

ORIGINAL ARTICLE

Investigation of Perceptions of Nurses Working in Surgical Units on Crab Basket Syndrome: A Descriptive Study

Cerrahi Birimlerde Çalışan Hemşirelerin Yengeç Sepeti Sendromu Algılarının İncelenmesi: Tanımlayıcı Bir Çalışma

¹Seda Cansu YENİGÜN AKBULUT , ²Bahar AKSOY , ³Züleyha OĞUR 

¹Lecturer, PhD, MSc, BSN, Akdeniz University, Kumluca Faculty of Health Sciences, Department of Surgical Disease Nursing, Antalya, Türkiye
E-mail: seda.cansu.yenigun@gmail.com
²Lecturer, PhD, MSc, BSN, Akdeniz University, Kumluca Faculty of Health Sciences, Child Health and Disease Nursing Department, Antalya, Türkiye
E-mail: baharaksoy6161@gmail.com
³Nurse, PhD, Msc, BSN, Antalya Provincial Health Directorate, Antalya, Türkiye
E-mail: zuleyha.ogur@hotmail.com

Correspondence

Seda Cansu YENİGÜN AKBULUT,
Lecturer, PhD, MSc, BSN, Akdeniz University, Kumluca Faculty of Health Sciences, Department of Surgical Disease Nursing, Antalya, Türkiye,

E-Mail: seda.cansu.yenigun@gmail.com

How to cite ?

Yenigün Akbulut S. C. , Aksoy B, Oğur Z, Investigation of Perceptions of Nurses Working in Surgical Units on Crab Basket Syndrome: A Descriptive Study, Genel Tıp Derg. 2025;35(4),574-585

ABSTRACT

Aim: To investigate perceptions of crab basket syndrome (CBS) among nurses working in surgical units.

Methods: The descriptive and cross-sectional study was conducted with 210 nurses actively working in surgical units of four hospitals in the Mediterranean region between January 24 2023-June 24 2024. Data were collected face-to-face with the "Introductory Information Form and CBS". The descriptive statistics, Independent Sample Student t-test, and Kruskal Wallis-H tests were used in evaluating the data.

Results: The mean age of the nurses was 36.51±8.51 years. Of nurses, 81% were female, 65.7% were married, 43.8% were undergraduates, and 28.6% had 1-5 years of professional experience. Nurses' mean scores for the CBS Scale (CBSS) total and its cognitive, emotional, and behavioral subdimensions were 2.86±0.68, 2.86±0.67, 2.93±0.88, and 2.79±0.95, respectively. The behavioral sub-dimension score of the nurses dissatisfied with the institution they worked in and not trusting the nurse in charge of the service they worked in was higher and more significant than the other groups (p<0.05). Nurses dissatisfied with the communication with their colleagues in the unit and not trusting their colleagues had higher mean scores in the cognitive, emotional, and behavioral sub-dimensions and total score of CBSS. The difference between the groups was statistically significant (p<0.05). Nurses seeing the competition in the working environment as false had higher cognitive sub-dimension scores, and the difference between the groups was statistically significant ($\chi^2=7.819$; p=0.020).

Conclusions: Nurses working in surgical units experience CBS. Surgical nurses' perception of CBS varies based on factors such as marital status, gender, education level, professional experience, institutional satisfaction, team communication, trust in the work environment, competitive atmosphere, and trust in the manager. To reduce CBS in surgical wards, a non-competitive, reliable, and supportive working environment that increases nurses' trust in the institution should be provided.

Keywords: Crab basket syndrome, nurse, perception, surgical units.

Öz

Amaç: Cerrahi birimlerde çalışan hemşirelerin yengeç sepeti sendromu algılarının incelenmesi amacıyla yapılmıştır.

Gereç ve Yöntemler: Tanımlayıcı ve kesitsel olarak yürütülen araştırma 24 Ocak 2023-24 Haziran 2024 tarihleri Akdeniz bölgesinde yer alan dört hastanenin cerrahi birimlerinde aktif olarak çalışan 210 hemşire ile yapılmıştır. Araştırma verileri "Tanıtıcı Bilgi Formu ve Yengeç Sepeti Sendromu Ölçeği" ile yüz yüze toplanmıştır. Verilerin değerlendirilmesinde tanımlayıcı istatistikler, bağımsız Örneklem T testi ve Kruskal-Wallis H testi kullanılmıştır.

Bulgular: Hemşirelerin yaş ortalaması 36,51±8,51 olduğu saptanmıştır. Araştırmaya katılan hemşirelerin %81'i kadın, %65,7'si evli, %43,8'i lisans mezunu ve %28,6'sı 1-5 yıl mesleki deneyime sahiptir. Bu çalışmada hemşirelerin Yengeç Kovası Sendromu Ölçeği toplam, bilişsel, duygusal ve davranışsal alt boyutlara ilişkin ortalama puanları sırasıyla 2,86±0,68, 2,86±0,67, 2,93±0,88 ve 2,79±0,95 idi. Bu çalışmada çalıştığı kurumdaki memnuniyetin olmaması ve çalıştığı servisin sorumlu hemşiresine güvenmeyen hemşirelerin davranışsal alt boyut puanının diğer gruplara göre daha yüksek ve anlamlı olduğu saptanmıştır (p<0.05). Çalıştığı servisteki arkadaşları ile kurdukları iletişimden memnun olmayan ve çalışma arkadaşlarına güvenmeyen hemşirelerin bilişsel, duygusal, davranışsal alt boyutları ve Yengeç Sepeti Sendromu ölçeği toplam puanı ortalamalarının daha yüksek olduğu ve gruplar arasındaki farkın istatistiksel olarak anlamlı olduğu saptanmıştır (p<0.05). Çalışma ortamındaki rekabeti kesinlikle doğru bulmayan hemşirelerin bilişsel alt boyutu puanının daha yüksek olduğu ve gruplar arasındaki farkın istatistiksel olarak anlamlı olduğu bulunmuştur ($\chi^2=7.819$; p=0.020).

Sonuçlar: Cerrahi birimlerde çalışan hemşirelerin orta düzeyde yengeç sepeti sendromu yaşadığı görülmüştür. Yengeç sepeti sendromu algısının cerrahi hemşirelerinde medeni durum, cinsiyet, eğitim düzeyi, mesleki deneyim, kurum memnuniyeti, ekip içi iletişim, güven ortamı, rekabet ortamı, yöneticiye duyulan güvene göre değiştiği görülmüştür. Cerrahi servislerinde yengeç sepeti sendromunu azaltmak için, hemşirelerin kuruma, sorumlu hemşireye ve ekip arkadaşlarına olan güvenini artıran, rekabetten uzak, güvenilir ve destekleyici bir çalışma ortamı sağlanmalıdır.

Anahtar Kelimeler: Algi, cerrahi servisler, hemşire, yengeç sepeti sendromu.

INTRODUCTION

Nurses, like other professional groups, spend a significant portion of their daily lives in their work environments (1). It is known that the work environment influences nurses' job motivation and stress levels. High workloads, inadequate staffing and equipment, lack of clear job descriptions, exhausting and lengthy work hours, insufficient managerial support, and unsafe working conditions create negative and unhealthy work environments (2,3). From the perspective of the work environment, surgical units, known as surgical clinics, operating rooms, and surgical intensive care units, are of great importance due to the need for critical thinking, rapid decision-making, and immediate action (4,5). These factors mean that surgical units are more stressful compared to other units and have various adverse physical, psychological, and social effects on nurses (6). Due to high staff turnover and intense stress factors in these clinics, teamwork is essential (3-5). The importance of teamwork during the surgical intervention process is undeniable. Surgical team members are dependent on each other to perform complex and varied tasks. The performance of the team is primarily affected by the communication among team members. It is very important for team members to know each other's roles and responsibilities (7). Studies have proven that when the team in surgical services and operating rooms exhibit positive teamwork attitudes appropriate to their professionalism, patient safety increases, there is no loss of information related to the patient, and the quality of treatment and care increases (8,9). In environments where teamwork is intended, the presence of elements such as competition, ignorance, and jealousy can hinder team members

from cooperating and working effectively. Such negative elements can lead to the development of unprofessional attitudes, the inability to communicate healthily, and the prioritization of individual interests over collaboration (10). Crab Basket Syndrome (CBS), frequently observed in competitive environments, is a condition characterized by interpersonal competition where individuals prefer to hinder and sabotage each other rather than support each other in achieving work success (11). Individuals with a crab mentality display behaviors such as demoralizing, belittling, mocking, excluding, criticizing, denigrating their work, spreading rumors to create a negative image of the person, and making insinuations with a covert intention to stop their peers from progressing in their careers (12,13). Crab behaviors, which cause individuals to experience stress at work, lead to physical and psychological problems in these individuals (14). CBS has become a significant source of stress for nurses, and it is believed to significantly increase the stress experienced by nurses in their work environment (15,16). In the study conducted by Aydın and Oğuzhan with healthcare personnel, in which 62.5% of the participants were nurses, it was reported that participants experienced negative emotions due to crab mentality in their work environment (15). Additionally, in the study conducted by Sayan and Altuntaş with academic nurses, it was determined that their perception of the crab mentality syndrome was at a moderate level (16). Therefore, this study aims to determine the perceptions of CBS among nurses working in surgical clinics, which are the most intense and stressful units. Upon reviewing the literature (15,16), no study investigating

the CBS perceptions of surgical nurses was found. This study will identify the CBS perceptions of nurses working in surgical units, thereby contributing to the literature.

Research Questions

- What is the level of CBS among surgical nurses, and what are the relationships among the cognitive, emotional, and behavioral dimensions of these perceptions?
- Does the CBS of surgical nurses differ based on their sociodemographic characteristics?

MATERIALS and METHODS

Study Design

This study employed a quantitative, descriptive, and cross-sectional research design to determine the perceptions of CBS among nurses working in surgical units.

Population and Sample

The population of this research consisted of 255 surgical nurses working in the surgical units of four hospitals in the Mediterranean region of Turkey from January 24, 2023, to June 24, 2024. This study aimed to reach all surgical nurses in the population without sample selection, and it was conducted with 210 nurses voluntarily to participating and achieving an 82% response rate. The inclusion criteria were: (a) being employed as a nurse in surgical units, (b) volunteering to participate in the research, and (c) having at least one year of experience in a surgical unit. The exclusion criteria included: (d) being on leave during the research period, and (e) desiring to withdraw from the study during its course.

Data Collection

Data were collected face-to-face using a questionnaire method by researchers between January 24, 2023, and June 24, 2024, after obtaining ethical and institutional permissions, from nurses working in the surgical units of four hospitals where the study was conducted.

Instruments

Data for the research were collected using a "Demographic Information Form" and the "CBS Scale (CBSS)."

Demographic Information Form

The Demographic Information Form, created by the researchers, consists of questions regarding the sociodemographic characteristics (age, gender, educational level, etc.) and professional experience of the surgical nurses (3,6).

Crab Basket Syndrome Scale (CBSS)

CBS is a phenomenon that emerges due to both personal and organizational factors. It was developed by Fettahlioğlu and Alkış Dedeoğlu in 2021 to determine whether CBS exists at the institutional level (17). This scale includes cognitive (I consider myself sufficient, my goals motivate me, etc.), emotional (lonely, depressed, furious, helpless, etc.), and behavioral (envy, ambition, lack of communication, etc.) characteristics. The scale consists of 27 items divided into three sub-dimensions: cognitive (items 1-8), emotional (items 9-18), and behavioral (items 19-27). It employs a 5-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The method used for score classification in the scale is the 5-point Likert system. The total scale score is calculated by dividing the participant's total score

from all items by the total number of items; sub-dimension scores are calculated by dividing the total scores of the items of each sub-dimension by the number of items of the relevant sub-dimension. Values closer to 5 will be considered an indication of a higher intensity of the syndrome. There are no reverse-coded statements in the scale (17). The Cronbach's Alpha values for the cognitive, emotional, and behavioral sub-dimensions are 0.902, 0.866, and 0.793, respectively. In this study, the Cronbach's alpha values for the sub-dimensions of CBSS have been determined to be 0.721 for the cognitive sub-dimension, 0.912 for the emotional sub-dimension, and 0.932 for the behavioral sub-dimension.

Ethical Approval

This study was conducted under the ethical research guidelines set forth in the Helsinki Declaration (2013) (16,17). Ethical approval for this research was obtained from the Clinical Research Ethics Committee of Akdeniz University (Number: 70904504/652, Date: 21/11/2022), institutional permission from the General Directorate of Health Services of the Ministry of Health (Number E-15197294-771-9681, Date: 23/01/2023), and permission to use CBSS (Date: 25/04/2022) was obtained from the author via email. Data collection commenced after all permissions were obtained. Researchers provided detailed information about the study, including its purpose and methods, to the nurses. Nurses were asked to sign a verbal and written consent form before filling out the questionnaires. They were also assured that their participation was anonymous and voluntary; they could withdraw from the study without any adverse consequences; and, data confidentiality would be maintained throughout the study.

Data Analysis

The data for this study were analyzed using SPSS (Statistics for Windows, Version 23.0) (IBM Corp., Armonk, NY). Descriptive statistics were employed to define the sociodemographic characteristics and professional experience of the nurses. The relationships between the CBSS scores and categorical variables were examined using non-parametric tests, specifically the Independent Samples T-Test, Mann-Whitney U test (U), and the Kruskal-Wallis H test. In this research, p-value <0.05 was considered statistically significant.

RESULTS

Sociodemographic Characteristics of Nurses

The mean age of the nurses was determined to be 36.51 ± 8.51 . Of the nurses participating in the study, 81% were female, 65.7% were married, 43.8% had a bachelor's degree, and 28.6% had 1-5 years of professional experience. It was found that 48.1% of the nurses were satisfied with their institution, 69.5% were satisfied with the communication they established with their colleagues in the service, 58.1% trusted the head nurse of their service, and 61.4% trusted their colleagues in the service. It was determined that 53.3% of the nurses partially agreed with the competitiveness in their work environment (Table 1).

Crab Basket Syndrome Scale and Sub-Dimension Score Mean

The mean scores for the cognitive, emotional, and behavioral sub-dimensions of the nurses were 2.86 ± 0.67 , 2.93 ± 0.88 , and 2.79 ± 0.95 , respectively, with the overall mean score for CBSS being 2.86 ± 0.68 (Table 2).

Table 1: Sociodemographic characteristics of nurses (n=210)

Variables	X ± SD	Minimum	Maximum
Age (years)	36.51±8.51	22	59
n			%
Gender			
Female	170		81.0
Male	40		19.0
Marital Status			
Married	138		65.7
Single	72		34.3
Educational Level			
Vocational High School	39		18.6
Associate Degree	54		25.7
Bachelor's Degree	92		43.8
Postgraduate Degree	25		11.9
Professional Experience (years)			
1-5	60		28.6
6-10	49		23.3
11-15	39		18.5
16-20	18		8.6
20 ve üzeri	44		21.0
Satisfaction with the Affiliation			
Yes	101		48.1
Undecided	88		41.9
No	21		10.0
Satisfaction with communication with colleagues in the service department			
Yes	146		69.5
Undecided	34		16.2
No	30		14.3
Trust in the Head Nurse			
Yes	122		58.1
Undecided	61		29.0
No	27		12.9
Trust in Colleagues			
Yes	129		61.4
Undecided	52		24.8
No	29		13.8
Perception of Workplace Competition			
Completely Disagree	46		21.9
Partially Disagree	112		53.3
Completely Agree	52		24.8

Notes: X, Mean; SD, Standard deviation.

Table 2: Crab Basket Syndrome Scale and Sub-Dimension Score Mean (n=210).

Sub-Dimension	X ± SD	Median	Minimum	Maximum
Cognitive sub-dimension	2.86±0.67	2.75	1.88	5.00
Emotional sub-dimension	2.93±0.88	2.80	1.00	5.00
Behavioral sub-dimension	2.79±0.95	2.55	1.00	5.00
Total CBSS	2.86±0.68	2.81	1.59	5.00

Notes: X, Mean; SD, Standard Deviation; CBSS, Crab basket syndrome scale

Comparison of Sociodemographic Characteristics with Crab Basket Syndrome Scale Total and Sub-Dimension Scores

Table 3 presents the comparison of the nurses' sociodemographic characteristics with the total and sub-dimension scores of CBSS. Unmarried nurses scored higher on the overall CBSS compared to married nurses, and the difference was statistically significant ($t=2.231$; $p=0.027$). Nurses who were not satisfied with their institution had higher scores in the behavioral sub-dimension compared to other groups, and a statistically significant relationship was found between the groups ($\chi^2=7.352$; $p=0.025$). It was determined that this difference was observed between the "Yes-No" ($U=679.000$; $p=.010$) and "Undecided-No" ($U=638.000$, $p=0.027$) groups. Nurses who were not satisfied with the communication with their colleagues in the service scored higher in the cognitive ($\chi^2=11.555$; $p=0.003$), emotional ($\chi^2=8.665$; $p=0.013$), behavioral ($\chi^2=10.280$; $p=0.006$) sub-dimensions, and the total score of CBSS ($\chi^2=13.811$; $p=0.001$) compared to other groups, and a statistically significant relationship was found (Table 3). This

difference was found to be significant in terms of cognitive ($U=1370.000$; $p=0.001$), emotional ($U=1452.000$; $p=0.004$), behavioral ($U=1397.000$; $p=0.002$), and total score averages ($U=1253.000$; $p<0.001$) between the "Yes-No" groups of satisfied with the communication with their colleagues in the service. In addition, it was determined that there was a significant difference between the "Undecided - No" groups in terms of emotional ($U=345.000$; $p=0.026$), behavioral ($U=318.000$; $p=0.010$), and total score averages ($U=304.000$; $p=0.006$). Nurses who did not trust the head nurse of their service scored higher in the behavioral sub-dimension compared to other groups, and this was statistically significant ($\chi^2=6.057$; $p=0.048$). This difference was found to be significant between the "Yes-No" groups ($U=1225.000$; $p=0.037$).

Nurses not trusting their colleagues in the service scored higher in the cognitive ($\chi^2=6.816$; $p=0.033$), emotional ($\chi^2=19.218$; $p<0.001$), behavioral ($\chi^2=20.399$; $p<0.001$) sub-dimensions, and the total score of CBSS ($\chi^2=21.340$; $p<0.001$) compared to other groups, indicating a statistically significant relationship. This difference was found to be significant in terms of cognitive ($U=1416.000$; $p=0.040$), emotional (Mann-Whitney U test= 935.500 ; $p<0.001$), behavioral ($U=916.500$; $p<0.001$) and total score averages ($U=929.000$; $p<0.001$) between the "Yes-No" groups in terms of trust in colleagues in the unit they work. There was a significant difference between the "Yes- Undecided" groups in terms of cognitive ($U=2711.000$; $p=0.043$) and total score averages ($U=2576.500$; $p=0.015$). In addition, there was a significant difference between the "Undecided -No" groups in terms of emotional ($U=459.500$; $p=0.004$),

Table 3: Comparison of Nurses' Sociodemographic Characteristics with Crab Basket Syndrome Scale Total and Sub-Dimension Score Mean (n=210).

Variables	Cognitive (X±SD)	Emotional (X±SD)	Behavioral (X±SD)	Total CBSS (X±SD)
Gender				
Female	2.90±0.68	2.88±0.88	2.74±0.95	2.84±0.66
Male	2.72±0.62	3.12±0.88	3.01±0.94	2.96±0.72
Test ^a /p	1.517/0.131	-1.514/0.131	-1.600/0.111	-1.032/0.303
Material Status				
Married	2.80±0.62	2.86±0.84	2.71±0.89	2.79±0.63
Single	2.99±0.73	3.07±0.95	2.96±1.04	3.01±0.74
Test ^a /p	1.961/0.051	1.644/0.102	1.827/0.069	2.231/0.027
Education Level				
Vocational Health High School	2.82±0.68	2.86±0.89	2.74±0.98	2.80±0.66
Associate Degree	2.80±0.57	2.77±0.84	2.68±0.92	2.75±0.65
Bachelor's Degree	2.85±0.63	3.00±0.84	2.84±0.92	2.90±0.65
Graduate Degree	3.15±0.91	3.12±1.08	2.92±1.09	3.06±0.81
Test ^b /p	2.143/0.543	3.839/0.279	1.364/0.714	4.454/0.216
Professional Experience (years)				
1-5	2.73±0.55	2.92±0.88	2.73±0.97	2.80±0.66
6-10	2.81±0.63	2.97±0.75	2.88±0.82	2.90±0.60
11-15	3.08±0.90	2.91±0.98	2.84±1.07	2.94±0.75
16-20	2.83±0.71	3.37±0.86	3.15±0.76	3.14±0.72
20 ve üzeri	2.93±0.55	2.73±0.90	2.59±0.99	2.74±0.67
Test ^b /p	5.673/0.225	6.917/0.140	8.319/0.081	5.445/0.245
Satisfaction with the Affiliation				
Yes	2.89±0.63	2.86±0.82	2.70±0.90	2.81±0.61
Undecided	2.87±0.73	2.90±0.90	2.77±0.94	2.85±0.69
No	2.72±0.59	3.39±0.98	3.35±1.10	3.18±0.85
Test ^b /p	1.343/0.511	4.251/0.119	7.352/0.025	3.535/0.171
Satisfaction with communication with colleagues in the service department				
Yes	2.79±0.64	2.86±0.82	2.71±0.90	2.79±0.63
Undecided	2.90±0.60	2.82±1.03	2.66±0.97	2.79±0.70
No	3.21±0.77	3.39±0.89	3.36±1.02	3.33±0.72
Test ^b /p	11.555/0.003	8.665/0.013	10.280/0.006	13.811/0.001
Trust in the Head Nurse				
Yes	2.81±0.64	2.85±0.81	2.68±0.89	2.78±0.62
Undecided	2.86±0.63	2.98±0.92	2.89±0.99	2.91±0.69
No	3.11±0.82	3.18±1.04	3.09±1.09	3.13±0.83
Test ^b /p	4.178/0.124	3.065/0.216	6.057/0.048	5.277/0.071
Trust in Colleagues				
Yes	2.80±0.67	2.75±0.78	2.59±0.83	2.71±0.57
Undecided	2.96±0.65	2.96±0.84	2.85±0.89	2.92±0.62
No	3.00±0.66	3.65±1.01	3.60±1.12	3.44±0.88
Test ^b /p	6.816/0.033	19.218/p<0.001	20.399/p<0.001	21.340/p<0.001
Perception of Workplace Competition				
Completely Disagree	2.94±0.80	2.97±1.03	2.85±1.06	2.92±0.81
Partially Disagree	2.77±0.63	2.91±0.78	2.73±0.85	2.81±0.61
Completely Agree	2.99±0.59	2.93±0.96	2.87±1.06	2.93±0.70
Test ^b /p	7.819/0.020	0.143/0.931	0.305/0.858	0.987/0.610

Notes: X, Mean; SD, Standard deviation; aIndependent Samples t-test; bKruskal Wallis-H test.

behavioral ($U=916.500$; $p=0.003$) and total score averages ($U=929.000$; $p=0.007$). Nurses completely disagreeing with the competitiveness in their work environment scored higher in the cognitive sub-dimension, and the difference between the groups was statistically significant ($\chi^2=7.819$; $p=0.020$) (Table 3). This difference was found to be significant between the “completely disagree- partially disagree” groups in terms of cognitive ($U=2122.000$; $p=0.005$). However, no statistically significant differences were found between the total, cognitive, emotional, and behavioral sub-dimension scores of CBSS and the variables of “gender, educational level, and professional experience” ($p>0.05$) (Table 3).

DISCUSSION

In this study, the perceptions of CBS among nurses working in surgical units were examined. Identifying these perceptions among surgical nurses is crucial for enhancing teamwork, increasing professional satisfaction, and improving the quality of patient care. A literature review revealed that the CBS perceptions of nurses working in surgical and other units have not been previously studied, thus this research contributes novel insights into the potential factors associated with CBS in high-stress work environments. Due to the limited number of nursing studies in the literature, the discussion section has been conducted in comparison with other studies. In professions like surgical nursing, where the workload is high, stress and time pressures are constant, an increase in interpersonal competition and a decrease in solidarity are common phenomena. The

literature emphasizes that heavy workload and stress can enhance jealousy, criticism, and negative interpersonal behaviors (18,19). Research by Altıntaş and Topçu (2024) examining public employees' views on CBS found that public employees experience CBS (20). A study conducted by Aydın and Oğuzhan (2019) in emergency departments aimed at identifying the crab mentality among healthcare workers also highlighted the prevalence of CBS among them (15). Especially in the healthcare sector, where performance metrics are closely monitored, the prioritization of individual achievements over teamwork can potentially trigger CBS. This study indicates that surgical nurses experience a moderate level of CBS, aligning with findings in the literature (15,16, 21).

In this study, it was found that CBS was observed among surgical nurses depending on marital status, satisfaction with the institution, communication with colleagues in the service department, and trust in the head nurse and colleagues, and the difference between the groups was statistically significant. It was observed that single nurses experience higher levels of CBS compared to their married counterparts. Similar to our study findings, Ağalı Ermiş & Akyol (2023) reported in their study that single academicians had a higher perception of CBS (22). This could be explained by single individuals having more limited social support systems at work. Married individuals, with the support of spouses and family, may cope more easily with negative dynamics at the workplace. Additionally, the expectation for single nurses to take on more responsibilities at work may lead them to feel the competitive or conflictual aspects of the work environment more

acutely. However, a study in the literature found that married nurse academicians had a higher perception of CBS compared to single ones (16). Therefore, considering that the perception of CBS may vary based on marital status, further research is needed to better understand this relationship.

Considering that CBS emerges from both individual and organizational factors, it is essential to establish strong interpersonal relationships, promote teamwork, and strengthen support mechanisms to reduce the impact of this syndrome on nurses working in high-stress environments and to enhance overall workplace well-being. Creating a sense of trust in the work environment, improving interpersonal communication and professional solidarity, and enhancing working conditions are critical factors in minimizing the negative effects of CBS on affected nurses (15,16,23).

This study has found that nurses dissatisfied at their workplace exhibited higher levels of negative behavioral attitudes related to CBS. Workplace satisfaction is a concept that reflects an employee's attachment to and motivation for their job (21). İşcan and Sayın (2010) associate workplace satisfaction with the pleasure an employee derives from both the material and moral conditions of their workplace and the team they work with (24). Jealousy, critical behaviors, and unsupportive attitudes among workplace colleagues can negatively affect individual behaviors (25,26). It can be said that the job dissatisfaction of surgical nurses directly reflects on their behaviors and their relationships with coworkers.

In this study, it was determined that nurses who were dissatisfied with their communication with their colleagues in

the ward had higher cognitive, emotional, and behavioral attitudes related to CBS. In the study conducted by Oğuzhan & Aydın with healthcare personnel, it was found that lack of communication was among the underlying reasons for crab mentality behaviors. The participants stated that to reduce these behaviors, communication and social relationships should be supported, individuals exhibiting such behaviors should be dismissed from work, and communication should be reestablished (15). Andrews et al. (2024) in their study noted that coworker support is significant in improving nurses' job satisfaction and intentions to leave their jobs (27). Davis et al. (2022) reported that poor collegial relationships among nurses were significantly negatively correlated with their intention to stay at the job (28). During the COVID-19 pandemic, a study with nurses found that team members were the most crucial support sources, enhancing their work capacity during the pandemic (29). Another study showed that honest and open communication among nurse friends has positive outcomes for both individuals (30). In light of this, factors affecting surgical nurses' job satisfaction and communication skills should be identified, and strategies to cope with attitudes related to CBS should be developed. Enhancing workplace satisfaction could mitigate negative behaviors such as those described by CBS, fostering a more supportive and collaborative work environment.

In this study, it was determined that nurses who did not trust their head nurses and reported experiencing CBS in their work environment exhibited higher levels of behavioral attitudes related to CBS, influenced by the behaviors of their head

nurses. Mutual respectful words, actions, and decision-making processes play a significant role in the development of trust between team leaders and nurses (31). Sing et al. stated in their study that nurse academicians felt insecure due to the rude behaviors exhibited by their superiors, which in turn hindered their academic freedom (32). Gillet and colleagues (2013) emphasized that the trust nurses have in their team leaders is crucial for their success at work and strengthens mutual relationships (33). Hahm et al. (2024) found that nurses' trust levels in their managers were low (34). Mutual trust between team leaders and nurses has been shown to reduce intentions to leave and increase job satisfaction effectively (35,36). Hadi-Moghaddam et al. (2021) in this study found that the majority of nurses demonstrated a high level of trust in nursing managers, including the head nurse and supervisor, across both emotional and cognitive dimensions of trust (37). The literature has identified that managers' toxic leadership behaviors negatively affect internal communication, reducing trust between nurses and managers. Furthermore, nurses exposed to toxic leadership behaviors suffer physical and psychological health detriments, decreased job satisfaction and motivation, a tendency to neglect duties, and reduced work performance (38-41). Sing et al. (2022) stated that the competitive environment among team members in the workplace leads to exploitation among nurse academicians (32). Yalçın and Macit (2022) noted that increased competition in the workplace leads to stress in individuals, adversely affecting their psychological well-being and causing both conscious and unconscious behaviors (41). In this

study, nurses who completely disagreed with the competitiveness in the hospital environment had high cognitive attitudes related to CBS. Considering that hospital administrators and head nurses play a crucial role in the success and quality of care provided by nurses, it is essential to create environments that increase nurses' trust, strengthen communication, enhance job satisfaction, and reduce competition in the clinic. In this context, further research is needed to understand how CBS develops among nurses and to identify their behavioral, cognitive, and emotional processes. In this regard, it is recommended that managers and team members adopt a supportive, merit-based, and fair management approach, strengthen team communication, improve working conditions, and ensure a peaceful and safe work environment. Additionally, holding regular team meetings to discuss identified issues, detecting individuals exhibiting crab mentality behaviors implementing necessary measures, and motivating surgical nurses will be crucial steps in enhancing workplace well-being.

Clinical Impact

Surgical units are areas where teamwork and cohesion are of critical importance due to the heavy workload, stress, and necessity for rapid decision-making. Identification of this syndrome, increased cooperation among surgical nurses, creation of a safe and supportive work environment, and necessary precautions should be taken. Moreover, it facilitates strategic interventions aimed at supporting the psychosocial health of nurses, preventing professional burnout, and enhancing patient safety. In

this context, the results of the study provide valuable information that can increase both individual and organizational awareness, thereby improving the effectiveness and quality of health services.

Strengths and Limitations of the Study

This research is, to the best of our knowledge, the first study to explore the perceptions of CBS among nurses working in surgical units. There are several limitations to the study. First, as the study only includes nurses working in surgical units, the results may not be generalizable to nurses working in other units. Second, variations in age groups and working conditions among the participants may lead to differing perceptions of CBS.

CONCLUSION

The findings of this study indicate that CBS is moderately prevalent among nurses working in surgical units and highlight the relationship between various factors and this syndrome. The results suggest that interventions to improve nurses' working environments, enhance communication, and increase trust could play a significant role in reducing perceptions of CBS. Fostering a supportive leadership approach, encouraging open and effective communication, and ensuring fair workload distribution can strengthen nurses' trust in their work environment. Furthermore, promoting positive team dynamics, implementing policies that enhance job satisfaction, and providing continuous professional development opportunities can improve both individual well-being and the overall quality of patient care. Creating a workplace culture where nurses feel valued, supported, and protected from occupational stressors is essential

in mitigating CBS. In this context, the study offers valuable insights for nursing management and healthcare service planning. Future research should focus on long-term, qualitative studies on CBS and a more in-depth examination of its impact on nurses working in different units.

Conflict of interest: The authors have no conflicts of interest to declare.

Financial support: None.

Acknowledgment: None.

REFERENCES

- 1.Lake ET. Development of the practice environment scale of the nursing work index. *Res Nurs Health*. 2002;25(3):176–88. Doi: 10.1002/nur.10032.
- 2.Aiken LH, Cimiotti JP, Sloane DM, Smith HL, Flynn L, Neff DF. Effects of nurse staffing and Nurse Education on Patient Deaths in Hospitals with Different Nurse Work Environments. *Med Care*. 2011;49(12):1047–53. Doi: 10.1097/MLR.0b013e3182330b6e.
- 3.Karahan E, Çelik S, Sugeçti S. Investigation of Workload Perception, Patient Safety Attitude and Affecting Factors of Nurses Working in Surgical Clinics. *J Educ Res Nurs*. 2021;18(1):1–9. Doi: 10.5152/jern.2021.65983.
- 4.Erdağı S, Özer N. Examination of the working environments, perceptions of patient safety culture, and burnout levels of nurses working in surgical clinics. *J Anatolia Nurs Health Sci*. 2015;18(2):94–106. Doi: 10.17049/ahsbd.90265.
- 5.Bialous SA, Sarna L, Wells MJ, Brook JK, Kralikova E, Pankova A, et al. Impact of online education on nurses' delivery of smoking cessation interventions with implications for evidence-based practice. *Worldviews Evid Based Nurs*. 2017;14(5):367–76. Doi: 10.1111/wvn.12197.
- 6.Mert S, Kersu Ö, Sayılan AA. Examining the Job Stress Experienced by Surgical Nurses and Their Psychological Resilience Status. *Florence Nightingale J Nurs*. 2023;10(1):1–10. Doi: 10.5152/FNJN.2023.22265.
- 7.Sykes M, Gillespie BM, Chaboyer W, Kang E. Surgical team mapping: implications for staff allocation and coordination. *AORN J*. 2015;101(2):238–48. Doi: 10.1016/j.aorn.2014.03.018.
- 8.Mazzocco K, Petitti DB, Fong KT, Bonacum D, Brookey J, Graham S, et al. Surgical team behaviors and patient outcomes. *Am J Surg*. 2009;197(5):678–85. Doi: 10.1016/j.amjsurg.2008.03.002.
- 9.Baker DP, Amodeo AM, Krokos KJ, Slonim A, Herrera H. Assessing teamwork attitudes in healthcare: development of the TeamSTEPPS teamwork attitudes questionnaire. *Qual Saf Health Care*. 2010;19(6):e49. Doi: 10.1136/qshc.2009.036129.
- 10.Mickan S, Rodger S. The organizational context for teamwork: comparing health care and business literature. *Aust Health Rev*. 2000;23(1):179–92. Doi: 10.1071/ah000179.

11. Miller CD. Exploring the crabs in the barrel syndrome in organizations. *J Leadersh Organ Stud.* 2019;26(3):352–71. Doi: 10.1177/1548051819849009.
12. Miller CD. Interpersonal competitive dynamics in the workplace: The dark side of demographic similarity. [Doctoral Thesis]. The University of Texas at Dallas; 2016.
13. Özdemir Y, Üzümlü B. Crab Syndrome. In: Kaygın E, Kosa G, editors. *Organizational Behavior with Its Negative Aspects.* 2019. p. 125–138.
14. Soubhari T, Kumar Y. The crab–bucket effect and its impact on job stress: an exploratory study with reference to autonomous colleges. *Int J Recent Innov Trends Comput Commun.* 2014;2(10):3022–7. Doi: <https://doi.org/10.17762/ijritcc.v2i10.3342>.
15. Aydın GZ, Oğuzhan G. The “crabs in a bucket” mentality in healthcare personnel: A phenomenological study. *Hitit Univ J Soc Sci Inst.* 2019;12(2):618–30. Doi: 10.17218/hititsosbil.628375.
16. Efe Sayan N, Altuntaş S. Perception of crab basket syndrome as a career obstacle in academicians nurses. *BANU J Health Sci Res.* 2024;6(3):575–84. doi:10.46413/boneyusbad.148492
17. Fettahlioğlu ÖO, Alkış Dedeoğlu A. Crab in barrel syndrome and scale development study. *J Int Soc Res.* 2021;14(77):125–38.
18. Karacabay K, Savcı A, Çömez S, Çelik N. Determination of the Relationship Between Surgical Nurses' Perceptions of Workload and Their Tendency to Make Medical Errors. *Mersin Univ J Health Sci.* 2020;13(3):404–17. Doi: 10.26559/mersinsbd.686481.
19. Kinter O, Katı Y. The mediation effect of job stress and burnout on the relationship between workload and turnover intention: An application in the healthcare sector. *Aybü Külliye Int J Soc Sci.* 2022;23(4):852–63. Doi: 10.37880/cumuiibf.1090558.
20. Altıntaş M, Topçu T. Views of public employees on the crab barrel syndrome: A qualitative study. *J Adm Sci.* 2024;22(52):448–78. doi:10.35408/comuybd.1396898.
21. Othman MI, Khalifeh A, Oweidat I, Nashwan AJ. The relationship between emotional intelligence, job satisfaction, and organizational commitment among first-line nurse managers in Qatar. *J Nurs Manag.* 2024;32(1):5114659. Doi: 10.1111/jonm.13750.
22. Ermiş SA, Akyol G. The Relationship of Academicians' Levels of Crabs in a Barrel Syndrome and Their Organizational Justice. *Akdeniz J Sport Sci.* 2023;6(2):476–496. doi:10.38021/asbid.1253699.
23. O'Flynn-Magee K, Rodney P, Maitland S, Proznick K, Turner H, Esson L, et al. The CRAB workshop: Using forum theatre and cognitive rehearsal to address bullying in nursing education. *Qual Adv Nurs Educ.* 2021;7(2):1–16. doi:10.17483/2368-6669.1290.
24. İşcan ÖF, Sayın U. Determination of the Relationship Between Surgical Nurses' Perceptions of Workload and Their Tendency to Make Medical Errors. *Atatürk Univ J Econ Adm Sci.* 2010;24(4):195–216.
25. Lawrence TB, Robinson SL. Ain't Misbehaving: Workplace deviance as organizational resistance. *J Nurs Manag.* 2007;33(3):378–94. doi:10.1177/0149206307300814.
26. Li M, Xu X, Kwan HK. Consequences of workplace ostracism: A meta-analytic review. *Front Psychol.* 2021;12:641302. doi:10.3389/fpsyg.2021.641302.
27. Andrews MC, Woolum A, Mesmer-Magnus J, Viswesvaran C, Deshpande S. Reducing turnover intentions among first-year nurses: The importance of work centrality and coworker support. *Health Serv Manage Res.* 2024;37(2):88–98. doi:10.1177/09514848211051234.
28. Davis SG, Davis E, Kintz K, Opsahl A. Nurse educator perceptions of workplace collegiality. *Nurse Educ.* 2022;47(5):288–92. doi:10.1097/NNE.0000000000001131.
29. Besen DB, Günbaş M, Dervişoğlu M. COVID-19 experiences of Turkish intensive care nurses: A qualitative study. *Turk J Intensive Care.* 2023;21(3):126–34. doi:10.4274/tybd.galenos.2023.12345.
30. Thorpe K, Kalischuk RG. A collegial mentoring model for nurse educators. *Nurs. Forum.* 2003;38(1):5–15. doi:10.1111/j.1744-6198.2003.tb01197.x.
31. Han NK, Lee T, Kim J. A comparative study on trust, collaboration, and teamwork of other healthcare personnel by nurses working on integrated nursing care service wards versus nurses on general wards. *J Korean Acad Nurs.* 2020;26(4):316–30. doi:10.1111/jkana.2020.26.4.316.
32. Singh C, Jackson D, Munro I, Cross W. Job experiences, challenges, revelations and narratives of nurse academics: A qualitative study. *JAN.* 2022;78(8):2622–33. doi:10.1111/Jan. 15232.
33. Gillet N, Fouquereau E, Bonnaud-Antignac A, Mokoukolo R, Colombat P. The mediating role of organizational justice in the relationship between transformational leadership and nurses' quality of work life: A cross-sectional questionnaire survey. *IJNS.* 2013;50(10):1359–67. doi:10.1016/j.ijnurstu.2012.12.012.
34. Hahm SY, Gu M, Sok S. Influences of communication ability, organizational intimacy, and trust among colleagues on job satisfaction of nurses in comprehensive nursing care service units. *Front. Public Health.* 2024;12:1354972. doi:10.3389/fpubh.2024.1354972.
35. Kim SY, Kim EK, Kim B. Effects of nurses' self-leadership and team trust on organizational commitment. *J Korean Acad Nurs.* 2016;22(4):353–61. doi:10.1111/jkana.2016.22.4.353
36. Lee BS, Eo YS, Lee MA. Development of job satisfaction scale for clinical nurses. *J Korean Acad Nurs.* 2018;48(1):12–25. doi:10.4040/jkan.2018.48.1.12.
37. Hadi-Moghaddam M, Karimollahi M, Aghamohammadi M. Nurses' trust in managers and its relationship with nurses' performance behaviors: A descriptive-correlational study. *BMC Nurs.* 2021;20(1):1–8. doi:10.1186/s12912-021-00574-2.
38. Abdallah SAE, Mostafa SAM. Effects of toxic leadership on intensive care units staff nurses' emotional intelligence and their organizational citizenship behaviors. *TSNJ.* 2021;22(3):211–40. doi:10.21608/tsnj.2021.123456.
39. Bakkal E, Serener B, Myrvang NA. Toxic leadership and turnover intention: Mediating role of job satisfaction. *Rev. Cercet. si Interv. Soc.* 2019;66:88–102.
40. Farghaly Abdelaliem SM, Abou Zeid MAG. The relationship between toxic leadership and organizational performance: The mediating effect of nurses' silence. *BMC Nurs.* 2023;22(1):4. doi:10.1186/s12912-023-01034-5.
41. Yalçın T, Macit M. The effect of psychological well-being on organizational deviance behaviors and intention to leave work: A research in health institutions. *Kahramanmaraş Sütçü İmam Univ J Fac Econ Adm Sci.* 2022;12(2):47–69.