

ARAŞTIRMA MAKALESİ/ORIGINAL ARTICLE

The Relationship Between Perceived Social Support and Anger in Nurses Working in a Pandemic Hospital

Pandemi Hastanesinde Çalışan Hemşirelerde Algılanan Sosyal Destek ve Öfke Arasındaki İlişki



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Abstract

Background: Nurses experienced burnout and stress which were associated with depression, anxiety, stress, anger, and low social support in COVID-19 pandemic.

Objective: The aim of this study is to investigate the relationship between perceived social support and anger in nurses working in a pandemic hospital.

Method: This is a descriptive cross-sectional study. The sample included 306 nurses (72.4%) who were reached during the study period and volunteered to participate in the study. The data collection tool used in this study included a questionnaire, Multidimensional Scale of Perceived Social Support (MSPSS), Anger Expression Scale (AX), and State Trait Anger Scale (STAS). The study was conducted in a state hospital. The SPSS (Statistical Package for the Social Sciences) 24 software was used for statistical analysis. Descriptive statistical analysis was applied for numerical and categorical variables. Additionally, it was conducted Pearson's correlation analysis.

Results: The average age of the nurses was 34.08y and their average years of employment was 12.22y. There was a positive correlation between anger-control subscale and scores of the overall MSPSS and MSPSS family subscale and anger-in, anger-out subscale. Those who had good social relations had a higher score from anger-control subscale.

Conclusion: Nurses with better social support can control their anger better and those who perceived social support from their families better can display their anger-in and anger-out behaviours. It can be recommended to organise working hours and department to improve social life of nurses, to establish social support groups in the hospital, and to increase social activities for nurses.

Keywords: Perceived Social Support, Anger, Nurse, Pandemic Hospital

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Öz

Giriş: Hemşireler, COVID-19 pandemisinde depresyon, kaygı, stres, öfke ve düşük sosyal destek ile ilişkili tükenmişlik ve stres deneyimlediler.

Amaç: Bu araştırmanın amacı, bir pandemi hastanesinde çalışan hemşirelerde algılanan sosyal destek ile öfke arasındaki ilişkinin incelenmesidir.

Yöntem: Bu tanımlayıcı kesitsel bir çalışmadır. Örnekleme, çalışma süresi içinde ulaşılan ve araştırmaya katılmaya gönüllü olan 306 hemşire (%72,4) oluşturdu. Bu çalışmada kullanılan veri toplama aracı olarak bir soru formu, Çok Boyutlu Algılanan Sosyal Destek Ölçeği (MSPSS), Öfke İfade Ölçeği (AX) ve Sürekli Öfke Durumluk Ölçeği (STAS) kullanıldı. Çalışma bir devlet hastanesinde yürütüldü. İstatistiksel analiz için SPSS (Statistical Package for the Social Sciences) 24 programı kullanıldı. Sayısal ve kategorik değişkenler için tanımlayıcı istatistiksel analiz uygulandı. Ek olarak, Pearson korelasyon analizi kullanıldı.

Bulgular: Hemşirelerin yaş ortalaması 34.08 yıl ve ortalama çalışma yılı 12.22 idi. Öfke kontrolü alt ölçeği ile MSPSS ve MSPSS aile alt ölçeği puanları ile öfke içe, öfke dışı alt ölçeği puanları arasında pozitif bir korelasyon vardı. Sosyal ilişkileri iyi olanların öfke kontrolü alt ölçeğinden aldıkları puanlar daha yüksekti.

Sonuç: Sosyal desteği iyi olan hemşireler öfkelerini daha iyi kontrol edebilmektedir ve ailesinden sosyal desteği daha iyi algılayanlar öfkeyi içe ve dışı doğru daha iyi sergileyebilmektedir. Hemşirelerin sosyal yaşamının iyileştirilmesi için çalışma saatlerinin ve bölümün düzenlenmesi, hastanede sosyal destek gruplarının oluşturulması ve hemşirelere yönelik sosyal aktivitelerin artırılması önerilebilir.

Anahtar Kelimeler: Algılanan Sosyal Destek, Öfke, Hemşire, Pandemi Hastanesi

INTRODUCTION

The COVID-19 pandemic has caused serious cases and deaths all over the world and in Türkiye. In order to fight against the pandemic, some hospitals were declared as pandemic hospitals. Healthcare professionals, who were mostly affected during that period, were the nurses of the pandemic hospital. Nurses had to take care of COVID-19 patients alternately and those working in other units continued to be at risk. During the pandemic, nurses experienced serious stress and anxiety for themselves, their families and others. The causes of this stress and anxiety included lack of information about the pandemic, feeling of helplessness and burnout, feeling worthless, having young children and family members in need of care, stigma, exposure to violence, failing to expressing the problems

adequately, and experiencing ethical dilemmas in patient care. Especially during the lockdown days, transportation problems for going to work and caregiver problems for family members in need of care were experienced (WHO 2022; Kıraner et al, 2020). Because all of these, it can be thought that the nurses working in a pandemic hospital may be angry and their perceived social support may affect their anger.

Bayrak et al., (2021) determined that anxiety levels of nurses affected their anger expression styles during the COVID-19 pandemic in Türkiye. In a meta-analysis study, various factors regarding COVID-19 affected nurses' burnout (Galanis et al., 2021). Pinho et al., (2021) highlighted that mental health promotion strategies were crucial to reduce nurses' stress, depression and anxiety during the COVID-19

pandemic. Andlib et al., (2022) revealed that nurses experienced burnout and stress which were associated with depression, anxiety, stress, anger, and low social support in Pakistan during COVID-19 pandemic. Ersin et al., (2021) determined in their study that the mental well-being of nurses working in a pandemic hospital in Türkiye was positively correlated with perceived social support. Al-Mansour (2021) found that social support had a mitigating effect on the correlation between stress and intention of quitting the job. Kılınç and Çelik (2021) revealed that perceived social support of nurses increased as their resilience increased during COVID-19 pandemic in Türkiye. Tatsuno et al., (2021) found that social support was associated with depression and anxiety symptoms for Japanese intensive care nurses during the pandemic day. Ebrahimi et al., (2021) indicated that the perceived social support had a moderator effect on correlation between workload and quality of life. Upon the literature review, it has been found there are no studies on how social support affects anger in nurses working in the pandemic hospital. Examination of relationship between social support and anger will provide information for nurses coping with various outbreaks. Nursing workforce and support systems need to be well planned for high quality and safe care. Individual and institutional improvements alike are needed if we wish to be better prepared for the future and moving forward without exhaustion. Social support perceived by nurses may have positive effects on anger control. Determining the effect of social support on anger can be a guide in regulating the working conditions of nurses. This may be a factor in improving the quality of care. These study results it can be useful for these solutions. The aim of this study is to investigate the relationship between social support and anger in nurses working in a pandemic hospital. Study

dependent variable is nurses' anger; independent variable is nurses' perceived social support.

Research Questions

1. What are the perceived social support levels of nurses in the pandemic?
2. What are the anger levels of nurses during the pandemic?
3. What is the relationship between nurses' perceived social support and their anger during the pandemic?

METHOD

Type of the Research

This is a descriptive cross-sectional study.

Place of the Research

This study was conducted at a State Hospital between October and November 2021.

Universe/Sample of the Research

The population consisted of 423 nurses who were employing at this State Hospital. The sample consisted of 306 nurses (72.4%) who were reached during the study period and volunteered to participate in the study. In order to determine the sample size of this study, a power analysis was performed using G*Power (v3.1.9.7) software and the sample size were found to be 246 with $\alpha = 0.05$, effect size = 0.2 and 90% power (Akal, 2010). However, considering that there may be data losses, a total of 306 nurses sampled.

Data Collection Instrument-Validity and reliability information

The data collection tools used in this study included a questionnaire about the participants' socio-demographic characteristics and occupation social support, and anger-related characteristics, Multidimensional Scale of Perceived Social Support (MSPSS), Anger Expression Scale (AX), and State-Trait Anger

Scale (STAS).

The Questionnaire

The questionnaire on the nurses' socio-demographic, social support, anger and occupational characteristics consists of questions about gender, age, level of education, marital status, working period, length of employment at the hospital/profession, assigned department, administrative assignment(s), number of children, status of contracting COVID-19, social relation status, pandemic clinic or intensive care experience, family relations during pandemic, social support from family, and reasons for anger.

Multidimensional Scale of Perceived Social Support

Multidimensional Scale of Perceived Social Support Scale (MSPSS) was developed by Zimet et al., (1988) (Zimet et al., 1988) and includes three subscales (family, friend, and significant other) for perceived social support. This scale has 12 items and is a seven-point likert-type scale (1= very strongly disagree, 7= very strongly agree). A higher score indicates greater social support. Eker and Arkar (1995) carried out the Turkish reliability and validity study of the scale and found that the Cronbach' alpha value was 0.89 (Eker ve Arkar, 1995). Cronbach's alpha value of the scale was found to be 0.97 in this study.

Anger Expression Scale and State Trait Anger Scale

Anger Expression Scale (AX) and State Trait Anger Scale (STAS) were developed by Spielberger et al., (1983) (Spielberger et al., 1983; Spielberger et al., 1985). The scales applied to adolescents and adults were adapted into Turkish by Özer (1994) (Özer, 1994). It consists of Trait Anger (10 items) and Anger Expression Style Scale (24 items) subscales and has a total of 34 items and four likert-type (1=Almost never,

4=Almost always). The first 10 items of the scale describe trait anger. Anger Expression Style subscale consists of three parts, namely 'anger-in, anger-out, and anger control'. High scores from the trait anger subscale indicate a high level of anger. High scores from the anger-in subscale signify that anger is suppressed and directed inward. High scores from the anger-out subscale indicate that anger is verbally and physically directed outward. High scores from the anger-control subscale indicate that anger is expressed using appropriate communication means. While minimum and maximum scores are 10 and 40 points in Trait Anger Scale, these scores are 8 and 32 points in Anger-in, Anger-out, and Anger-control subscales. Cronbach's Alpha values in the original version of the scale range from 0.82 to 0.90 (Özer, 1994). In this study, cronbach's alpha value of the scale was found to be 0.85.

Data Collection

The purpose of the study was explained before obtaining verbal and written consent from each nurse. The researcher, who was working at pandemic hospital and a master student, applied questionnaire. The survey took approximately ten minutes to complete.

Data Analysis

The SPSS (Statistical Package for the Social Sciences) 24 software was used for statistical analysis. Descriptive statistical analysis (standard deviation, mean, percentile, minimum, maximum, and number) was applied for numerical and categorical variables. Additionally, it was conducted, Pearson's correlation analysis and Cronbach's alpha internal consistency tests. Statistically significance was evaluated at p-values of <.05.

Ethical Aspect of the Research

Approval from the Ethics Committee of the

University (04.10.2021/22) and institutional permission from Hospital Management were obtained for this study. All the participants gave informed verbal and written consent.

RESULTS

The average age of the nurses was 34.08y (SD 7.92, range 21 to 55y) and average years of employment was 12.22y (SD 8.93, range 1 to 36y). Table 1 shows other descriptive data for nurses.

Characteristics	n	%
Age		
24 and ↓	24	7.8
25-29	99	32.4
30-34	48	15.7
35and ↑	135	44.1
Gender		
Women	227	74.2
Men	79	25.8
Marital status		
Married	196	64.1
Single	110	35.9
Education		
High school/ associate degree	58	19
University	222	72.5
Master	26	8.5
Children No		
0	139	45.4
1	51	16.7
2	94	30.7
3↑	22	7.2
Living with family		
Yes	246	80.4
No	60	19.6
Length of employment at profession		
1-5 years	99	32.4
6-10 years	56	18.3
11-15 years	51	16.7
16↑ years	100	32.6
Length of employment at clinic		
5↓	214	69.9
6-10	35	11.4
11-15	34	11.1
16↑	23	7.6
Work status		
In Shifts	191	62.4
Night	88	28.8
Day	27	8.8

Table 1. Socio-Demographic and Work-Related Characteristics of the Participants (n=306)

Administrative assignment		
Yes	36	11.8
No	270	88.2
Clinic		
Internal medicine	73	23.9
Surgical units	48	15.7
Operating room	23	7.5
Intensive care	99	32.4
Other departments	63	20.5
Contracting COVID-19		
Yes	149	48.7
No	157	51.3
Return to work after COVID-19		
7 day↓	19	6.2
7-14 day	84	27.5
14 day↑	46	15
None	157	51.3
Social Relations		
Medium	103	33.7
Good	149	48.7
Very good /Perfect	54	17.6
Social life -Per week/hour		
None	59	19.3
1-5	163	53.3
6-10	64	20.9
10↑	20	6.5
Being experienced in COVID-19 units/emergency/intensive care		
Yes	244	79.7
No	62	20.3
Receiving support from family		
Care of family members	43	14.1
Meeting various needs	29	9.5
Social psychological support	142	46.4
No	92	30
Anger against hospital management		
Yes	266	86.9
No	40	13.1
Anger against teammates		
Yes	192	62.7
No	114	37.3
Anger due to workload		
Yes	269	87.9
No	37	12.1
Anger due to failing to get family support		
Yes	114	37.3
No	192	62.7
Anger due to stigma		
Yes	249	81.4
No	57	18.6
Total	306	100.0

It was determined that 74.2% of the nurses participating in the study were women, 44.2% were 31 and over age, 64.1% were married and 45.4% had no children. It was determined that 72.5% of the nurses were university graduates, 80.4% living with their family, 32.6% had been working for 16 years and above, and 20.5% were working other departments such as management department, polyclinic. It was determined that 48.7% contacted COVID-19, 48.7% had good social relations, 53.3% was spending 1-5 hour per week for social life, 46.4% were receiving social psychological support from their family, 86.9% angered against hospital management, 62.7% teammates, 87.9% angered due to workload, 37.3% insufficient family support, 81.4% stigma.

Table 2. Mean Scores of Social Support and Anger Trait/Anger Expression Scales (with subscales) (n = 306)

MSPSS	Mean Score	Min-Max
Subscale of family (4)	18.56± 8.4	4-28
Subscale of friends (4)	16.81± 8.15	4-28
Subscale of significant other (4)	14.98± 8.95	4-28
Total of MSPSS (12)	50.35± 23.32	12-84
Subscale of trait anger (10)	19.90± 4.78	10-36
Subscale of anger-in (8)	16.01± 4.18	8-30
Subscale of anger-out (8)	14.41± 3.30	8-26
Subscale of anger-control (8)	21.81± 5.0	8-32

Table 2 shows the mean scores of the overall MSPSS and the AX-STAS. In the study, it was determined that MSPSS total mean scores of the nurses were 50.35±23.32. From this point, it was shown that the nurses had average social support in the pandemic.

When the sub-dimension mean score of the MSPSS scale is calculated; The mean score for the family subscale is 18.56±8.4, the mean score for the friends subscale is 16.81±8.15, the

mean score for the significant others subscale is 14.98±8.95.

When the sub-dimension mean score of the anger scale was calculated; trait anger sub-dimension mean score 19.90±4.78, anger-in sub-dimension mean score 16.01±4.18, anger-out sub-dimension mean score 14.41±3.30, anger-control sub-dimension mean score 21.81±5.

Table 3. Correlation Between Perceived Social Support and Anger Trait- Anger Expression

Scale		Trait anger	Anger in	Anger out	Anger control
Total of social support scale	R	.058	.075	.110	.341**
	p	.309	.191	.055	<.001
	n	306	306	306	306
Family Subscale	R	.076	.115*	.135*	.364**
	p	.183	.044	.018	<.001
	n	306	306	306	306
Friends Subscale	R	.027	.072	.061	.355**
	p	.636	.210	.284	<.001
	n	306	306	306	306
Significant other Subscale	R	.056	.022	.102	.224**
	p	.332	.705	.073	<.001
	n	306	306	306	306

(*p<0.05) (**p<0.001)

Table 3 shows the correlation between MSPSS total score and subscale and AX-STAS. A positive correlation was found between anger-control and MSPSS total score (r=.341; p<.001), family subscale (r=.364; p<.001), friends subscale (r=.355; p<.001), significant other subscale (r=.224; p<.001). In addition a positive correlation was found that between family subscale of the MSPSS and anger-in (r=.115; p=0.44) and anger-out (r=.135; p=0.18) subscales.

DISCUSSION

In the current study, the nurses were feeling anger against hospital management, teammates, workload, failing to get family support, and

stigma. Most of them spent 1-5 hour(s) per week for their social life and received social psychological support from their family and almost half contracted COVID-19. Galanis et al., (2021) found that decreased social support, low readiness of colleagues and family to cope with COVID-19, younger age, perception of increased threat of COVID-19, longer working time, working in a high-risk environment, working in hospital with insufficient number of equipment and personnel, increased workload, and lower level of specialised training regarding COVID-19 have affected nurses' burnout during pandemic. Bakhsh et al. (2023) determined that the nurses most commonly experienced emotion was a feeling of responsibility and ethical duty in Saudi Arabia, followed by nervousness and fear, anger and stigma. The most common stressors were related to the nurses' own safety, or the safety of their families and colleagues. The perceived uncontrollability of COVID-19 was also a significant stressor. The first wave of COVID-19 exerted a tremendous psychological stress on nurses, due to concerns about safety, disease uncertainties, and social isolation. Beside, Abdulmohdi (2024)'s study in second wave of the COVID-19 found that nurses experienced a high level of burnout during the second wave of the COVID-19 pandemic, which may be influenced by how they felt their organisations supported them. It can be said that the nurses have been affected by the pandemic all over the world and at all time.

Perceived social support score of the participants was medium, their anger control score was above average, and their scores were low in other subscales. As the perceived social support of nurses increased, their anger control also increased. In addition, those who received social support from their family were better able to display anger-in and anger-out expressions.

Andlib et al., (2022) revealed that during COVID-19 pandemic nurses living in Pakistan experienced burnout and stress, which were associated depression, anxiety, stress, anger, and low social support. The literature reveals that perceived social support of nurses is associated with mental well-being, stress, burnout, intention of quitting the job, resilience, depression, anxiety symptoms, workload, and quality of life during COVID-19 pandemic (Ebrahimi et al., 2021; Tatsuno et al., 2021; Kılınç and Çelik, 2021; Al-Mansour, 2021; Ersin et al., 2021; Andlib et al., 2022; Shen et al., 2022). Moisoglou et al. (2024) determined that negative relationship between social support and job burnout. A similar negative relationship was found between resilience and job burnout. Social support and resilience can act as protective factors against COVID-19 pandemic burnout and job burnout among nurses.

As social support affects many factors, social support was also effective on anger control and family support was effective on anger-in and anger-out in this study. It can be asserted that social support during the pandemic had a positive effect on anger control and those, who received family support, were able to express themselves better.

It can be thought that nurses with good social relations manage their stress better and therefore are less angry.

Limitations

This study was carried out only in single pandemic hospital, the sample was small and nurses' responses were subjective.

IMPLICATIONS FOR NURSING PRACTICE

Consequently; nurses with better social support can control their anger better and those who perceived better social support from their

families can express their anger inward and outward. In the light of these results, it is important that nurses, who have undertaken a significant workload during the pandemic and have worked in shifts and under intensive working conditions, are able to express their anger. Hence, the quality of life of nurses and thus the quality of care they provide will become enhanced. Considering that social support affects anger control, it can be recommended to organise working hours and department to improve social life of nurses, to establish social support groups in the hospital, and to increase social activities for nurses. Nurses are suggested to be trained about making their social lives more effective and getting more support that is social from their families in order to better control and express their anger. Recommendations can be effective in crisis management during other outbreaks.

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