works											
General Intensive Care	16.79 2.88	15.14 3.20	14.85 3.84	15.64 2.73 16.07 2.8	4 15.64 2.64	94.14 14.27					
Neurosurgery Intensive Care	17.14 2.03	16.21 2.57	16.28 1.97	15.64 2.87 15.85 2.4	1 15.21 2.72	96.35 11.63					
Neurology Intensive Care	15.70 3.15	15.94 3.12	15.29 3.65	16.43 2.86 15.29 3.2	6 16.97 2.60	95.64 12.99					
Covid Intensive Care	16.84 2.82	16.09 2.97	16.34 2.44	15.79 3.09 16.14 2.5	5 15.90 3.07	97.12 12.86					
F	F=1.54	F=0.42	F=1.64	F=0.48 F=0.74	F=1.80	F=0.24					
р	p=0.20	p=0.73	p=0.18	p=0.69 p=0.52	p=0.15	p=0.86					
Shift Duration	•	•	•	• •	•	•					
8 hours	15.92 3.89	14.91 3.17	14.50 4.66	14.91 2.90 15.25 3.8	4 15.91 2.77	91.41 12.33					
24 hours	16.61 2.76	16.06 2.96	16.01 2.75	16.05 2.94 15.92 2.6	6 16.12 2.92	96.79 12.81					
t	t=0.79	t=1.27	t=1.68	t=1.27 t=0.79	t=0.24	t=1.38					
р	p=0.43	p=0.20	p=0.09	p=0.20 p=0.42	p=0.81	p=0.16					
Number of Patients for Whom the Nurse Provided Care in a Shift											
Two Patients	16.52 2.81	15.89 3.00	15.85 3.02	16.07 2.97 15.83 2.8	7 15.98 2.92	96.14 13.15					
Three Patients	16.62 3.12	16.20 2.95	15.96 2.88	15.51 2.87 15.96 2.5	1 16.55 2.79	96.82 11.79					
t	t=-0.16	t=-0.50	t=-0.18	t=0.88 t=-0.23	t=-0.93	t=-0.25					
р	p=0.86	p=0.61	p=0.85	p=0.37 p=-0.24	p=0.35	p=0.80					
Status of Having Chosen the	Nursing Profess	ion Willingly									
Yes	16.45 2.81	16.48 2.69	16.01 3.11	16.69 2.57 15.98 2.9	5 16.50 2.80	98.13 11.79					
No	16.18 3.22	15.42 2.93	15.42 2.42	14.96 3.29 15.64 2.4	2 15.96 2.92	93.60 13.33					
Partially	17.00 2.73	14.40 3.43	15.97 3.19	15.31 3.03 15.80 2.7	8 15.48 3.01	94.97 14.03					
F	F=0.69	F=2.11	F=0.40	F=4.75 F=0.15	F=1.45	F=1.49					
р	p=0.50	p=0.12	p=0.67	p=0.01* p=0.85	p=0.23	p=0.22					
Satisfaction With Working in the Intensive Care Unit											
Satisfied	16.54 3.10	16.33 2.94	16.02 3.24	16.39 2.69 15.97 3.1	0 16.46 2.65	97.73 12.51					
Not Satisfied	16.55 2.59	15.50 2.99	15.68 2.65	15.39 3.17 15.72 2.3	5 15.67 3.14	94.53 13.08					
t	t=-0.03	t=1.59	t=0.63	t=1.93 t=0.50	t=1.55	t=1.41					
р	p=0.97	p=0.11	p=0.52	p=0.05 p=0.61	p=0.12	p=0.16					

*p<0.05 statistically significant; SD: standard deviation; t student-t test; F: One way ANOVA

	Compassion Scale and its Sub-Factors													
Variables Kindness		indness Indifference			Common Humanity		Separation		Mindfulness		Disengagement		Compassion Total	
	r	р	r	р	r	р	r	р	r	р	r	р	r	р
Age	-0.16	0.06	-0.20	0.01*	-0.18	0.03*	-0.20	0.01*	-0.04	0.62	-0.02	0.75	-0.19	0.02*
Years of work as a nurse	-0.06	0.44	-0.10	0.26	-0.05	0.51	-0.14	0.09	0.01	0.90	-0.01	0.85	-0.08	0.32
Years of work in the intensive care unit	-0.13	0.14	-0.09	0.28	-0.07	0.37	-0.13	0.12	-0.08	0.34	-0.03	0.67	-0.12	0.15

Table 3. The relationship between some characteristics of the nurses and their compassion and subscales scores

*p<0.05 statistically significant; r: Pearson Correlation Coefficient

Discussion

Today, nurses working in units where high technology is used, and critical decisions are made for patient care and treatment, such as intensive care units, are expected to perform many roles together and be compassionate simultaneously. In this study, the compassion levels of the intensive care nurses were determined to be quite high. Likewise, in the studies by Cinar (2019), Oruc et al. (2020) and Arkan et al. (2020), high compassion levels were observed in the operating room nurses, the healthcare professionals working in a palliative care unit, and the nurses working in a university hospital, respectively. On the other hand, many studies about compassion fatigue and relevant literature report that nurses generally experience compassion fatigue, while this situation is more common in intensive care units (Dikmen &Aydın, 2016; Hooper et al., 2010; Gok, 2015). This fact suggests that a high compassion level causes high compassion fatigue in nurses. Moreover, the fact that the study data were collected during the COVID-19 pandemic while the intensive care nurses experienced an physically intense period both and emotionally shows that they provided care with an intense feeling of compassion during the said period. Although this can be considered a positive finding in terms of care quality, it also implies the need to evaluate the nurses' compassion fatigue during the said period.

In the present study, a significant negative relationship was found between the age of the nurses and the mean scores they received from the overall compassion scale and its indifference, common humanity, and separation subscales. Kelly et al. (2015) reported that age affects the level of compassion. Moreover, Oruc et al. (2020) report that as the mean age increases, the total compassion level, common humanity, and mindfulness subscale mean scores also increase.

In the study conducted by Arkan et al.(2020) with nurses, a significant difference was found in the separation subscale according to the age parameter. Furthermore, in the study conducted by Cinar (2019), kindness, common humanity, and mindfulness were higher among staff aged 41-50; indifference

and separation were higher among staff aged 31-40; disengagement was higher among 51year-old personnel; and kindness, common humanity, and mindfulness were high among the 41-50 age group. As a matter of fact, studies conducted on compassion fatigue in nurses have also demonstrated that age affects compassion fatigue in such a way that as age increases, compassion fatigue also increases (Kelly et al., 2015; Polat & Erdem, 2017; Sacco et al., 2015). The fact that the present study's sample was composed of a young nurse group (average age: 25.86±3.93) is thought to have affected the results.

In this study, it was determined that female nurses had higher total mean compassion scores and mean separation subscale scores than males. Similarly, in many studies, women have been determined to have higher mean scores than men in the overall compassion scale and many subscales of the scale (Oruc et al., 2020; Polat & Erdem, 2017; Sacco et al., 2015; Salazar, 2015; Tatum, 2012; Chakrabarti & Baron-Cohen, 2006; Salazar, 2016; Adam & Taylor, 2014; Neff & Pommier, 2013; Cingol et al., 2018; Hacikelesoglu & Kartopu, 2017). Correspondingly, in the study conducted by Polat and Erdem (2017) on compassion fatigue, compassion fatigue has been reported to be more common in female nurses. This result is thought to arise from the fact that women are more emotional, more sensitive, and have maternal instincts by nature and integrate all these qualities of theirs into all areas of life. On the other hand, in a few studies, the gender factor has been reported not to affect the level of compassion in nurses (Arkan et al.,2020; Arli & Bakan, 2018), which is thought to be due to the sample characteristics of those studies. The present study revealed that those who had chosen the profession willingly had nursing а significantly higher total mean compassion score than the others. As a matter of fact, Kelly et al. (2015) also reported that liking and being satisfied with the job had a statistically significant effect on compassion fatigue.

No statistically significant differences were found between the nurses' compassion scores and their marital status, educational status, perceived income-expenditure status, family type, the status of having children, type of the intensive care unit, shift duration, number of patients for whom they provide care in a shift, and satisfaction with working in the intensive care unit. Again, no statistically significant relationship was found between the nurses' compassion levels and their years of work as a nurse or years of work in the intensive care unit. In many studies, no significant difference was found between nurses' compassion levels and marital status (Cinar, 2019; Oruc et al., 2020; Arkan et al., 2020). In the study by Oruc et al. (2020), where the compassion levels of healthcare professionals working in a palliative care unit were examined, it was determined that many characteristics of personal healthcare professionals (educational status, satisfaction with the profession and unit) did not affect their compassion levels. In the study by Arkan et al. (2020), no statistically significant difference was found between the weekly working hours of nurses and their total compassion scores. These results support the results of the present study.

Limitations and Strengths of the Study

The strength of this study is that it is the first study that examines the compassion levels of nurses working in intensive care units in capital of Turkey. However, this study has the important limitations. As this study was conducted with nurses working in intensive care units of one hospital alone, its results cannot be generalized to intensive care nurses across the country. Therefore, the study results are limited to the intensive care nurses of the hospital where the study was conducted. In addition, the results obtained in this study are limited to the scales used for data collection. The literature can be enriched with studies on intensive care nurses' compassion fatigue along with their compassion levels.

Conclusion: This study revealed that the compassion levels of intensive care nurses were quite high. In addition, it was found that there was a significant negative relationship between the nurses' age and their overall compassion scores and indifference, common humanity, and separation subscale scores. Moreover, female nurses were determined to have higher compassion levels than males, and the mean separation subscale scores were higher in those who willingly chose the nursing profession. Accordingly, it can be

recommended that compassion fatigue be evaluated in intensive care nurses with a high level of compassion, compassion and compassionate care be addressed in in-service training programs, studies be planned on the prevention of compassion fatigue, and training activities on compassion and compassionate care be included in nursing education.

Acknowledgements: We sincerely thank all of the nurses who participated in this study.

References

- Adam, D., & Taylor, R. (2014). Compassionate care: Empowering students through nurse education. Nurse Education Today; 34: 1242-1245.
- Akdeniz, S., & Deniz, M.E. (2016). The Turkish adaptation of Compassion Scale: The validity and reliability study. The Journal of Happiness & Well-Being, 4 (1), 50-61.
- Alliex, S., & Irurita, V.F. (2004). Caring in a technological environment: how is this possible? Contemporary Nurse, 17 (1-2), 32-43. http://dx.doi.org/10.5172/conu.17.1-2.32.
- Arkan, B., Yilmaz, D., & Duzgun, F. (2020). Determination of compassion levels of nurses working at a university hospital. Journal of Religion And Health, 59(1), 29–39. http://dx.doi.org/10.1007/s10943-019-00786x.
- Arli, S.K. & Bakan, A.B. (2018). The factors affecting compassion and intercultural sensitivity among the surgical nurses. Sted, 27(4), 277–283.
- Bagherian, B., Sabzevari, S., Mirzaei, T., & Ravary, A. (2017). Meaning of caring from critical care nurses' perspective: A phenomenological study. Journal of Intensive and Critical Care, 3 (3:33), 1-9. DOI: 10.21767/2471-8505.100092.
- Beeby, J.P. (2000). Intensive care nurses' experiences of caring. Part 1: Consideration of the concept of caring. Intensive Critical Care Nursing, 16 (2), 76-83. http://dx.doi.org/10.1054/iccn.2000.1489
- Bridges, J., Nicholson, C., Maben, J., Pope, C., Flatley, M., Wilkinson, C., Meyer, J., & Tziggili, M. (2013). Capacity for care: Metaethnography of acute care nurses' experiences of the nurse-patient relationship. Journal of Advanced Nursing, 69 (4), 760-772. http://dx.doi.org/10.1111/jan.12050
- Burnell, L. (2011). Compassionate care: The patient perspective. [Unpublished PHD Thesis]. Faculty of The Hahn School of Nursing and Health Science University of San Diego.

- Chakrabarti, B., & Baron-Cohen, S. (2006). Empathizing: neurocognitive developmental mechanisms and individual differences. Progress in Brain Research, 156, 403-417. http://dx.doi.org/10.1016/S00796123(06)5602 2-4.
- Cinar, F. (2019). The measurement of the level of compassion of nurses in operating room. Innovative Journal of Medical and Health 743-753. Science. 9(12). https://doi.org/10.15520/ijmhs.v9i12.2762
- Cinar, F., & Eti Arslan, F. (2018). Measuring compassion level of operating room nurses: a turkish validity and reliability research. Kocaeli Medical Journal, 7(3), 222-229.
- Cingol, N., Celebi, E., Zengin, S., & Karakas, M. (2018). The investigation of compassion level of nursing students in a health college Turkish Journal of Clinical Psychiatry, 21, 61-67.
- Curtis, K., Horton, K., & Smith, P. (2012). Student nurse socialisation in compassionate practice: a grounded theory study. Nurse Education Today, 32 790-795. (7), http://dx.doi.org/10.1016/j.nedt.2012.04.012.
- de Zulueta, P. (2013). Compassion in healthcare. Journal of Clinical Ethics, 8 (4), 87–90. http://dx.doi.org/10.1177/1477750913506484.
- Dewar, B., Adamson, E., Smith, S., Surfleet, J., & King, L. (2014). Clarifying misconceptions about compassionate care. Journal of Advanced Nursing, 70 (8), 1738-1747. http://dx.doi.org/10.1111/jan.12322.
- Dikmen, Y., & Aydın, Y. (2016). Compassion fatigue in nurses: What? How? What To Do? Journal of Human Rhythm, 2(1), 13-21.
- Dikmen, Y., Aydın, Y., & Tabakoglu, P. (2016). Compassion fatigue: A study of critical care nurses in Turkey. Journal of Human Sciences, 2879-2884. 13(2),http://dx.doi.org/10.14687/jhs.v13i2.3752
- Fernando, A., Rea, C. & Malpas, P. (2018). Compassion from a palliative care perspective. The New Zealand Medical Journal, 131 (1468), 25-32.
- Francis, R. Report of the Mid Staffordshire NHS foundation trust public inquiry: executive summary. The Stationary Office, UK, http://webarchive.nationalarchives.gov.uk/201 50407084003/2 (accessed 20 January 2013)
- Freshwater, D., & Cahill, J. (2010). Care and compromise: developing a conceptual framework for work-related stress. Journal of Research in Nursing, 15, 173–183. http://dx.doi.org/10.1177/1744987109357820.
- George, D., & Mallery, M. (2010). SPSS for Windows Step by Step: A Simple Guide and Reference. 10th ed. Boston: Pearson.
- Gok, A.G. (2015). Unbearable heaviness of compassion: nurses' compassion fatigue. Suleyman Demirel University The Journal of

Faculty of Economics and Administrative Sciences, 20(2), 299-313.

- Hacikelesoglu, H., & Kartopu, S. (2017). Compassion and religiosity: An empirical research on university students. The Journal of Academic Social Science Studies, 59: 203-227. http://dx.doi.org/10.9761/JASSS7234.
- Harrison, P. (2009). Delivering compassionate care. Gastrointestinal Nursing, 7(9), 46-47. http://dx.doi.org/10.12968/gasn.2009.7.9.452 76
- Hooper, C., Craig, J., Janvrin, D.R., Wetsel, M.A., & Reimels, E. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. Journal Of Emergency Nursing. 2010; 36 (5), 420-427.

http://dx.doi.org/10.1016/j.jen.2009.11.027.

- Ives, J. & Efstathiou, N. (2018). Compassionate care during withdrawal of treatment: A secondary analysis of ICU nurses' experiences. Nursing Ethics, 1075-1086. 25(8), http://dx.doi.org/10.1177/0969733016687159.
- Jones, J., Winch, S., Strube, P., Mitchell, M., & (2016). Henderson, Delivering Α. compassionate care in intensive care units: nurses' perceptions of enablers and barriers. Journal Of Advanced Nursing 72 (12), 3137-3146. http://dx.doi.org/10.1111/jan.13064
- Kelly, L., Runge, J., & Spencer, C. (2015). Predictors of compassion fatigue and compassion satisfaction in acute care nurses. Journal Of Nursing Scholarship, 47(6): 522-528. http://dx.doi.org/10.1111/jnu.12162
- Montgomery, H., Grocott, M., & Mythen, M. (2017). Critical care at the end of life: balancing technology with compassion and agreeing when to stop. British journal of 119 anesthesia, (S1), i85-i89. http://dx.doi.org/10.1093/bja/aex324
- Neff, K.D., & Pommier, E. (2013). The relationship between self-compassion and other-focused concern among college undergraduates, community adults, and practicing meditators. Self and Identity, 12(2), 160-176.

https://doi.org/10.1080/15298868.2011.64954 6

- Oruc, O., Igde, M.H., Kocatepe, V., & Yildirim, D. (2020). Examining the compassion status of healthcare professionals working in the Palliative Care Units. Turkish Journal of Oncology, 35(3). 250-256. https://doi.org/10.5505/tjo.2020.2126
- Polat, F.N., & Erdem, R. (2017). The relationship between the level of compassion fatigue and quality of professional life: The case of medical professionals. Journal of Suleyman

Demirel University Institute of Social Sciences, 1(26), 291–312.

- Pommier, E. A. (2011). The compassion scale. Dissertation Abstracts International Section A: Humanities and Social Sciences, 72, 1174.
- Sacco, T.L., Ciurzynski, S.M., Harvey, M.E., & Ingersoll, G.L. (2015). Compassion satisfaction and compassion fatigue among critical care nurses. Critical Care Nurse, 35(4), 32-44. http://dx.doi.org/10.4037/ccn2015392.
- Salazar, L.R. (2015). Exploring the relationship between compassion, closeness, trust, and social support in same-sex friendships. The Journal of Happiness & Well-Being, 3(1), 15-29.
- Salazar, L.R. (2016). The relationship between compassion, interpersonal communication apprehension, narcissism and verbal aggressiveness. The Journal of Happiness & Well-Being, 4(1), 1-14.

- Schantz, M.L. (2007). Compassion: a concept analysis. Nurs Forum, 42(2), 48– 55. http://dx.doi.org/10.1111/j.1744-6198.2007.00067.x
- Tatum, K.J. (2012). Adherence to gender roles as a predictor of compassion and self-compassion in women and men. [Unpublished PHD Thesis]. Baylor University.
- Thomas H. Inside the House of Harm. The Australian. http://www.theaustralian.com.au/news/inquire r/inside-the-house-of-harm/story-e6frg6z6-1227220598991 (accessed 21 February 2015).
- Ugurlu, A.K., & Eti Aslan, F. (2017). Compassion and nursing: Can compassion be measured? Turkiye Clinics Journal of Nursing Sciences, 9 (3),233-238.

http://dx.doi.org/10.5336/nurses.2016-53677