# QUEEN BEE SYNDROME IN ACADEMIA: A CROSS-SECTIONAL ANALYSIS OF WOMEN ACADEMIC NURSES' PERCEPTIONS AND INFLUENTIAL FACTORS

**Asst. Prof. Ayşe ÇİÇEK KORKMAZ (Ph.D )** *

**Prof. Serap ALTUNTAŞ (Ph.D )** **

## ABSTRACT

*Queen Bee Syndrome and its influencing factors among Turkish women academic nurses were examined in a cross-sectional study with 305 participants. Data were collected using an introductory identification form and the Queen Bee Syndrome Scale. The mean score on the scale was 2.97±0.68, with significant differences based on age, university type, residence area, academic title and experience, managerial experience, future institutional preferences, willingness to switch universities, perception of working with male managers, support from women managers, institutional support for women managers, and personal experiences of Queen Bee Syndrome. Factors like ease of working with male managers, institutional support for women employees to become managers, and a desire to support women employees accounted for 40.9% of the variability in Queen Bee Syndrome. This study highlights the significant perception of Queen Bee Syndrome among Turkish women academic nurses, influenced by personal, professional, and institutional factors.*

*Keywords: Queen bee syndrome, women academic nurses, women managers, nurses, Turkey*

*Jel Codes: D23, J16, M12*

## 1. INTRODUCTION

The role of women in the workplace is paramount, yet they frequently face significant hurdles, particularly in career advancement (Abalkhail, 2020: 380). A notable challenge in this context is the Queen Bee Syndrome (QBS), a distinctive attitude women managers display towards their female subordinates in organizational settings (Taparia & Lenka, 2022: 383; O'Neil, Brooks & Hopkins, 2018: 330). Initially characterized by Staines et al. (1973) as a "reluctant attitude of women managers to promote another woman" (Webber & Giuffre, 2019: 3), QBS has evolved into a metaphor for

accomplished women in management positions who are perceived as self-centered, insensitive, and power-driven, often obstructing the career growth of their counterparts (Zhao & Foo, 2016: 1).

This phenomenon is predominantly observed in male-dominated societies and organizations, where successful independent women may adopt masculine management styles influenced by organizational culture and structure to advance their careers (Aksu & Şahin, 2022: 2; Derks, Van Laar & Ellemers, 2016: 457). In such environments, women leaders often perceive their junior female colleagues as competitors, fostering a climate of competition, mistreatment, and negative experiences reflective of their career paths (Aksu & Şahin, 2022: 6-7).

In this study, we delve into the subdimensions of QBS - Support, Structure, and Sufficiency - to understand its multifaceted nature. The Support subdimension assesses the extent to which women employees feel backed by female managers, underscoring issues like competition, power struggles, and rivalry, mirroring the reluctance to promote other women. The Structure subdimension examines perceptions around women managers, including attitudes towards their personality and management style, reflecting the metaphorical connotations of QBS as women in leadership roles navigate male-dominated environments. The Sufficiency subdimension evaluates perceived competency, addressing concerns about the authority and experience of women managers, which are central to their ability to support or hinder the advancement of their subordinates (Çelen & Tuna, 2021: 2139; Poyraz, 2022:9).

These dimensions provide a comprehensive framework to understand the intricacies of QBS in professional settings, where it not only serves as a barrier to career progression for women (Karabal & Çakı, 2021: 49; O'Neil et al., 2018:330) but also complicates long-term professional trajectories and organizational dynamics. QBS can influence managerial decisions, create conflicts, and erode commitment to professional growth (Abalkhail, 2020: 393; Bloom, 2019; Faniko et al., 2021: 393-394), making it essential to explore the working relationships among women from this unique perspective (O'Neil et al., 2018: 328).

## 2. LITERATURE REVIEW

While recent years have witnessed an increasing number of studies across various fields addressing this emerging concern (Allen & Flood, 2018; Çelen & Tuna, 2021; Karabal & Çakı, 2021; Kobal, 2021), research in the realm of nursing, a predominantly women profession, remains scarce (Poyraz, 2022; Şengül et al., 2019). These studies have unveiled defining characteristics of nurse managers exhibiting QBS tendencies (Grmek, 2020; Şengül et al., 2019), along with certain behaviors mimicked by student nurses, which contribute to competition, conflicts, and a hindrance in their professional development within the institution (Dermaku & Balliu, 2021; Grmek, 2020). Moreover, QBS can potentially drive women to relinquish their positions and exit their professional pursuits.

In the academic sphere, QBS has also garnered attention within higher education institutions (Reynolds, 2022). Amidst heightened career competition in academic domains, studies have been conducted on academic nurses across diverse disciplines (Allen & Flood, 2018; Faniko et al., 2021; Tekyazman, 2019). Even in this realm, women academics perceive each other as competitors, refraining from celebrating success or sharing ideas (Allen & Flood, 2018: 12-22). However, no study thus far has delved into QBS among academic nurses, comprising managers and employees. Filling this gap, this study aims to unveil women academic nurses' perceptions of QBS and the influential factors. The study's outcomes contribute by shedding light on the prevailing scenario, offering valuable data for educational institution leaders seeking potential resolutions and serving as a foundation for future research endeavors.

## 3. METHODOLOGY

### 3.1. Aims and design

The primary objective of this study, designed as a cross-sectional study, was to identify the perceptions of Queen Bee Syndrome (QBS) among women academic nurses and the factors that influence these perceptions. The research was guided by the following questions: (1) To what extent do women academic nurses perceive QBS? (2) What factors affect the perceptions of QBS among women academic nurses?"

### 3.2. Sampling Methods

The study population consisted of academic nurses working in Turkish universities that provide undergraduate nursing education (n=2,514). According to the power analysis conducted using the A-priori Sample Size Calculator for Multiple Regression (Soper, 2021), with an anticipated effect size of 0.15, a desired statistical power level of 0.95, a probability level of 0.05, and several predictors/independent variables of 19, the targeted sample size was determined to be 218 academic nurses. To account for a potential 10% data loss, our study aimed to reach a minimum sample size of 239 participants.  The inclusion criteria for the study were as follows: (1) being a women academic nurse working in one of the institutions providing undergraduate nursing education in Turkey, (2) having a women supervisor, and (3) volunteering to participate in the study. Male and women academic nurses with male supervisors were excluded from the study sample as they did not meet the sampling criteria (n=28). The final analysis was conducted using the responses of 305 academic nurses selected through simple random sampling and met the inclusion criteria.

### 3.3. Measures

*The Introductory Identification Form* includes 19 questions about the participant's personal and professional characteristics (such as age, marital status, education level, type of university employed at,

etc.) as well as their perceptions of women managers and employees (easy manager to work with, desire to support women employees, etc.).

*Queen Bee Syndrome Scale (QBSS),* developed by Çelen and Tuna (2021), assesses perceptions of QBS among women employees working under women managers. The scale is composed of three subdimensions: Support (SUS with nine items), Structure (STS with eight items), and Sufficiency (SFS with ten items), totaling 27 items scored on a five-point Likert scale (5=Strongly agree, 1=Strongly disagree). Items 1, 4, 5, 8, 10, 15, and 17 are reverse-scored. The scale is evaluated based on mean scores, with higher scores indicating a more vital perception of QBS in the corresponding subdimension. Çelen and Tuna (2021) reported a Cronbach's alpha coefficient of 0.94 for the scale, which was found to be 0.90 in the current study.

### 3.4. Data Collection

Data for the study were collected online in survey form between April and June 2022. The link to the online survey was sent to the institutional email addresses of the academic nurses, along with information about the research and an invitation to participate. The first page of the questionnaire presented a consent form to the participants. Only those who agreed to participate could proceed to the subsequent questions. A reminder email was sent to the academic nurses one month later.

### 3.5. Data Analysis

The data were analyzed using SPSS (25.0) statistical software. The Kolmogorov-Smirnov test and skewness and kurtosis coefficients were used to test for normality in the data distribution. To analyze the data, Cronbach's alpha coefficient, descriptive statistics (percentage, frequency, mean, standard deviation), independent samples t-test, and ANOVA were used for group comparisons, with the Tukey test used for post hoc analyses. The results were interpreted at a 95% confidence interval and a significance level of $p < 0.05$. Cohen's f was used to interpret the effect size for ANOVA test results, and Cohen's d values were used for t-tests. Effect size values for Cohen's f were 0.10 (small), 0.25 (medium), and 0.40 (large), while Cohen's d values were 0.20 (small), 0.50 (medium), and 0.80 (large), respectively (Huberty et al., 2019).

The dependent variable of the research was the women academic nurses' perception of QBS. In contrast, the independent variables comprised their personal and professional characteristics and thoughts on women managers and employees.

### 3.6. Ethical consideration

Ethical approval was obtained from a public university's Non-Invasive Research Ethics Committee for Health Sciences (Date:11.03.2022; No: 2022-20). Permission to use the QBS used in the research was obtained from its developer via email. Also, academic nurses were provided with an

informed consent form and explanations about the research, providing their voluntary participation in the study.

## 4. RESULTS

### 4.1. Characteristics of the participants

The majority of the women academic nurses participating in the study were aged 35-45 years (46.6%), married (67.9%), had a Ph.D. degree (63.9%), and worked in state universities (83.6%) within health sciences faculties (65.6%). Most held the title of assistant professor (30.5%) and were in the department of nursing management (14.8%). Most had less than seven years of institutional experience (54.4%) and less than 15 years of academic experience (68.9%). Before becoming academics, most had experience in nursing (92.5%) but no experience in management (56.4%). The majority resided in the Black Sea Region (16.1%) or Aegean Region (15.4%). More than half wished to continue working at their current institution (53.4%), but nearly half considered moving to a different university (46.2%).

Most women academic nurses found it easier to work with male managers (63.3%) in their institutions. However, they still reported experiencing the QBS (71.5%). Nonetheless, they supported women employees (92.1%) and believed that their institutions' managers encouraged women to take on managerial roles (73.1%).

### 4.2. QBSS score and subscores

The participants' lowest mean score on the QBSS subdimensions was in the sufficiency subdimension (M=2.80±0.55), while their highest score was in the structure subdimension (M=3.28±1.01), with a total mean score of M=2.97±0.68.

The participants scored the lowest mean in the sufficiency subdimension (SFS) of the QBSS (M=2.80±0.55). Their highest mean score was in the structure subdimension (STS) (M=3.28±1.01), with a total mean score of M=2.97±0.68.

**Table 1. Differences in QBSS mean scores according to women academic nurses' personal and professional characteristics (n=305)**

| Personal and Professional Characteristics | | n | % | QBSS Total M±SD | QBSS subdimension | | |
|---|---|---|---|---|---|---|---|
| | | | | | SUS M±SD | STS M±SD | SFS M±SD |
| Age | 24-34[1] | 92 | 30.2 | 3.06±0.71 | 3.01±0.79 | 3.45±0.99 | 2.79±0.58 |
| | 35-45[2] | 142 | 46.6 | 2.99±0.69 | 2.89±0.78 | 3.28±1.03 | 2.86±0.54 |
| | 46 or above[3] | 71 | 23.3 | 2.80±0.62 | 2.67±0.70 | 3.04±0.95 | 2.73±0.49 |
| | **F, p** | | | 2.900, **0.05*** | 3.857, **0.02*** | 3.300, **0.03*** | 1.049, 0.35 |
| | **Tukey** | | | 1>3 | 1>3 | 1>3 | |
| | **Cohen's f** | | | 0.13 | 0.15 | 0.14 | |
| Marital status | Married | 207 | 67.9 | 2.95±0.65 | 2.84±0.75 | 3.27±0.96 | 2.80±0.52 |
| | Unmaried | 98 | 32.1 | 2.99±0.75 | 2.95±0.81 | 3.29±1.10 | 2.80±0.59 |
| | **t, p** | | | -0.486, 0.62 | -1.169, 0.24 | -0.147, 0.88 | 0.072, 0.94 |
| Education level | Master degree | 20 | 6.6 | 2.87±0.60 | 2.87±0.55 | 3.03±0.95 | 2.74±0.49 |
| | Pursuing a master degree | 10 | 3.3 | 2.85±0.73 | 2.95±0.78 | 3.1±1.18 | 2.52±0.45 |
| | Doctoral degree | 195 | 63.9 | 2.95±0.70 | 2.83±0.82 | 3.26±1.30 | 2.80±0.55 |
| | Pursuing a doctoral degree | 80 | 26.2 | 3.05±0.67 | 2.97±0.71 | 3.39±1.01 | 2.84±0.56 |
| | **F, p** | | | 0.621, 0.60 | 0.632, 0.59 | 0.793, 0.49 | 1.092, 0.35 |
| Type of university | State University | 255 | 83.6 | 3.00±0.68 | 2.92±0.77 | 3.31±0.99 | 2.84±0.54 |
| | Private Foundation Univesity | 50 | 16.4 | 2.77±0.70 | 2.66±0.78 | 3.12±1.11 | 2.60±0.51 |
| | **t, p** | | | 2.157, **0.03*** | 2.112, **0.03*** | 1.204, 0.22 | 2.834, **0.00*** |
| | **Cohen's d** | | | 0.33 | 0.33 | | 0.45 |
| Area of residence | The Mediterranean R.[1] | 37 | 12.1 | 3.03±0.78 | 2.90±0.81 | 3.37±1.11 | 2.86±0.67 |
| | The Eastern Anatolia R.[2] | 12 | 3.9 | 3.07±0.47 | 2.98±0.60 | 3.48±0.78 | 2.81±0.30 |
| | The Aegean R.[3] | 47 | 15.4 | 2.95±0.72 | 2.89±0.89 | 3.26±1.01 | 2.74±0.49 |
| | The Southeastern AnatoliaR.[4] | 18 | 5.9 | 3.03±0.74 | 2.98±0.94 | 3.16±1.05 | 2.97±0.49 |
| | The Central Anatolia R.[5] | 45 | 14.8 | 3.21±0.55 | 3.11±0.69 | 3.66±0.67 | 2.93±0.54 |
| | The Black Sea R.[6] | 49 | 16.1 | 2.76±0.57 | 2.66±0.57 | 2.95±0.94 | 2.70±0.52 |
| | The Marmara Rn[7] | 97 | 31.8 | 2.92±0.72 | 2.82±0.77 | 3.22.11 | 2.76±0.55 |
| | **F, p** | | | 1.860, 0.08 | 1.456, 0.145 | 2.200, **0.04*** | 1.240, 2.28 |
| | **Tukey** | | | | | 5 >6 | |
| | **Cohen's f** | | | | | 0.20 | |
| Type of institution | Health Sciences Faculty[1] | 200 | 65.6 | 2.94±0.69 | 3.21±1.04 | 2.84±0.77 | 2.80±0.52 |
| | Nursing Faculty[2] | 81 | 26.6 | 2.94±0.66 | 3.28±0.89 | 2.84±0.75 | 2.75±0.57 |
| | Health/ Nursing College[3] | 24 | 7.9 | 3.29±0.69 | 3.77±1.01 | 3.24±0.76 | 2.95±0.62 |
| | **F, p** | | | 2.900, **0.05** | 3.214, **0.04** | 2.908, **0.05** | 1.194, 0.37 |

| | **Tukey** | | | **3>1** | **3>1** | **3>1** | **3>1** |
| | **Cohen's f** | | | **0.13** | **0.14** | **0.13** | **0.08** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Department | Surgical Diseases N. | 36 | 11.8 | 2.89±0.70 | 2.75±0.78 | 3.21±1.10 | 2.77±0.50 |
| | Child Health and Disease N. | 38 | 12.5 | 2.92±0.98 | 2.91±0.78 | 3.23±0.93 | 2.69±0.54 |
| | Women's Health and Diseases N. | 36 | 11.8 | 3.08±0.66 | 3.06±0.74 | 3.45±0.94 | 2.81±0.56 |
| | Public Health N. | 29 | 9.5 | 2.72±0.58 | 2.61±0.67 | 2.85±0.95 | 2.70±0.49 |
| | Fundamentals of N. | 41 | 13.4 | 3.06±0.76 | 2.97±0.85 | 3.35±1.06 | 2.90±0.62 |
| | Nursing Management | 45 | 14.8 | 2.99±0.60 | 2.84±0.73 | 3.33±0.92 | 2.84±0.48 |
| | Internal Medicine N. | 33 | 10.8 | 3.17±0.74 | 3.09±0.88 | 3.57±1.037 | 2.93±0.59 |
| | Mental Health and Psychiatric N. | 31 | 10.2 | 2.85±0.66 | 2.70±0.68 | 3.12±0.99 | 2.76±0.55 |
| | Nursing Department | 16 | 5.3 | 2.92±0.78 | 2.87±0.74 | 3.25±1.23 | 2.71±0.62 |
| | **F, p** | | | 1.261, 0.264 | 1.401, 0.19 | 1.295, 0.24 | 0.797, 0.60 |
| Academic title | Professor[1] | 28 | 9.2 | 2.57±0.53 | 2.43±0.61 | 2.68±0.79 | 2.60±0.45 |
| | Associate professor[2] | 39 | 12.8 | 2.85±0.69 | 2.69±0.75 | 3.10±1.02 | 2.79±0.54 |
| | Assistant professor[3] | 93 | 30.5 | 2.98±0.66 | 2.83±0.77 | 3.31±0.99 | 2.84±0.51 |
| | PhD. Lecturer[4] | 19 | 6.2 | 3.13±0.76 | 3.01±0.92 | 3.60±1.02 | 2.87±0.73 |
| | Lecturer[5] | 53 | 17.4 | 2.94±0.68 | 2.93±0.71 | 3.20±1.04 | 2.75±0.53 |
| | PhD. Research Assistant[6] | 13 | 4.3 | 3.35±0.84 | 3.50±0.94 | 3.82±1.17 | 2.85±0.67 |
| | Research Assistant[7] | 60 | 19.7 | 3.09±0.66 | 3.04±0.71 | 3.46±0.95 | 2.84±0.56 |
| | **F, p** | | | 3.114, **0.00*** | 4.170, **0.00*** | 3.314, **0.00*** | 0.933, 0.47 |
| | **Tukey** | | | **6 >1, 7 >1** | **6 >1, 6 >2 , 7 >1** | **4 >1, 6 >1, 7 >1** | |
| | **Cohen's f** | | | **0.24** | **0.28** | **0.25** | |
| Academic experience | 7 years or less[1] | 108 | 35.5 | 2.93±0.73 | 2.85±0.82 | 3.24±1.08 | 2.75±0.57 |
| | 8-15years [2] | 102 | 33.4 | 3.09±0.65 | 2.98±0.76 | 3.48±0.97 | 2.88±0.53 |
| | 16-23 years[3] | 55 | 18 | 3.03±0.66 | 2.94±0.72 | 3.28±0.95 | 2.91±0.56 |
| | 24 years or more[4] | 40 | 13.1 | 2.66±0.57 | 2.58±0.71 | 2.85±0.89 | 2.57±0.41 |
| | **F, p** | | | 4.229, **0.00*** | 2.681, **0.04*** | 3.919, **0.00*** | 4.305, **0.00*** |
| | **Tukey** | | | **2 >4, 3 >4** | **2 >4** | **2 >4** | **2 >4, 3 >4** |
| | **Cohen's f** | | | **0.20** | **0.16** | **0.19** | **0.20** |
| Institutional experience | 7 yearsor less | 166 | 54.4 | 2.94±0.70 | 2.85±0.79 | 3.28±.1.04 | 2.76±0.55 |
| | 8-15 years | 82 | 26.9 | 3.01±0.65 | 2.90±0.76 | 3.33±0.93 | 2.86±0.52 |
| | 16-23 years | 40 | 13.1 | 3.10±0.68 | 3.08±0.74 | 3.34±1.02 | 2.92±0.56 |
| | **24 years or move** | 17 | 5.6 | 2.64±0.65 | 2.57±0.67 | 2.79±0.96 | 2.58±0.55 |
| | **F, p** | | | 1.951, 0.121 | 1.902, 0.12 | 1.461, 0.225 | 2.040, 0.108 |
| Nursing experience | Yes | 282 | 92.5 | 2.96±0.69 | 2.87±0.78 | 3.27±1.02 | 2.80±0.55 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | No | 23 | 7.5 | 2.98±0.58 | 2.94±0.62 | 3.30±0.91 | 2.75±0.48 |
| | **t, p** | | | -0.087, 0.93 | -0.427, 0.67 | -0.118, 0.90 | 0.423, 0.67 |
| Managerial experience | Yes | 133 | 43.6 | 2.88±0.65 | 2.77±0.72 | 3.14±0.98 | 2.76±0.54 |
| | No | 172 | 56.4 | 3.03±0.70 | 2.95±0.80 | 3.38±1.03 | 2.83±0.55 |
| | **t, p** | | | -1.922, **0.05*** | -2.015, **0.04*** | -2.006, **0.04*** | -0.973, 0.33 |
| | **Cohen's d** | | | **0.22** | **0.23** | **0.23** | |
| The desire to work in the current institution in the future | Yes[1] | 163 | 53.4 | 2.75±0.64 | 2.63±0.71 | 2.99±0.98 | 2.69±0.50 |
| | No[2] | 71 | 23.3 | 3.33±0.65 | 3.31±0.74 | 3.73±0.91 | 3.01±0.58 |
| | Neutral[3] | 71 | 23.3 | 3.09±0.65 | 3.01±0.73 | 3.48±0.97 | 2.84±0.54 |
| | **F, p** | | | 20.953, **0.00*** | 23.810, **0.00*** | 16.988, **0.00*** | 9.560, **0.00*** |
| | **Tukey** | | | **2 >1, 3 >1** | **2 >1, 2>3, 3 >1** | **2>1, 3 >1** | **2 >1** |
| | **Cohen's f** | | | **0.37** | **0.39** | **0.33** | **0.25** |
| The desire to switch to another university | Yes[1] | 141 | 46.2 | 3.18±0.67 | 3.12±0.78 | 3.59±0.95 | 2.90±0.58 |
| | No[2] | 102 | 33.4 | 2.75±0.64 | 2.63±0.71 | 2.93±0.96 | 2.72±0.52 |
| | Neutral[3] | 62 | 20.3 | 2.83±0.64 | 2.71±0.70 | 3.14±1.02 | 2.70±0.48 |
| | **F, p** | | | 13.934, **0.00*** | 14.891, **0.00*** | 14.295, **0.00*** | 4.756, **0.00*** |
| | **Tukey** | | | **1 >2, 1>3** | **1 >2, 1>3** | **1 >2, 1>3** | **1 >2, 1>3** |
| | **Cohen's f** | | | **0.30** | **0.31** | **0.30** | **0.17** |

*R:Region ,N. Nursing,M: Mean, SD:Standart Deviation, F: One Way ANOVA , t: Independent simple t test, *p < 0.05*

Concerning the QBSS mean scores with the thoughts of women academic nurses towards women managers and employees, the mean scores of those who are heads of the department of women management, who believe that working with male managers is easier, who think that the institution does not support women employees becoming managers, whom themselves do not support women employees and express to have experienced the QBS are higher both in all subdimensions and in the full scale. There are also significant differences between the groups in both subdimensions and the full scale regarding other factors evaluated besides the women's management position (p<0.05). Considering the effect sizes on the QBS perception, these factors have a high level of impact on both all subdimensions and the full scale (see Table 2).

**Table 2. Differences in QBSS mean scores according to women academic nurses' perceptions on women managers and employees (n=305)**

| Perceptions on women managers and employees | | n | % | QBSS Total M±SD | QBSS subdimension | | |
|---|---|---|---|---|---|---|---|
| | | | | | SUS M±SD | STS M±SD | SFS M±SD |
| Position of the women manager evaluated | Dean/Manager | 110 | 36.1 | 2.96±0.67 | 2.86±0.75 | 3.28±0.99 | 2.78±0.57 |
| | Department Head | 135 | 44.3 | 2.91±0.71 | 2.81±0.80 | 3.20±1.05 | 2.78±0.54 |
| | Heads of the Department | 60 | 19.7 | 2.97±0.68 | 3.04±0.76 | 3.44±0.93 | 2.88±0.49 |
| | **F, p** | | | 1.608, 0.20 | 1.879, 0.15 | 1.236, 0.29 | 0.894, 0.41 |
| Easy manager to work with | Male manager | 193 | 63.3 | 3.20±0.63 | 3.12±0.72 | 3.59±0.92 | 2.96±0.55 |
| | Woman manager | 112 | 36.7 | 2.56±0.57 | 2.45±0.67 | 2.73±0.93 | 2.52±0.41 |
| | **t, p** | | | 8.805, **0.00*** | 8.070, **0.00*** | 7.899, **0.00*** | 7.77, **0.00*** |
| | **Cohen's d** | | | **1.06** | **0.96** | **0.92** | **0.90** |
| Support by the institution's managers to women employees to become managers | Yes, supports | 223 | 73.1 | 2.77±0.62 | 2.68±0.71 | 3.02±0.97 | 2.66±0.49 |
| | No, does not support | 82 | 26.9 | 3.49±0.56 | 3.41±0.70 | 3.97±0.78 | 3.17±0.51 |
| | **t, p** | | | -8.979, **0.00*** | -7.921,**0.00*** | -8.732,**0.00*** | -7.881,**0.00*** |
| | **Cohen's d** | | | **1.21** | **1.03** | **1.07** | **1.01** |
| The desire to support women employees | Yes, I support | 281 | 92.1 | 2.91±0.66 | 2.81±0.73 | 3.20±0.99 | 2.76±0.52 |
| | No, I do not support | 24 | 7.9 | 3.67±0.63 | 3.69±0.78 | 4.11±0.83 | 3.29±0.64 |
| | **t, p** | | | -5.434, **0.00*** | -5.639,**0.00*** | -4.318,**0.00*** | -4.685,**0.00*** |
| | **Cohen's d** | | | **1.17** | **1.16** | **0.99** | **0.90** |
| QBS experience | Yes | 218 | 71.5 | 3.12±0.68 | 3.04±0.77 | 3.48±1.00 | 2.91±0.56 |
| | No | 87 | 28.5 | 2.57±0.51 | 2.46±0.62 | 2.76±0.83 | 2.52±0.41 |
| | **t, p** | | | 6.765, **0.00*** | 6.819,**0.00*** | 6.435,**0.00*** | 5.820,**0.00*** |
| | **Cohen's d** | | | **0.91** | **0.82** | **0.78** | **0.79** |

*M: Mean, SD:Standart Deviation, F: One Way ANOVA , t: Independent simple t test, *p < 0.05*

### 4.4. Factors associated with QBS: Multiple regression analysis

Multiple regression analysis was performed to identify the factors influencing Queen Bee Syndrome (QBS). All the regression assumptions were met. The results of the regression analysis revealed that the model was significant ($F = 17.18$, $p < 0.001$) and could explain approximately 40.9% of the variance in QBS ($R^2 = 0.409$). In this study, the factors found to significantly influence QBS in academic nurses included being an easy manager to work with ($\beta = 0.26$, p= 0.00), support by the institution's managers for women employees to become managers ($\beta = 0.26$, p=0.01), and the desire to support women employees ($\beta = 0.12$, p=0.00). Notably, being an easy manager to work with emerged as the most significant factor influencing QBS (see Table 3).

**Table 3. Factors associated with Queen Bee Syndrome (n = 305)**

| Variables[a] | B | S.E[b] | β | t | P | VIF |
|---|---|---|---|---|---|---|
| **Constant** | 71.40 | 4.11 | | 17.37 | 0.00 | |
| Age | 1.34 | 2.09 | 0.03 | 0.64 | 0.52 | 1.37 |
| Type of university | 3.72 | 2.34 | 0.07 | 1.59 | 0.11 | 1.16 |
| Type of institution | 4.113 | 3.27 | 0.06 | 1.25 | 0.21 | 1.20 |
| Area of residence | 3.92 | 2.37 | 0.07 | 1.65 | 0.10 | 1.06 |
| Academic title | 4.50 | 4.28 | 0.04 | 1.05 | 0.29 | 1.12 |
| Academic experience | 2.68 | 1.85 | 0.06 | 1.45 | 0.62 | 1.14 |
| Managerial experience | -0.96 | 1.95 | -0.02 | -0.49 | 0.14 | 1.40 |
| The desire to work in the current institution in the future | 4.02 | 2.30 | 0.09 | 1.74 | 0.08 | 1.42 |
| The desire to switch to another university | 0.01 | 1.91 | 0.08 | 1.57 | 0.11 | 1.36 |
| Easy manager to work with | 10.13 | 1.85 | 0.26 | 5.45 | **0.00** | 1.19 |
| Support by the institution's managers to women employees to become managers | 11.06 | 2.06 | 0.26 | 5.35 | **0.01** | 1.25 |
| The desire to support women employees | 8.397 | 3.27 | 0.12 | 2.56 | **0.00** | 1.16 |
| QBS experience | -6.75 | 1.97 | -0.16 | -3.48 | **0.001** | 1.14 |
| | | | **R=0.659 R² =0.409 F = 17.18 p=0.000** | | | |

*[a]Dummy variables; [b]Standard error.*

## 5. DISCUSSION

While recent years have seen an increase in women's roles within the professional sphere, there remains a discrepancy in their level of participation, especially in senior roles. They encounter various career challenges, including career barriers erected by their women colleagues. The Queen Bee Syndrome (QBS) is a significant example of these barriers, impeding the professional advancement of women, who are already underrepresented, and limiting their access to managerial and decision-making

roles. As a result, it becomes crucial to investigate inter-women relationships within organizations predominantly staffed by women, particularly during career progression, to understand better the implications of QBS (O'Neil et al., 2018: 329-330).

Our study, among the pioneering investigations into QBS within educational institutions for nursing—organizations with a majority of women employees and high competition—reveals that women academic nurses' perception of QBS sits slightly above average across both subdimensions and the total scale. Perception is highest within the structural subdimension and lowest within the sufficiency subdimension. These findings point to a moderate prevalence of QBS and indicate that women academic nurses may view their women superiors as lacking in competency, withhold necessary support, and disapprove of their leadership style and personality. A study conducted in Brazil also found QBS among women in leadership positions in higher education institutions (Gomes et al., 2022) and among women academic nurses in sports in higher education institutions (Tekyazman, 2019).

In this investigation, the perceived QBS levels are moderately prevalent, a finding that brings both relief and concern. It is encouraging that despite a predominantly women environment, which can often intensify the impacts of QBS, the perceptions of this phenomenon are not excessively high. This aspect gains particular importance considering the widely accepted view that Queen Bee Syndrome frequently emerges in settings where women in male-dominated professions might obstruct the growth and advancement of their female peers (Aksu & Şahin, 2022: 2; Baykal, 2018). However, the fact that participants still report QBS experiences and find working with male managers easier underscores the need to address this issue. This study also draws attention to the importance of managerial behavior. The ease of working with a manager, particularly a male one, significantly influences QBS perception, implying the potential role of managerial strategies and communication styles in mitigating the syndrome.

Equally significant are the findings regarding the role of institutional support for women employees aiming for managerial positions and the common desire among colleagues to support women employees. The absence of such support was identified as a factor that influences QBS. Thus, fostering an environment of mutual support and institutional backing for aspiring women managers is vital in combatting QBS. Even though QBS is not intensely prevalent in the studied setting, solidifying support systems for women employees cannot be overemphasized. These systems not only help negate the effects of QBS but also promote a healthier work environment, underlining the need for further research in this area.

In this study, we identified the influence of various personal and professional characteristics on Queen Bee Syndrome (QBS) perceptions among women academic nurses. Initially, we found that the QBS perceptions are higher among younger and less experienced research assistants at the beginning of

their academic careers and those who have not yet become faculty members. This finding is consistent with existing literature, where it is often noted that senior women in managerial positions tend to have more expertise, knowledge, and authority, often taking on the roles of guiding, teaching, mentoring, leading, and decision-making compared to young academics (Aksu & Şahin, 2022: 6). Furthermore, it is often stated that younger academics may struggle to meet the expectations of their more experienced counterparts, thus intensifying their perception of QBS. The moderate level of QBS perception among the participants in the present study supports this view.

Moreover, we observed that women academics with more institutional experience might have higher QBS perceptions, possibly due to their familiarity with the institution's leaders or inability to meet career expectations. We also evaluated QBS perceptions according to academic nurses' thoughts about women managers and employees. In this regard, it was determined that academic nurses with department heads find it easier to work with male managers, think that the institution's managers do not support women in managerial positions, do not support women employees themselves, and experience QBS have higher QBS perceptions.

Our findings align with previous studies that show that career expectations of women academics are sometimes underestimated by older women academics (Faniko et al., 2020), as well as other studies indicating that junior women academics seek more support in their careers and not all women managers support other women in the workplace (O'Neil et al., 2018: 331-332; Webber & Giuffre, 2019: 4).

However, our overall statistical analyses, considering factors such as age, type of university, academic title and experience, managerial experience, and desire to move to another university, did not determine a statistically significant effect on QBS perceptions. This suggests that while multiple factors may influence QBS perception, each factor may not have a significant impact independently. It suggests the complexity of QBS as a phenomenon that may involve the interaction of many variables. As a result, we conclude that a more complex and multidimensional approach is required to understand the factors influencing QBS perception among women academics.

### 5.1. Study strengths and limitations

The strength of this study lies in its pioneering investigation into the perceptions of Queen Bee Syndrome (QBS) among women academic nurses and its influencing factors, providing a unique perspective on an under-researched area. However, it is also essential to acknowledge its limitations. The sample is limited to the participants' responses, which restricts the generalizability of the findings across other contexts. The online data collection method could have contributed to a decreased response rate, thus potentially introducing a response bias. Another limitation stems from the dearth of comparable studies on QBS among nurses, making it challenging to contextualize and discuss our findings against a broader body of research.

### 5.2. Study implications and recommendations for further research

This study can guide deans, managers, policymakers, and academic nurses in understanding the factors influencing Queen Bee Syndrome (QBS) and devising strategies to mitigate it. As nursing education institutions play a critical role in developing a qualified healthcare workforce for the future, addressing this issue is amplified by producing high-quality nurses for the healthcare sector and serving as role models in nursing education. To tackle this phenomenon, nursing academics should foster a positive and inclusive academic culture that values and respects all colleagues, creating a positive and equitable working environment.

In this context, providing awareness-raising training to more experienced and senior female academics could be beneficial. Such training should promote positive behavioral and attitudinal changes, specifically targeting behaviors and attitudes that contribute to QBS, particularly those related to the contemplation of leaving the job. Additionally, managerial nursing academics should develop policies and procedures that promote a positive academic culture, helping to mitigate the adverse effects of QBS and foster a more supportive and effective academic environment.

Educational institution administrators should exercise caution in appointing female academics to managerial positions, mainly mindful of not assigning those who may exhibit QBS behaviors. Supporting younger, less experienced female academics through more empathetic management, advisory, and mentorship approaches is also recommended.

Furthermore, academic nurses must incorporate topics related to QBS and other negative workplace behaviors into nursing education and research. Educators, researchers, and policymakers can enhance awareness of this issue in the nursing community.

## 6. CONCLUSION

Our study illuminates the complex nature of QBS among women academic nurses, demonstrating its association with both personal-professional characteristics, as well as their perceptions of women managers and colleagues. Factors like ease of working with male managers, institutional support for women employees to become managers, and a desire to support women employees accounted for 40.9% of the variability in Queen Bee Syndrome. Particularly noteworthy is the finding that institutional culture, especially perceptions of support for women in managerial roles, significantly influences QBS perceptions. This underscores the importance of organizational context in understanding and addressing QBS in academic settings. The findings suggest a need for further exploration into how

institutional policies and practices can be optimized to foster more supportive and inclusive environments.

## REFERENCES

Abalkhail, J. M. (2020) "Women managing women: hierarchical relationships and career impact," *Career Development International*, 25(4), 389–413. https://doi.org/10.1108/CDI-01-2019-0020

Aksu, M. & Şahin, B. (2022) "Theoretical Analysis Of The Problem Of Masculinization On The Career Path Of Women In The Context Of Queen Bee Syndrome," *Suleyman Demirel University Journal of Human Resources Management,* 1(1), 1–25. Retrieved January 8, 2023, from https://dergipark.org.tr/en/pub/sduikyd/issue/73606/1212783

Allen, T. G., & Flood, C. T. (2018) "The Experiences of Women in Higher Education: Who Knew There Wasn't a Sisterhood?" *Leadership and Research in Education*, 4, 10–27.

Baykal, E. (2018) "Queen Bee Syndrome In The Lıght Of Socıal Identıty Theory," *KTUJSS*, 8(16),159–175. Retrieved February 3, 2023, from https://dergipark.org.tr/en/pub/sbed/issue/41926/356760

Bloom, E. M. (2019) "Horizontal violence among nurses: Experiences, responses, and job performance," *In Nursing Forum*, 54(1), 77–83. https://doi.org/10.1111/nuf.12300

Çelen, O., & Tuna, M. (2021) "Queen Bee Syndrome Perceptions of Women Employees in Hospitality Businesses A Scale Development Study to Measure", *Journal Of Turkish Tourism Research,* 5(3), 2127–2148. https://doi.org/10.26677/TR1010.2021.838

Derks B, Van Laar C., & Ellemers N. (2016) "The queen bee phenomenon: Why women leaders distance themselves from junior women" *The Leadership Quarterly,* 27:456-69. https://doi.org/10.1016/j.leaqua.2015.12.007

Dermaku, A., & Balliu, E. (2021) "Views on Conflict Related to the Causes of Conflict and the Management Strategies," *International Journal Papier Public Review,* 2(1),18–22. https://doi.org/10.47667/ijppr.v2i1.67

Faniko, K., Ellemers, N. & Derks, B. (2020) "The queen bee phenomenon in Academia 15 years after: Does it still exist, and if so, why?", *British Journal of Social Psychology*, 60,383-399. https://doi.org/10.1111/bjso.12408

Gomes, M.B., Grangeiro, R.R., & Esnard, C. ( 2022) "Academic women: A study on the queen bee phenomenon," *Revista de Administração Mackenzie,* 23(2), eRAMG220211. https://doi.org/10.1590/1678-6971/eRAMG220211.en

Grmek, M. (2020) "Who are the Queen Bees?: A systematic review of literature". [Master dissertation, Catolica Porto Business School]. Google Scholar

Huberty, J., Eckert, R., Dueck, A., Kosiorek, H., Larkey, L., Gowin, K., & Mesa, R. (2019) "Online yoga in myeloproliferative neoplasm patients: results of a randomized pilot trial to inform future research," *BMC Complementary and alternative medicine*, 19(1), 1–12. https://doi.org/10.1186/s12906-019-2530-8

Karabal, M. A., & Çakı, N. (2021) "Social and Psychological Barriers Women Face in Professional Life: Examination of Theses on Glass Ceiling Syndrome and Queen Bee Syndrome," *Journal of Theoretical & Empirical Research on Management,* 1(1), 47–64. Google Scholar

Kobal, H. Y. (2021) "A Qualitative Study of Women Working in the Private Sector in the Context of the Queen Bee Phenomenon", *KADEM Journal of Women's Studies,* 7(1), 53–78. https://doi.org/10.21798/kadem.2021.51

O'Neil, D.A., Brooks, M.E. & Hopkins, M.M. (2018). "Women's roles in women's career advancement: What do women expect of each other?" *Career Development International,* 23(3), 327–344. https://doi.org/10.1108/CDI-10-2017-0196

Poyraz, Z.Y. (2022). "Queen bee syndrome and its relationship with leadership: Sample of the health sector." (Publication No. 752020). [Master dissertation, University of Ordu ]. Retrieved January 27, 2023, from https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp

Reynolds, T.A. (2022) "Our Grandmothers' Legacy: Challenges Faced by Women Ancestors Leave Traces in Modern Women's Same-Sex Relationships," *Arch Sex Behav* 51, 3225–3256. https://doi.org/10.1007/s10508-020-01768-x

Şengül, H., Çınar, F., & Bulut, A. (2019) "The perception of queen bee phenomenon in nurses; a qualitative study in the health sector," *Niger J Clin Pract,* 22(7), 906–12. Google Scholar

Soper, D.S. (2021) "A-priori sample size calculator for multiple regression" [Software]. https://www.danielsoper.com/statcalc

Taparia, M., & Lenka, U. (2022) "An integrated conceptual framework of the glass ceiling effect," *Journal of Organizational Effectiveness: People and Performance*, 9(3), 372–400. https://doi.org/10.1108/JOEPP-06-2020-0098

Tekyazman, E.F. (2019) "The queen bee syndrome in higher education institutions offering sports education." [Master thesis, Manisa Celal Bayar University]. Google Scholar

Webber, G. R., & Giuffre, P. (2019) "Women's relationships with women at work: Barriers to solidarity," *Sociology Compass*, 13(6), e12698. https://doi.org/10.1111/soc4.12698

Wuertele, R. (2017) "The influence of the Queen Bee Syndrome on the attitudes, behaviors, and emerging leadership styles of the Millennials". [Master thesis, Linnaeus University]. Google Scholar

Zhao, S., & Foo, M. D. (2016) "Queen Bee Syndrome. The real reason women do not promote women", *Center for Creative Leadership*. Retrieved January 15, 2023, from http://cclinnovation.org/wp-content/uploads/2020/03/queen-bee-syndrome.pdf

| KATKI ORANI / *CONTRIBUTION RATE* | AÇIKLAMA / *EXPLANATION* | KATKIDA BULUNANLAR / *CONTRIBUTORS* |
|---|---|---|
| Fikir veya Kavram / *Idea or Notion* | Araştırma hipotezini veya fikrini oluşturmak / *Form the research hypothesis or idea* | Asst. Prof. Ayşe ÇİÇEK KORKMAZ<br><br>Prof. Serap ALTUNTAŞ |
| Tasarım / *Design* | Yöntemi, ölçeği ve deseni tasarlamak / *Designing method, scale and pattern* | Asst. Prof. Ayşe ÇİÇEK KORKMAZ<br><br>Prof. Serap ALTUNTAŞ |
| Veri Toplama ve İşleme / *Data Collecting and Processing* | Verileri toplamak, düzenlenmek ve raporlamak / *Collecting, organizing and reporting data* | Asst. Prof. Ayşe ÇİÇEK KORKMAZ<br><br>Prof. Serap ALTUNTAŞ |
| Tartışma ve Yorum / *Discussion and Interpretation* | Bulguların değerlendirilmesinde ve sonuçlandırılmasında sorumluluk almak / *Taking responsibility in evaluating and finalizing the findings* | Asst. Prof. Ayşe ÇİÇEK KORKMAZ<br><br>Prof. Serap ALTUNTAŞ |
| Literatür Taraması / *Literature Review* | Çalışma için gerekli literatürü taramak / *Review the literature required for the study* | Asst. Prof. Ayşe ÇİÇEK KORKMAZ<br><br>Prof. Serap ALTUNTAŞ |