

# Exploring Gender and Leadership Trajectories in Academic Anesthesiology: Qualitative Content Analysis of Turkish Department Chairs

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## ABSTRACT

**Background and aim:** In the evolving landscape of anesthesiology, anesthesiologists play a pivotal role that extends beyond providing clinical care. Anesthesiologists exhibit adept collaboration skills, particularly in high-stress environments, showcasing their leadership and management proficiencies. While the terms "leader" and "manager" hold distinct connotations, leaders often fulfill managerial roles. Gender disparities are prevalent in anesthesiology leadership, mirroring broader trends across professions. In 2023, this study conducts a bibliometric analysis of academic professionals holding department head positions in Turkish anesthesiology and reanimation, scrutinizing gender distribution and categorizing them based on their institutions' administrative attributes to illuminate leadership patterns within the field.

**Material & Methods:** The hospitals in our country that offer anesthesiology and reanimation training clinics were categorized into three groups. The official websites of each hospital within the group were individually reviewed to gather information on anesthesiology specialist physicians who serve as department managers in the anesthesiology and reanimation clinics. The quantity of male and female anesthesiology department managers in each group was computed and thereafter compared between the groups.

**Results:** An analysis of the gender distribution among anesthesiology department managers in hospitals with training clinics revealed that 54% were male and 46% were female. There was no

difference in the gender distribution between the three categories based on the analysis of data from a total of 100 institutions ( $p>0.05$ ).

**Conclusion:** In 2023, the proportion of female anesthesiologists in leadership positions within their respective departments in our country exceeds the reported global average for female anesthesiologists.

**Key words:** Gender equity; leadership; anesthesia; academia

## INTRODUCTION

Gender parity in healthcare yields numerous benefits in relation to the provision of patient care. A workforce that is diverse in nature enhances accessibility for the population being served. Male and female physicians adopting diverse practice approaches could potentially benefit the patient population (1-3). The presence of a gender-balanced healthcare team is advantageous as it enhances the synergy of interpersonal abilities. Gender equity enhances the growth of the physician workforce, fortifies the bond between physicians and patients, increases patient satisfaction, and improves overall patient outcomes (1). There has been a recent surge in interest regarding studies focused on fostering gender equality. There is a lack of proportional representation of women in academic and professional spheres. This frequently deters women from pursuing academic and professional careers. Women

are underrepresented in senior leadership roles, according to a study of 25 of the top medical schools in the world. The medical industry still lacks gender equality, particularly in higher-ranking jobs (4). Although medical schools have achieved gender parity in terms of enrollment, female physicians remain underrepresented in academic staff and leadership roles. There is a notable lack of representation of female anesthesiologists in leadership roles, as academic authors, and as conference speakers (4,5). Female physicians across all specialties experience lower rates of academic opportunity, equitable compensation, and leadership positions in comparison to their male counterparts (5). In 2019, it was reported that women accounted for only 24% of full-time professors in the United States (USA). Additionally, gender-based financial disparities are prevalent in academic medical specialties. The medical culture continues to promote competitive individualism and masculine leadership ideas. The conventional perception of leadership aligns well with masculine behavioral characteristics, including competitiveness, ambition, and confidence. In this way of thinking, women are expected to act the same way (4,6). The perception that a woman's leadership style is inherently feminine, and that her evaluations may reflect this, leads to criticism regarding "status incompatibility" and further reinforces the gender hierarchy (4). Indeed, it is widely acknowledged that female leaders have a tendency to embrace a leadership style characterized by greater democracy and participation, which is a more appropriate approach to leadership (1,7). Anesthesiology program directors assert that women's specialization processes are detrimentally impacted in relation to their academic pursuits, technical proficiencies, and social connections as a result of circumstances like as pregnancy and maternity leave (5). The aim of this study is to conduct a bibliometric analysis of the academic

professionals who hold leadership positions in the department of anesthesiology and reanimation in Turkey in 2023. The analysis will focus on their gender distribution and will involve classifying and comparing these individuals based on the administrative characteristics of their respective institutions.

## **MATERIAL AND METHOD**

This was a national gender determination study. Ethics committee application was submitted for the study; however, approval was waived due to data collection methods (document and web-based internet scanning). The objective of our research was to ascertain the gender distribution of anesthesiologists occupying leadership roles within medical facilities that house anesthesiology and reanimation training clinics. Anesthesiology and reanimation clinics were evaluated with the following groups:

Group 1: Education and Research hospitals of the Ministry of Health,

Group 2: State University hospitals,

Group 3: Foundation University hospitals.

The official websites of each hospital group were accessed to acquire information on the physicians who served as department heads in the anesthesiology and reanimation clinics. Information was collected from the official websites of each institution and verified by direct communication with the clinical secretaries. Institutions where the designated anesthesiologist was not specified on the webpage were not included in the study. The total count of male and female anesthetic department heads was determined for each group, and a comparison was made between the groups.

## **STATISTICAL ANALYSIS**

Data was recorded and analyzed using SPSS 21. Frequency and percentages for gender and hospital types were calculated. Following determination of department heads, data of the 3 groups was compared using the Pearson Chi-Square test with a significance value of  $p < 0.05$ .

## RESULTS

Data of the heads of anesthesiology and reanimation departments in 111 institutions was accessed. Eleven institutions, for which information on the head of the

anesthesia department could not be obtained, were omitted from the study. The data from a total of 100 institutions were reviewed, with 26 in Group 1, 53 in Group 2, and 21 in Group 3 (Figure 1).

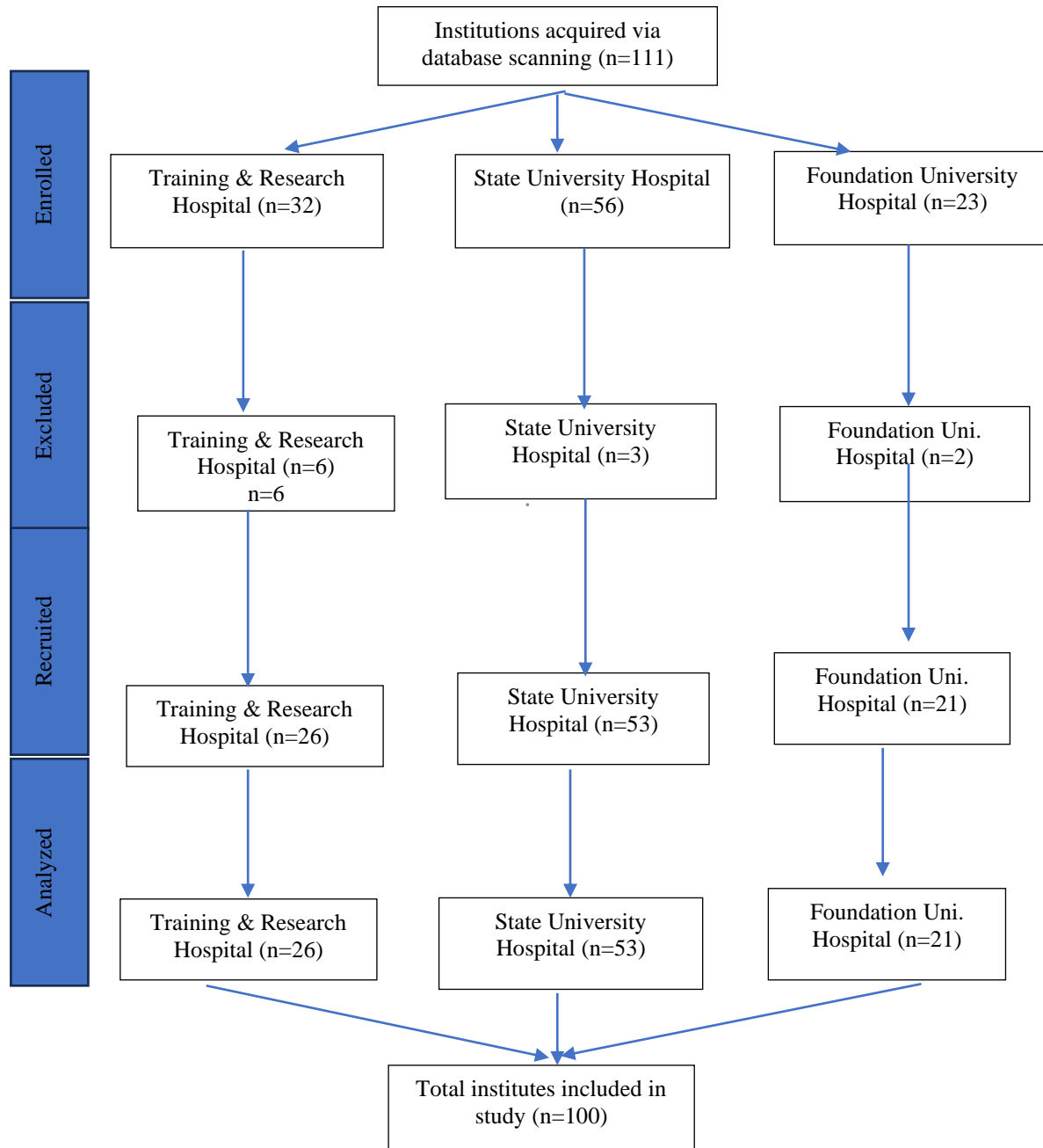


Figure 1. Flow chart of the study

Upon examining the gender distribution of the anesthesia department heads in institutions with training clinics, 54% were found to be male and 46% were female. The gender distributions in each group were as shown in Table 1. There was no

statistically significant variation in gender distribution between the groups ( $p>0.05$ ).

Table 1. Gender distribution between groups

	Group 1(n)	Group 2 (n)	Group 3 (n)	p
Male	17	26	11	0.387
Female	9	27	10	
Total	26	53	21	

The chi-square statistic is 1.900, The p-value is 0.387, n: Number,

## **DISCUSSION**

Based on data from 100 hospitals in Turkey with training clinics in 2023, it was found that among training and research hospitals, 17 out of 26 anesthesiology department heads were male and 9 were female. Among the state university hospitals, 26 department heads were male and 27 were female. In foundation universities, 11 out of 21 department heads were male and 10 were female. Out of a total of 100 hospitals, the gender distribution of anesthesiology department heads had a male/female ratio of 54/46. Additionally, the rate of female anesthesiology department heads was 46%. These statistics indicate that the gender distribution in the department head position within the anesthesiology departments is balanced. Although gender equity remains elusive in the medical profession, particularly in senior positions, our data reveals that male and female physicians hold comparable leadership positions in the field of anesthesiology in Turkey.

There has been a recent surge in interest in studies focused on fostering gender equality. There has also been a rise in the participation of women in anesthesia conferences, panels, and seminars. This was noted during the 2022 meetings of the European Society of Anesthesiology and Intensive Care (ESAIC) and the American Society of Anesthesiologists (ASA) (4,8). In a study conducted by Bissing et al. (9), the representation of women in leadership positions in academic anesthesiology in the US between 2006 and 2016 was examined. The study focused on department heads, directors of medical education programs, and clinical officers. The findings revealed that the initial female representation rate was 36%, which decreased to 29% in 2016. This decline was considered to be significant. It was reported, though, that the percentage of women leading anesthesiology departments remained at 14%. Furthermore, a separate study indicated that female anesthetists are underrepresented in diverse leadership roles within academic organizations and journal

editorial boards (6). According to our country's 2023 data, the female representation rate of 46% in hospitals with training clinics is deemed satisfactory in terms of achieving a balanced gender distribution. This circumstance may be indicative of the equitable distribution of male and female anesthesiologists in our country. The 2023 statistics from the Turkish Anesthesiology and Reanimation Association reveals that out of the total registered anesthesiologists, 2225 are women and 1790 are males, resulting in a female/male ratio of 55.4%/44.6%.

Environmental variables and cultural structure are recognized as impediments to achieving gender equality in academic promotion within the field of anesthesiology. Basile et al. (10) conducted a study with 26 female anesthesia leaders and found that a key attribute of these leaders is the presence of influential mentors who provide significant support. Consequently, the researchers concluded that there is a lack of female representation in leadership positions within the field of anesthesia.

There are certain limitations to our study. It is important to recognize that potential oversights of other orientations may have occurred as a result of our inability to directly consult subject matter experts and the inability of participants to self-identify their gender orientation. Additionally, the LGBTQ+ community and individuals who choose not to disclose their gender orientation were not taken into consideration. We wish to state unequivocally that our stance regarding this matter should not be construed as an instance of prejudice or exclusion. More specifically, it was mandated by the study's design and constraints. Nevertheless, we acknowledge the necessity for further research to investigate matters such as gender orientation, discrimination, and related concerns.

Consequently, in 2023, the proportion of female anesthesiologists serving as department heads in our country is more

than the proportion of leading female anesthesiologists worldwide. The issue of guaranteeing gender equality in the field of anesthesia persists globally. Regrettably, there is a lack of female anesthesiologists in leadership positions, mostly because they are subjected to explicit, implicit, and personal biases. Therefore, women are unable to attain adequate professional success in academic and leadership domains. Future study should focus on examining strategies to address biases in social interactions and the medical community that impede the progress of female anesthetists.

## CONCLUSION

In 2023, while the proportion of female anesthesiologists serving as department heads in our country exceeds the global average, gender equality challenges persist in the field of anesthesia worldwide. Implicit, explicit, and personal biases limit women's advancement in academic and leadership roles, necessitating strategies to counteract these biases and foster the professional progress of female anesthetists.

## Declaration by Authors

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