

# GENDER DISCRIMINATION AMONG PHYSICIANS

By

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## Abstract

**Introduction:** Women's representation in the health sector has risen throughout time, especially in higher-paying healthcare jobs. Gender discrimination and disparities are systematic, according to recent research findings. **Aim of Work:** To assess the presence of any gender-based workplace discrimination among physicians. **Materials and Methods:** A cross-sectional study was conducted on 314 Egyptian physicians after reviewing many academic work-related gender-inequality questionnaires. A new questionnaire was created and used. **Results:** The study included 314 Egyptian physicians. Their mean age was  $31.73 \pm 3.37$  years, 58.3% were females, 69.1% were married, 71.7% were of urban residence, 88.9% had enough income and 70.4% had master's degree in their specialty. Most of the participants (89.9%) were working in the clinical field, 66.6% worked more than eight hours/day and all of them had co-workers of both genders. About 82.5% of females believed that males had more job opportunities, while 64.5% did not believe there was equality in rights and needs for both genders in their workplace. One-third of males said their boss assigned them to work tasks based on their gender; 13.7% of all males thought their current employer had ever treated them unfairly in terms of vacations, 16.0% in terms of work schedule planning, 22.1% in terms of working hours, and 31.3% thought their boss would assign them to important work tasks based on their gender. **Conclusion and Recommendations:** Even though female health care workers (HCW) believe that males have more job opportunities and that there is inequality in rights and needs for both genders at work, male HCW advocate for more workloads, longer working hours, and vacation restrictions. Preventing gender inequality at work requires the establishment of strong leadership commitment, regular gender bias training and flexible work arrangements.

**Keywords:** Physicians, Gender discrimination, Gender disparity and Health workers

## Introduction

Gender imbalances in the health workforce pose a significant challenge for health policymakers, despite previous achievements. Furthermore, improving gender equity is critical for increasing workforce numbers, distribution, and skill mix(Zurn et al., 2004).

In comparison to men, female health care physicians usually operate in less prestigious fields. They are largely under-represented and under-utilized in academic medicine, and they face gender discrimination in the classroom and research opportunities (Foster et al., 2000; Nonnemaker, 2000 and Riska, 2001).

A systematic literature review of gender in health pre-service education and general tertiary systems published in 2012 revealed massive interventions to counter the disadvantage caused by pregnancy and family responsibilities, as well as interventions promoting gender equality in general (Newman et al., 2017).

Other factors such as ethnicity, sexual orientation, and disability have dissatisfied the World Health Organization's (WHO) efforts to

address gender inequality in the workplace. According to intersectional theorists, the impact of gender on health is determined by multiple axes of power relations' that result from interactions between gender and other individual characteristics (Hankivsky and Christoffersen, 2008, and Bates et al., 2009).

According to the World Bank, female employment in the Egyptian market was estimated to be 23% in 2018 (The world bank,Women Economic Empowerment Study, 2018). Egypt ranked 134th out of 153 countries in the global gender gap index 2020(Global Gender Gap Report, 2020 ).

## Aim of Work

To assess the presence of any gender discrimination in the workplace among Egyptian physicians.

## Materials and Methods

**Study design:**It is a cross-sectional study.

**Place and duration of study:** Participants used Google Forms to complete this online questionnaire in English. It was distributed via online Egyptian medical platforms . The study was conducted in April 2021.

**Study sample:** The study included 314 Egyptian physicians. The inclusion criteria were as follows: being Egyptian, working in the Egyptian medical field, working full-time, on a permanent contract, and duty for the previous six months. Any participant who has a history of psychiatric disorders (through history of any psychiatric disease or related mediactions) that could interfere with the questionnaire's results or works exclusively with the same gender were excluded. Since this was an online survey, a convenient non-probability sampling technique was used.

After reviewing many academic work-related-gender-inequality questionnaires(Quine , 1999, Miao et al. 2017,Heininen et al. 2019); the authors developed this one, which may be most appropriate for the Egyptian medical work environment. A panel of two occupational health and one public health professors reviewed the questionnaire and suggested changes. Before the start of the main study, the authors conducted a pilot study with 25 medical personnel (who were excluded from the main study). The reliability analysis of the questionnaire resulted in 0.739 Cronbach's  $\alpha$  (acceptable). The goal of this pilot was to ensure that all

the questions were clear and simple to understand. The questions were of the Yes/NO variety, multiple-choice, or short-answer variety. The questionnaire was anonymous, and the purpose was explained to the participants before they began answering the questions.

**The questionnaire included:**

**Part 1:** Sociodemographic questions such as age, gender, place of residence, marital status, and income.

**Part 2:** Work-related questions, including job type, working hours, and gender of coworkers.

**Part 3:** Questions about gender discrimination at work.

The participants were divided into groups based on their gender and then compared in terms of the questionnaire items.

## **Ethical Approval**

The Institutional Review Board of Menoufia University's Faculty of Medicine approved the study protocol. The study followed the Helsinki Declaration and its subsequent amendments' ethical principles. The very first section of the study questionnaire included an informed consent to participate and publish

(the participant couldn't proceed with the study question without consent agreement). The World Health Organization's 2006 World Health Report defined health care workers as "all people engaged in activities whose primary goal is to improve health."

### **Consent**

Everyone who took part was a volunteer and had the option to leave at any time. All of the data was treated with confidentiality and was only used for research purposes.

### **Data Management**

Data were expressed in Number (No), percentage (%) mean ( $\bar{x}$ ), and standard deviation (SD). The Chi-square test ( $\chi^2$ ) was used to study the association between qualitative variables. Whenever any of the expected cells were less than five, Fischer's Exact test was used. The student's t-test was used for the comparison of quantitative variables between two groups of normally distributed data. Two-sided p-value of  $< 0.05$  was considered statistically significant.

## Results

The study included 314 Egyptian physicians. Their mean age was  $31.73 \pm 3.37$  years, 58.3% were females, 69.1% were married, 71.7% were of urban residence, 88.9% had enough income and 70.4% were having a master's degree in their specialty. Most of the participants (89.9%) were working in the clinical field, 66.6% worked more than eight hours/day and all of them had co-workers of both genders.

**Table 1: Comparison between males and females regarding sociodemographic characters:**

Characters	Males(No=131) No. (%)	Females(No=183) No. (%)	Total	p value
<b>Age in years (Mean± SD)</b>	31.59 ± 2.71	31.83 ± 3.78	31.73 ± 3.37	0.513
<b>Marital status</b>				
Single	45 (34.4)	52 (28.4)	97 (30.9)	0.262
Married	86 (65.6)	131 (71.6)	217 (69.1)	
<b>Residence</b>				
Rural	42 (32.1)	47 (25.7)	89 (28.3)	0.216
Urban	89 (67.9)	136 (74.3)	225 (71.7)	
<b>Income</b>				
Enough	120 (91.6)	159 (86.9)	279 (88.9)	0.190
Not enough	11 (8.4)	24 (13.1)	35 (11.1)	
<b>Scientific grade</b>				
MBBCH	5 (3.8)	16 (8.7)	21 (6.7)	0.159
Master	92 (70.2)	129 (70.5)	221 (70.4)	
Doctorate	34 (26.0)	38 (20.8)	72 (22.9)	

There was no significant difference between males and females regarding their mean age, marital status, residence, income, or scientific-grade as shown in table (1).

**Table 2: Comparison between males and females regarding the work related conditions:**

Characters	Males (No=131) No. (%)	Females(No=183) No. (%)	Total	p value
<b>Work type</b>				
Clinical	125 (95.4)	157 (85.8)	282 (89.8)	<b>0.005*</b>
Academic	6 (4.6)	26 (14.2)	32 (10.2)	
<b>Work hours /day</b>				
<8h	23 (17.6)	82 (44.8)	105 (33.4)	<b>&lt;0.001*</b>
≥8h	108 (82.4)	101 (55.2)	209 (66.6)	

\* : Statistically significant

Most of the male participants (95.4%) were working in the clinical field;which was significantly higher than the female participants with  $p = 0.005$ . Males were also significantly higher in working more than eight hours/day than females ( $P < 0.001$ ), as seen in the table (2).

**Table 3a: Comparison between males and females regarding work-related gender disparities:**

Characters	Males (No=131) No. (%)	Females (No=183) No. (%)	Total (No=314)	p value
<b>Do you think you are treated equally at the work place as the opposite sex</b> NO Yes	8 (6.1) 123 (93.9)	61 (33.3) 122 (66.7)	69 (22.0) 245 (78.0)	<b>&lt;0.001*</b>
<b>Does your boss assign you to work-tasks based on your gender?</b> NO Yes	90 (68.7) 41 (31.3)	156 (85.2) 27 (14.8)	246 (78.3) 68 (21.7)	<b>&lt;0.001*</b>
<b>Do you feel that your workmates treat you differently based on your gender?</b> NO Yes	121 (92.4) 10 (7.6)	131 (71.6) 52 (28.4)	252 (80.3) 62 (19.7)	<b>&lt;0.001*</b>
<b>Do you feel that your current employer has ever treated you unrightfully in providing work equipment?</b> NO Yes	117 (89.3) 14 (10.7)	161 (88.0) 22 (12.0)	278 (88.5) 36 (11.5)	0.714
<b>Do you feel that your current employer has ever treated you unrightfully in having vacations?</b> NO Yes	113 (86.3) 18 (13.7)	172 (94.0) 11 (6.0)	285 (90.8) 29 (9.2)	<b>0.020*</b>
<b>Do you feel that your current employer has ever treated you unrightfully in planning work schedule?</b> NO Yes	110 (84.0) 21 (16.0)	170 (92.9) 13 (7.1)	280 (89.2) 34 (10.8)	<b>0.012*</b>
<b>Do you feel that your current employer has ever treated you unrightfully in training opportunities?</b> NO Yes	125 (95.4) 6 (4.6)	173 (94.5) 10 (5.5)	298 (94.9) 16 (5.1)	0.725

\* : Statistically significant

Almost one-third of the female participants believed they were not treated equally as their male coworkers and one-third of males reported that their boss would assign them to work tasks based on their gender ( $p < 0.001$ ). Among all males, 28.4% believed their coworkers treated them differently based on their gender, 13.7 % believed that their current employer had ever treated them unfairly when it came to vacations, 16.0 % when it came to working schedule planning .There was no significant difference between males and females in terms of whether they felt their current employer had ever treated them unfairly in terms of providing work equipment or training opportunities; as shown in Table (3a).

**Table 3b: Comparison between males and females regarding work-related gender disparities:**

Characters	Males (No =131) No. (%)	Females (No=183) No. (%)	Total (No =314) No. (%)	p value
<b>Do you feel that your current employer has ever treated you unrightfully in working hours?</b>				
NO	102 (77.9)	166 (90.7)	268 (85.4)	<b>0.001*</b>
Yes	29 (22.1)	17 (9.3)	46 (14.6)	
<b>Have you ever lost a job because of your gender?</b>				
NO	117 (89.3)	158 (86.3)	275 (87.6)	0.431
Yes	14 (10.7)	25 (13.7)	39 (12.4)	
<b>Do you think that you have less work privileges than the other gender?</b>				
NO				<b>&lt;0.001*</b>
Yes	118 (90.1)	131 (71.6)	249 (79.3)	
	13 (9.9)	52 (28.4)	65 (20.7)	
<b>Do you think that there is more job opportunities for the other gender?</b>				
NO	113 (86.3)	32 (17.5)	145 (46.2)	<b>&lt;0.001*</b>
Yes	18 (13.7)	151 (82.5)	169 (53.8)	
<b>Do you think that there is equality in rights and needs for both genders in your work environment?</b>				
NO	41 (31.3)	118 (64.5)	159 (50.6)	<b>&lt;0.001*</b>
Yes	90 (68.7)	65 (35.5)	155 (49.4)	
<b>Do you think that your boss assign you to important work tasks based on your gender?</b>				
NO	90 (68.7)	149 (81.4)	239 (76.1)	<b>0.009*</b>
Yes	41 (31.3)	34 (18.6)	75 (23.9)	
<b>Does your facility adopt a declared gender equality policy?</b>				
NO	114 (87.0)	149 (81.4)	263 (83.8)	0.184
Yes	17 (13.0)	34 (18.6)	51 (16.2)	
<b>Do you prefer your boss is a:</b>				
a- Man	131 (100.0)	132 (72.1)	263 (83.8)	<b>&lt;0.001*</b>
b-Woman	0 (0.0)	51 (27.9)	51 (16.2)	

\* : Statistically significant

About 22% of males believed that their current employer had ever treated them unrightfully when it came to working hours, and 28.4 % of females believed they had fewer work privileges than males (p: 0.001 for any). The majority of females (82.5%) believed that males had more job opportunities, 64.5% did not believe that there was equality in rights and needs for both genders in their workplace, 31.3% of males believed that their boss would assign them to important work tasks based on their gender and 27.9% of females preferred that their boss be a woman . There was no significant difference between males and females in terms , if they had ever been fired because of their gender, or if their facilities had a declared gender equality policy as shown in Table (3b).

## Discussion

Gender disparity has manifested itself in various aspects of the medical field, whether as sexism or the more common phenomenon of “leaky pipeline.” The latter indicates a disproportionately low number of women in positions of leadership in the medical field (Arrizabalaga et al. 2014 and Grant-Kels, 2017) . Among the participants in the present study, the vast majority of men worked in the clinical field, while a sizable proportion of women preferred academia ( Table 2).

The current study showed that females were treated differently by their coworkers, with fewer work privileges than their male colleagues. Most females believed that men had more job opportunities and that there was inequality in the rights and needs of both genders at their workplace ( Table 3a,b). Women face more discrimination attributions than men, as members of disadvantaged groups were more likely to report discrimination than members of advantaged groups. Women were also underrepresented in senior leadership, as previously reported (Inman and Baron, 1996, Operario and Fiske, 2001, Major et al. 2016, Cundiff and Vescio , 2016, Lipari and Park-Lee, 2019).

A previous cohort of 198 faculty members from the United States completed a pre-designed questionnaire. There were significant gender differences in faculty salaries, ranks, tracks, leadership positions, resources, and perceptions of academic climate, according to the data. Almost one-third (32%) of women reported being discriminated against, compared to only 5% of men(Wright et al. 2003). In China, female senior psychiatrist earned significantly less money than their corresponding males (Han et al 2022). The study conducted by Singer et al. 2022, showed that although the majority of pediatricians were women in the top 27 grant-funded department in the United States, men had more likelihood to hold an endowed chair than women.

Gender-related issues exist even among medical students. Gender-based discrimination (GBD) creates a hostile environment during medical school, affecting students’ personal life and academic performance (Faria et al. 2023) . A larger retrospective review of 1,120 theses submitted by graduating medical students at Yale School of Medicine from 2003 to 2015 was conducted, and data on gender,



mentoring, research type, sponsoring department, and other characteristics were collected. Even after controlling for these factors, as well as being underrepresented in medicine status and sponsoring department, women were still less likely to receive the highest honors (OR 0.51; 95 percent CI: 0.27, 0.98). Gender disparities in postgraduate biomedical research success may begin during medical school (King et al. 2018). According to 2019 WHO report on gender equity in the health workforce in 104 countries, women make up 70% of workers in the health and social sectors and are less likely to be in full-time employment than men. In the health workforce, there is an average gender pay gap of around 28%. When occupation and working hours are taken into account, the gender pay gap is 11% (Boniol et al. 2019).

During the pandemic of COVID-19, women workers at health care facilities were more vulnerable to psychological stress with more consumption of tranquilisers and strong analgesics especially those working in the front line ;Utzet et al. 2022 and Hennein et al, 2023 found that younger age, greater social support needs (as having a child who need social care),

lower team cohesion, and greater racial discrimination were significant predictors for gender discrimination among women health care workers during the same period.

The current study, on the other hand, detected gender discrimination against men in the form of more tasks and longer working hours compared to their female counterparts (Table 3b). According to Egyptian labor laws, women are entitled to four paid months of maternity leave and up to six years of family-care leave; men, on the other hand, are not entitled to paternity leave or any other type of vacation other than official or sick leave.

A large cohort study was conducted in China in 2018 to examine gender differences in workplace violence against Obstetrics and Gynecology physicians. They distributed 1,425 questionnaires, and 1,300 physicians (91.2 %) responded. Male physicians experienced the same number of verbal abuse incidents as their female colleagues, but more physical and sexual assaults (5.0 % vs. 1.3 %, adjusted OR 4.8, 95 % CI, 1.8–13.3). Both sexes held similar views on the causes, consequences, and management of workplace violence against physicians (Zhu et al. 2018).

A study recruited 1472 doctors from 103 selected county-level health care facilities in rural western China for a cohort study. Male doctors had significantly higher monthly salaries, longer working hours, more night shifts per month, longer continuous working hours, and long years of service at current facilities, while female doctors had marginally higher hourly wages and longer years of service. Female doctors, on the other hand, demonstrated superior overall job qualities (Boniol et al. 2019).

There was no gender disparity in the provision of work equipment, training opportunities, or job loss due to gender among participants in the present study( Table 3 a,b). Egypt signed the Convention on the Elimination of All Forms of Discrimination Against Women in 1979, and the Egyptian government has attempted to regulate the medical work environment ever since(Cedaw / and Egy/, 2022).

## Conclusion

Even though female health care workers (HCW) believe that males have more job opportunities and that there is inequality in rights and needs for both genders at work, male HCW advocate for more workloads, longer working hours, and vacation restrictions.

## Recommendations

In an attempt to overcome the gender gap, some authors asked colleagues in various global health settings to explore gender in their context, taking the critical first step of starting a conversation from which a theory of change can be implemented(De Silva et al. 2014, Newman et al. 2017). Others emphasized the importance of gender-transformative policies in addressing inequities and eliminating gender-based discrimination in earnings, removing barriers to full-time employment, and supporting access to professional development and leadership roles (Boniol et al. 2019).

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## Conflict of Interest

Authors declared there were no conflicting interests.

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