Assessment of Sexual Misconduct among Egyptian Female Medical Professionals

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KEYWORDS
Egypt,
Sexual misconduct,
Female medical professionals,
Medico-legal implications.

ABSTRACT

Sexual misconduct refers to activities that exploit professional-client relationships in a sexual way, posing significant issues globally, especially among medical practitioners. This study assesses patterns and predictors of sexual misconduct among female medical practitioners in Egypt, emphasizing the medico-legal implications. Descriptive cross-sectional survey included 389 female medical professionals from Egypt. A self-administered electronic questionnaire was used to collect data, which included sociodemographic information, patterns of sexual misconduct, attitudes, and perceptions of the medicolegal implications. Statistical analyses were performed using SPSS version 27, with a significance level of $p < 0.05$. Of 389 responders, 81.2% were physicians, 16.5% were pharmacists, and 2.3% were dentists. Strangers perpetrated 43.8% of instances, followed by coworkers (14.5%). The most reported forms of harassment were unwanted sexual comments (30.1%), and the most prevalent type of attack was grabbing or groping (58.6%). Anxiety about safety (62%) was the most significant psychological consequence. Only 11.6% disclosed incidents. Significant associations were discovered between sexual misconduct and age and location ($p < 0.05$). Sexual misconduct is common among female medical practitioners in Egypt, having serious psychological and professional consequences. Addressing this issue requires more awareness, robust reporting methods, and legal initiatives.

Introduction

Sexual misconduct is defined as any sexual exploitative behavior in a professional-client relationship (Sindhu et al., 2022). It can encompass a variety of activities such as making improper sexual comments, participating in sexual action with vulnerable victims, sexual bullying, and having sexual relationships with crime victims (Sweeting et al., 2021).

The global prevalence of sexual misconduct varies with study and region. According to different studies, sexual assault victimization is widespread, with prevalence rates ranging from 0% to 59.2% for women, 0.3% to 55.5% for men (Dworkin et al., 2021). A global survey of sexual violence prevalence rates from 1990 to 2017 found that sexual violence against males decreased while sexual violence against women increased in countries with low human development index (Borumandnia et al., 2020).

Sexual misconduct is a widespread and prevalent problem in Egypt, with studies indicating shockingly high rates of sexual harassment among women, ranging from 83% to 99% (Abdelmonem and Galan, 2017).

Also, studies have shown that sexual harassment is the most common form of violence against women in the country (Abdel-Fattah et al., 2022). Research

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indicates that sexual harassment rates in Egypt are among the highest in the world, with a significant increase in prevalence following the 2011 revolution (El-Ashmawy, 2017).

Additionally, a study on sexual assault in the Suez Canal area revealed that most cases go unreported to authorities, highlighting the hidden nature of the problem (El-Elemi et al., 2011). Workplace sexual harassment is also a concern, with a positive correlation found between workplace sexual harassment and counterproductive work behaviors among women in Egypt (Saad, 2019).

The healthcare workers are not immune; data shows that female medical workers are routinely subjected to sexual harassment in the workplace. For example, the study conducted in four Khartoum State tertiary hospitals, involved 325 participants, with 51.4% doctors and 81.2% single. Forty percent reported sexual harassment at work, with 45% reporting multiple incidents and 46.4% experiencing loss of desire for work. Female doctors were 1.45 times more likely to be harassed (Kheir et al., 2023).

The psychological impact on victims of sexually harassment is significant, frequently leading to depression and disappointment (Houle et al., 2011).

These findings highlight the critical need for comprehensive initiatives to explore and prevent sexual misconduct in Egypt's healthcare professionals. Current study aimed to assess patterns and predictors of the sexual misconduct among female medical professionals in a silent suffering emphasizing the medico-legal implications.

Subjects and methods

Study design, setting and sample:

A descriptive cross-sectional study was conducted on a convenience sample of Egyptian female medical professionals included physicians, dentists, and pharmacists from both urban and rural areas who exposed to sexual misconduct during their practice. While professional practice outside the country was excluded from study. The sample size was estimated using the following formula (Wang and Ji, 2020):

$$n = \left[\frac{Z_{\alpha/2}}{E}\right]^2 * P(1-P)$$

n= sample size. Zα/2= 1.96 (The critical value that divides the central 95% of the Z distribution from the 5% in the tail). E= Margin of error/Width of confidence interval = 5%. P= Prevalence/proportion in the study group = 36% (WHO, 2018). So, by calculation, the sample size is equal to 389 Egyptian female medical professionals after the addition of 10% drop- out proportion to compensate for incomplete questionnaires that were excluded.

Study tool:

Recruited participants were asked to complete a self-administered online questionnaire. The questionnaire, designed by researchers based on previous studies (Yusra et al., 2017 ; Amole et al., 2021; Abdel-Fattah et al., 2022;), was presented in English. The questionnaire comprised four sections that included sociodemographic data, prevalence and patterns of sexual misconduct, attitudes toward sexual misconduct and perceptions of medicolegal implications.

Attitudes toward sexual misconduct and perceptions of medicolegal implications were assessed using a five-point Likert scale.

For each of the twenty-six statements, respondents were asked to state their level of agreement, from "1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree". Strongly disagree was given a score of 1 and strongly agreed scored 5 for positive response statements. For negative response statements, the score was reversed, so strongly agree was given a score of 1, and strongly disagree was given a score of 5.

Questionnaire validity and reliability:

A panel of experts in the relevant field evaluated the content validity of the questionnaire to determine the comprehensiveness, clarity, applicability, and suitability of the included items regarding the study's objectives. In addition, a pilot testing questionnaire was conducted with twenty participants. According to their feedback, the required modifications were carried out. Cronbach's alpha test was used to measure reliability of each questionnaire section.

Statistical analysis

The data was entered and analyzed using version 27 of the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics were employed to summarize the data. Quantitative data were expressed as mean and standard deviation, whereas qualitative variables were presented as frequency and percentage. Associations were tested using the chi-square test. Statistical significance was defined as a p-value of ($\leq$0.05).

Ethical considerations:

The study protocol complied with the Helsinki Declaration and was approved by the Research Ethics Committee of the Faculty of Medicine, Suez Canal University, Egypt (reference number: #5758). The questionnaire contained an information sheet outlining the research's purpose, benefits, and participant rights, and voluntary completing the questionnaire and submitting it denoted the consent to participation in the study and maintaining confidentiality by keeping the questionnaire anonymous.

Results

The present study included 389 of female medical professional with a mean age of 35.14 ±5.992 years. Three hundred sixteen (81.2%) of the participants were physicians, while 64 (16.5%) were pharmacists, and 9(2.3%) were dentists and all of them were employed. The majority held a Ph.D. (58.1%), followed by a master's degree (23.1%), and a bachelor's degree (18.8%) (Table1).

Table (1): Socio-demographic data of participating sample (n=389)

	n	Frequency
Age groups		
(>20years to ≤ 25 years	36	9.3%
(>25years to ≤ 30 years	54	13.9%
(>30years to ≤ 35 years	81	20.8%
(>35years to ≤ 40 years	173	44.5%
(>40years to ≤ 45 years	45	11.6%
Specialty:		
Physicians	316	81.2%)
Pharmacists	64	16.5%
Dentists	9	2.3%)
Marital status		
Single	54	13.9%
Married	290	74.6%
Divorced	36	9.3%
Widow	9	2.3%
Educational level:		
Bachelor's degree	73	18.8%
Master's degree	90	23.1%
Ph.D.	226	58.1%
Working hours		
0‑6	128	32.9%
6-12	198	50.9%
≥ 12	63	16.2%
Location of practice		
Rural	117	30.1%
Urban	272	69.9%

n: number

Most participants were exposed to sexual misconduct by strangers (43.8%). Coworkers (14.5%), patients (12.9%), and individuals with close relationships (12.9%) also account for a sizable proportion of instances. Bosses or supervisors (6.4%) and friends (9.6%) included smaller but nonetheless significant groupings of perpetrators. Most sexual misconduct episodes occurred once (35.5%), although repeat occurrences (twice (30.7%), ≥3 times (33.8%) were common (Table 2).

Table (2): Perpetrators of sexual misconduct and frequency of incidents

*Perpetrator	Frequency of incidents			Total (n=560) n (%)
	Once n (%)	Twice n (%)	≥3 n (%)	
Someone with a close relationship	9(1.6%)	27(4.8%)	36(6.4%)	72(12.9%)
Co-worker	36(6.4%)	36(6.4%)	9(1.6%)	81(14.5%)
Boss or Supervisor	27(4.8%)	9(1.6%)	0(0.0%)	36(6.4%)
Friend	36(6.4%)	18(3.2%)	0(0.0%)	54(9.6%)
Patient	54 (9.6%)	9 (1.6%)	9 (1.6%)	72 (12.9%)
Stranger	37(6.6%)	73 (13.0%)	135 (24.1%)	245 (43.8%)

*More than one answer is allowed, n: number

The most reported pattern of sexual harassment was unwanted sexual talk or comments (30.1%), with many individuals encountering it multiple times (twice 9.2%, three or more10.5%). Inappropriate touching (29.1%) was the second most common pattern, happening only once (17.3%) but being reported as recurrent in certain situations (twice 6.6%, three or more times 5.2%) (Table 3).

Table (3): Pattern of sexual misconduct (harassment) among participating sample and frequency of incidents

*Pattern of Sexual misconduct (harassment)	Frequency of incidents			Total (n=687) n (%)
	Once n (%)	Twice n (%)	≥3 n (%)	
- **Jokes with sexual content**	72(10.5%)	18(2.6%)	36(5.2%)	126(18.3%)
- **Displaying sexualized pictures**	55 (8.0%)	9 (1.3%)	18(2.6%)	82(11.9%)
- **Unwanted/sexual talk or comments**	72(10.5%)	63(9.2%)	72(10.5%)	207(30.1%)
- **Inappropriate touching**	119(17.3%	45(6.6%)	36(5.2%)	200(29.1%)
- **Ask for a date despite previous refusal**	27(3.9%)	9(1.3%)	9(1.3%)	45(6.6%)
- **Offered career opportunities for sex**	9(1.3%)	0(0.0%)	0(0.0%)	9(1.3%)
- **Threatened for refusing sexual favor**	18(2.6%)	0(0.0%)	0(0.0%)	18(2.6%)

*More than one answer is allowed, n: number

Two hundred forty-five female medical professionals (63%) reported having previously exposure to sexual assault, whereas the remaining 144 (37%) were not. Grabbing, groping, or rubbing against in a sexual manner was the most common type of sexual assault, accounting for 58.6% of incidents (Table 4).

Table (4): Pattern of sexual misconduct (assault) among participating sample and frequency of incidents

* Pattern of Sexual assault	Frequency of incidents			Total (n=263) n (%)
	Once n (%)	Twice n (%)	≥3 n (%)	
- **Kissing**	18(6.8%)	9(3.4%)	0(0.0%)	27(10.3%)
- **Forced contact or touching of genitals/breasts**	64(24.3%)	9(3.4%)	9(3.4%)	82(31.2%)
- **Grabbing, groping, or rubbing against you in a sexual way, even if these are over your clothes**	109(41.4%)	18(6.8%)	27(10.3%)	154(58.6%)

*More than one answer is allowed, n: number

In this study, 77% of participants were unable to accurately identify the behavioral patterns exhibited by perpetrators of sexual misconduct. Examples of such behavior include initiating a sexual relationship despite explicit rejection or failing to obtain voluntary, continuous, and active consent in any other manner (Table 5).

Table (5): Behavior of perpetrator toward participating sample and frequency of incidents

*Behavior	Frequency of incidents			Total (n=398) n (%)
	Once n (%)	Twice n (%)	≥3 n (%)	
- **Started a sexual relationship even when you said no**	9(2.3%)	0(0.0%)	0(0.0%)	9(2.3%)
- **Failed to get your voluntary, continuous, and active consent in any other way.**	54(13.6%)	27(6.8%)	0(0.0%)	81(20.4%)
- **None of the above.**	290(72.9%)	0(0.0%)	18(4.5%)	308(77.4%)

*More than one answer is allowed, n: number

There were 182 (%) participants who experienced abuse by their partner (husband), and 207 (%) participants who did not experience any abuse. Verbal abuse was the most prevalent pattern of husband abuse, making up 44.9% of all incidents. This sort of abuse frequently develops into a persistent pattern, with 25.7% occurring three or more times. Physical abuse (25.7%) and coerced sexual relations (25.7%) were less common than verbal abuse. Sexual activity to escape abuse (3.7%) was the least common kind (Table 6).

Table (6): Pattern of abuse toward participating sample by husband and frequency

*Pattern of abuse by husband	Frequency of incidents			Total (n=245) n (%)
	Once n (%)	Twice n (%)	≥3 n (%)	
- **Verbal abuse (vulgar names, Disrespect)**	29(11.8%)	18(7.3%)	63(25.7%)	110(44.9%)
- **Physical abuse**	36(14.7%)	0(0.0%)	27(11.0%)	63(25.7%)
- **A history of being coerced into having sexual relations with him against your will**	36(14.7%)	9(3.7%)	18(7.3%)	63(25.7%)
- **A history of engaging in sexual activity just to evade physical and verbal abuse**	0(0.0%)	0(0.0%)	9(3.7%)	9(3.7%)

*More than one answer is allowed, n: number

Only 11.6% (45) of the participants disclosed sexual misconduct incidents, while 88.4% (344) of them did not disclose the incidents (Figure 1). Female medical professionals may avoid disclosure of sexual misconduct incidents due to emotional and psychological barriers, including feelings of being ashamed or burdened (25.3%). Additionally, 16.5% of participants stated that they "didn't know who to call or where to go". Of those who responded, 14.5% were concerned about whether "anyone would take them seriously," 14.5% disagreed that "something would be done", 16.5% said the misconduct was not substantial enough to report and 6.8% anticipated "negative societal effects," while 5.8% expressed worries about "fear of the person getting into trouble." (Figure 2).

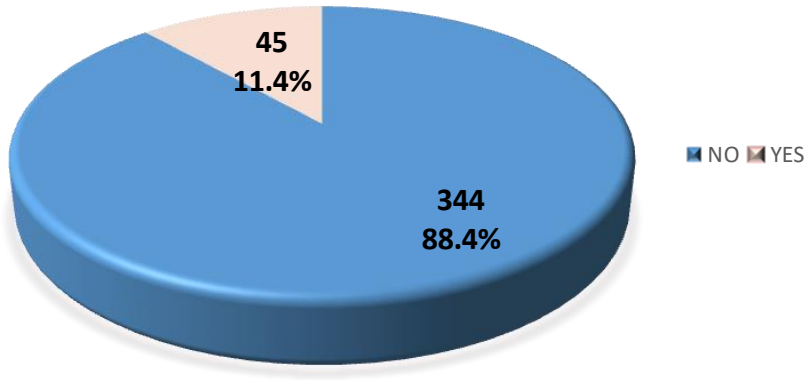

Fig. (1): Percentage of female medical professionals that disclose sexual misconduct (n=389)

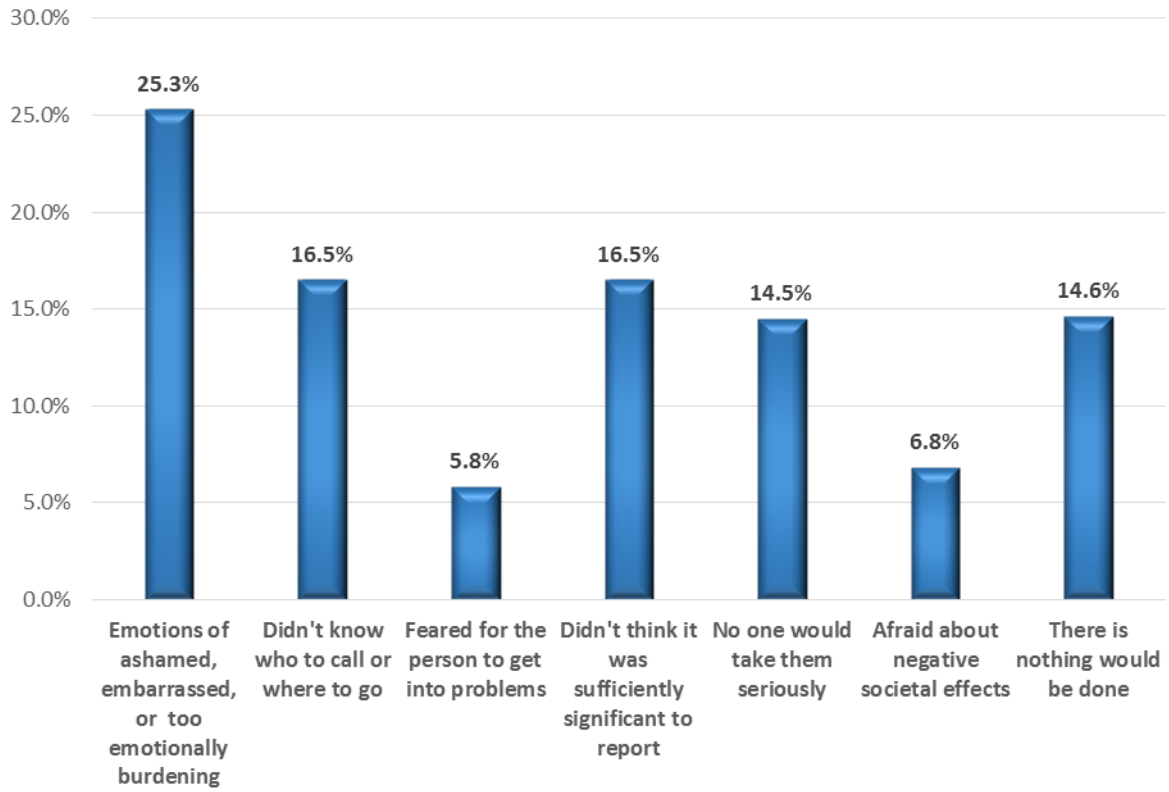

Fig. (2): Causes of non-disclosure of sexual misconduct by the participating study sample

More than 62% of female medical professionals agreed or strongly agreed that anxiety or fear about safety was the most significant impact of sexual misconduct. Their inability to focus on work came next (37.3%). The statements "Abuse of drugs or alcohol, Suicidal thoughts, plans, and attempts" were strongly disagreed with by over half of the participants (4.6%) as an impact of sexual misconduct (Table 7).

Table (7): Effects of incidents of sexual misconduct experienced by female medical professionals (n=389)

Impact	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
- **Inability to focus on work**	63(16.2%)	81(20.8%)	100(25.7%)	64(16.5%)	81(20.8%)
- **Anxiety or worrying about one's safety**	73(18.8%)	18(4.6%)	54(13.9%)	127(32.6%)	117(30.1%)
- **Emotions of powerlessness and despair**	82(21.1%)	9(2.3%)	135(34.7%)	91(23.4%)	72(18.5%)
- **Fears or difficulties falling asleep**	73(18.8%)	99(25.4%)	108(27.8%)	73(18.8%)	36(9.3%)
- **Stomach pains or headaches or eating disorders**	137(35.2%)	81(20.8%)	72(18.5%)	54(13.9%)	45(11.6%)
- **Abuse of drugs or alcohol**	208(53.5%)	72(18.5%)	46(11.8%)	45(11.6%)	18(4.6%)
- **Suicidal thoughts to take one's own life**	209(53.7%)	90(23.1%)	36(9.3%)	36(9.3%)	18(4.6%)
- **Suicidal plans to take one's own life**	200(51.4%)	90(23.1%)	36(9.3%)	36(9.3%)	27(6.9%)
- **Suicide attempts to take one's own life**	218(56.0%)	90(23.1%)	18(4.6%)	45(11.6%)	18(4.6%)
- **None of the above**	208(53.5%)	63(16.2%)	46(11.8%)	45(11.6%)	27(6.9%)

n: number

Female medical professionals most strongly agreed with the statements that "the government must take action to stop sexual misconduct through enactment of new laws and heightened punishments" (65% and 62.7%, respectively). Additionally, the majority (53.5% and 51.2%, respectively) strongly agreed that they needed a secure and encouraging work environment and psychological assistance. Among those who participated in the study, 44.2% strongly agreed with the statement that "raising awareness in our community can decrease sexual misconduct". Opinions differ on whether those who engage in sexual misconduct need help; just 28% strongly agree and 23.1% strongly disagree. The statement "Beliefs that man have the freedom to engage in sexual misconduct with women" was a strong disagreement for 48.6% of participants (Table 8).

Table (8): Perceptions of participating sample exposed to sexual misconduct (n=389)

Perception issue	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
- **Beliefs that men have the freedom to engage in sexual misconduct with women**	189(48.6%)	45(11.6%)	83(21.3%)	36(9.3%)	36(9.3%)
- **A history of child sexual abuse increases the likelihood of sexual misconduct**	64(16.5%)	37(9.5%)	72(18.5%)	153(39.3%)	63(16.2%)
- **Aggressive households give birth to violent individuals**	46(11.8%)	27(6.9%)	54(13.9%)	180(46.3%)	82(21.1%)
- **Reporting a sexual misconduct occurrence to an authority would help female victim filing the report**	19(4.9%)	36(9.3%)	73(18.8%)	153(39.3%)	108(27.8%)
- **Report sexual misconduct to an authority who will investigate it fairly and take appropriate action against the perpetrator**	28(7.4%)	36(9.5%)	45(11.8%)	108(28.4%)	163(42.9%)
- **Sexual misconduct can be decreased by increasing awareness in our community**	45(11.6%)	18(4.6%)	64(16.5%)	90(23.1%)	172(44.2%)
- **Perpetrators of sexual misconduct require assistance**	90(23.1%)	18(4.6%)	73(18.8%)	99(25.4%)	109(28.0%)
- **Female victim of sexual misconduct requires psychological assistance**	54(13.9%)	9(2.3%)	37(9.5%)	90(23.1%)	199(51.2%)
- **Female victim of sexual misconduct requires a secure and encouraging work environment**	54(13.9%)	18(4.6%)	46(11.8%)	63(16.2%)	208(53.5%)
- **Government must take action to stop sexual misconduct as enactment of new laws**	54(13.9%)	36(9.3%)	19(4.9%)	27(6.9%)	253(65.0%)
- **Government must take action to stop sexual misconduct Heightened punishments**	63(16.2%)	9(2.3%)	28(7.2%)	45(11.6%)	244(62.7%)

n: number

Sexual misconduct (sexual harassment and assault) shows statistically significant differences between age groups (p-values <0.000). The 35-40 age group has continuously had the greatest rate of sexual misconduct (44.5%) among participants (Table 9).

Table (9): Pattern of sexual misconduct (harassment and assault) of participating sample among different age groups of participating samples (n=389)

	Age group					p-value
	>20years to ≤ 25 years n (%)	>25years to ≤ 30 years n (%)	>30years to ≤ 35 years n (%)	>35years to ≤ 40 years n (%)	>40years to ≤ 45 years n (%)	
Pattern of Sexual harassment						
- **Jokes with sexual content**	0(0.0%)	36(9.3%)	18(4.6%)	27(6.9%)	0(0.0%)	
- **Displaying sexualized pictures**	9(2.3%)	9(2.3%)	0(0.0%)	9(2.3%)	0(0.0%)	
- **Unwanted/sexual talk or comments**	9(2.3%)	0(0.0%)	0(0.0%)	54(13.9%)	27(6.9%)	
- **Inappropriate touching**	9(2.3%)	0(0.0%)	54(13.9%)	74(19.0%)	9(2.3%)	**0.000***
- **Ask for a date despite previous refusal**	9(2.3%)	0(0.0%)	9(2.3%)	9(2.3%)	0(0.0%)	
- **Threatened for refusing sexual favor**	0(0.0%)	9(2.3%)	0(0.0%)	0(0.0%)	9(2.3%)	
Pattern of Sexual assault						
- **Not exposed**	18(4.6%)	18(4.6%)	9(2.3%)	72(18.5%)	27(6.9%)	
- **Kissing**	0(0.0%)	0(0.0%)	9(2.3%)	9(2.3%)	0(0.0%)	
- **Forced contact or touching of genitals/breasts**	9(2.3%)	9(2.3%)	18(4.6%)	37(9.5%)	0(0.0%)	**0.000***
- **Grabbing, groping, or rubbing against you in a sexual way, even if these are over your clothes**	9(2.3%)	27(6.9%)	45(11.6%)	55(14.1%)	18(4.6%)	

n: number, Chi square test, *p is significant at <0.05.

The location of practice has a significant effect on the pattern of sexual harassment and assault (p <0.001, 0.000, respectively). Urban practitioners are more likely to be harassed and assaulted, notably for inappropriate touching (30.6%), unwanted sexual comments (16.2%), and grabbing, groping, or rubbing someone in a sexual way, even if this is done over clothes (25.7%). Location of practice has a significant effect on the history of abuse by the husband (p <0.001), whereas physical abuse is more prevalent in rural locations (Table 10).

Table (10): Patterns of sexual misconduct (harassment and assault) of participating samples and location of their practices (n=389)

	Location of practices		p-value
	Rural n (%)	Urban n (%)	
Pattern of Sexual harassment			
- **Jokes with sexual content**	36(9.3%)	45(11.6%)	
- **Displaying sexualized pictures**	9(2.3%)	18(4.6%)	
- **Unwanted/sexual talk or comments**	27(6.9%)	63(16.2%)	**0.001***
- **Inappropriate touching**	27(6.9%)	119(30.6%)	
- **Ask for a date despite previous refusal**	9(2.3%)	18(4.6%)	
- **Threatened for refusing sexual favor**	9(2.3%)	9(2.3%)	
Pattern of Sexual assault			
- **Not exposed**	27(6.9%)	117(30.1%)	
- **Kissing**	0(0.0%)	18(4.6%)	
- **Forced contact or touching of genitals/breasts**	36(9.3%)	37(9.5%)	**0.000***
- **Grabbing, groping, or rubbing against you in a sexual way, even if these are over your clothes**	54(13.9%)	100(25.7%)	
History of abuse by an intimate partner (husband)			
- **Not exposed**	63(16.2%)	144(37.0%)	
- **Verbal abuse (vulgar names, Disrespect)**	18(4.6%)	83(21.3%)	
- **Physical abuse**	27(6.9%)	18(4.6%)	**0.000***
- **A history of being coerced into having sexual relations with him against your will**	9(2.3%)	27(6.9%)	

n: number, Chi square test, *p is significant at <0.05**.**

Pattern of misconduct (sexual harassment) has a significant difference depending on the relationship with the perpetrator (p-values =0.000). Inappropriate touching was the most frequent pattern of harassment reported from strangers (42.8%). Unwanted/sexual talk or comments from someone had a close relationship account (29.4%) (Table 11).

Table (11): Perpetrators of sexual misconduct (harassment) and its pattern (n=389)

Perpetrators	Pattern of sexual misconduct(harassment)						P value
	Jokes with sexual content n (%)	Displaying sexualized pictures n (%)	Unwanted/ sexual talk or comments n (%)	In-appropriate touching n (%)	Ask for a date despite previous refusal n (%)	Threatened for refusing sexual favor n (%)	
- Someone I had a close relationship	0 0.0%	0 0.0%	45 29.4%	9 5.5%	0 0.0%	0 0.0%	0.000*
- Co-worker	0 0.0%	0 0.0%	36 23.5%	9 5.5%	0 0.0%	0 0.0%	
- Boss or Supervisor	9 11.1%	0 0.0%	9 5.9%	0 0.0%	0 0.0%	0 0.0%	
- Friend	0 0.0%	0 0.0%	18 11.8%	27 16.5%	9 33.3%	0 0.0%	
- Patient	9 14.3%	18 28.6%	9 14.3%	18 28.6%	9 14.3%	0 0.0%	
- Stranger	63 26.7%	9 3.8%	36 15.3%	101 42.8%	9 3.8%	18 7.6%	

n: number, Chi square test, *p is significant at <0.05

Anxiety or worrying about one's safety has a significant difference depending on presence of disclosure of incidents or not (p-values =0.000). The majority of those who did not disclose the incident of sexual misconduct reported increased anxiety or concern about their safety, as seen by the high numbers for "Agree" (28.0%) and "Strongly Agree" (30.1%) (Table 12).

Table (12): Report on sexual misconduct incidence & impact of sexual misconduct (Anxiety or worrying about one's safety) (n=389)

Report on sexual misconduct incidence	Anxiety or worrying about one's safety					P value
	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)	
Yes	18(4.6%)	0(0.0%)	9(2.3%)	18(4.6%)	0(0.0%)	0.000*
No	55(14.1%)	18(4.6%)	45(11.6%)	109(28.0%)	117(30.1%)	

n: number, Chi square test, *p is significant at <0.05

Discussion

Different organizations and institutions may have varying definitions of sexual misconduct. Any action that takes in a sexual manner is considered sexual misconduct (Sindhu et al., 2022). Sexual misconduct among medical staff is a significant problem that needs to be addressed. Current study aimed to assess patterns and predictors of the sexual misconduct among female medical professionals.

A total of 389 female medical professionals participated in this study. The majority was physicians (81.2%), followed by pharmacists (16.5%), and only 2.3% were dentists.

Strangers (43.8% of perpetrators) were the most frequent perpetrators of sexual misconduct. This suggests that most sexual misconduct incidents involve individuals without a prior relationship with the victim, while Co-workers (14.5%), patients (12.9%), and those with a close relationship (12.9%) collectively account for a substantial proportion of cases. These categories highlight the workplace and personal relationships as notable contexts for sexual misconduct. On the other hand, bosses, or supervisors (6.4%) and friends (9.6%) represent smaller, but still significant, subsets of perpetrators. However, cross sectional study conducted is Saudi Arabia, observed that most of the perpetrators were patients/clients (29.5%) and staff member (27.6%) (AlHassan et al., 2023). The same found by other researchers that patients or their family members have been identified as perpetrators, particularly in cases of harassment (Bernardes et al., 2021). However, another study reveal that female physicians frequently encounter unwanted sexual remarks, inappropriate touching, and suggestive behaviors from colleagues and superiors (Fitzgerald and Cortina, 2018).

Regarding frequency of sexual misconduct, this study found that most incidents occur only once (35.5%), but repeat occurrences (twice= 30.7%, ≥3 times= 33.8%) are quite common, indicating a tendency for ongoing patterns of behavior in a substantial proportion of cases. Repeating incidents are particularly high for strangers, suggesting that strangers may engage in serial misconduct more frequently than other groups.

The total number of cases of sexual misconduct exceeds the number of participants (389), indicating that some individuals experienced misconduct by perpetrators from multiple categories. This suggests a complex interplay of victim-perpetrator relationships, with some individuals facing repeated or varied forms of misconduct.

Unwanted sexual talk or comments (30.1%) was the most frequently reported form of sexual harassment, with a substantial number of individuals about (19%) experiencing it repeatedly. Inappropriate touching was the second most common form, often occurring only once (17.3%) but still reported as recurring in some cases. Similarly, Fitzgerald and Cortina (2018) highlight that: Unwanted sexual comments, jokes, or suggestive remarks are commonly reported by female (Fitzgerald and Cortina, 2018). However, McDonald et al. (2015) reported that 30% of female nurses and physicians experienced inappropriate touching from colleagues or patients. with repeated incidents occurring in about 10% of cases (McDonald et al., 2015).

Nearly one-quarter of the incidents were chronic (three or more times (24.9%), indicating a pattern of sustained harassment,

especially for verbal harassment and jokes with sexual content. The total number of responses (687) exceeds the sample size studied due to individuals experiencing multiple forms of harassment. Also, a meta-analysis by Johnson and Smith (2021) found that 25% of female HCPs experienced chronic harassment (three or more incidents), particularly in the form of verbal or non-verbal misconduct (Johnson and Smith, 2021).

Regarding sexual assault, the number of cases exposed to sexual assault is 245 (one or multiple forms of sexual assault). Most incidents occur once (72.6%). Grabbing, groping, or rubbing against in a sexual way is the most prevalent form of sexual assault, reported by 58.6% of cases. Recurrence is also highest for this type, with 10.3% experiencing it three or more times. This highlights a pattern of physical invasion often experienced in repeated settings, such as public spaces or workplaces, also a study by Pompeii et al. (2015) found that over 30% of female healthcare workers reported experiencing sexual assault during their careers (Pompeii et al., 2015).

Most participants (77%) couldn’t determine types of behaviors of perpetrators during sexual misconduct, indicating nuanced or unlisted offender behaviors that require further inquiry to characterize and address.

In the current study, 88.4% of participants did not disclose the misconduct. Also, a survey in 2013 found that only 10-20% of such incidents are formally reported (Pompeii et al., 2015). Another study in 2018 show that, reporting rates are particularly low in hierarchical systems where perpetrators hold positions of authority (Riley et al., 2018). Additionally, study in India show that female health workers have many reluctant to report incidents due to fear of job loss or stigma (Chaudhuri, 2007).

In the current study, 25.3% of participants often avoid reporting misconduct due to emotional and psychological barriers, such as feeling ashamed or burdened, although one study in 2014 shows that trauma and fear of reliving the incident can deter from recounting their experiences in a formal setting (Lanctôt and Guay, 2014). Additionally, in the current study 16.5% of participants indicated they "didn't know who to call or where to go". Likewise, another study found that many professionals are unaware of reporting procedures or do not trust the existing systems to handle complaints effectively (McDonald et al., 2015). In the current study, 14.5% doubted "anyone would take them seriously", and 14.6% didn’t believe "something would be carried out". While 16.5% in the current study felt the misconduct was not significant enough to report. 6.8% feared "negative societal effects", while 5.8% were concerned about “fear for the person to get into problems. Spector et al. (2014) found that they fear professional consequences such as job loss, demotion, or damage to their reputation if they report incidents (Spector et al., 2014). However, (Jafree, 2017) indicated that victims may fear being blamed for the incident or stigmatized by their community, deterring them from seeking formal recourse (Jafree, 2017).

The results of this study reflect a wide range of psychological, emotional, physical, and behavioral impacts. Psychological and emotional effects are higher. Anxiety or worrying about safety was the most significant effect, with over 62% expressing agreement or strong agreement. This anxiety can cause persistent stress, difficulty trusting others, and lack of ability to sense safety within work environments. A systematic review by Fnais et al. (2014) found that repeated exposure to such behaviors can lead to psychological distress, reduced job

performance, and early career attrition (Fnais et al., 2014). One more cross section study found that, common psychological reactions include depression, anger, and phobia, particularly linked to verbal harassment (Nazim and Nazim, 2022).

Sleep disturbances and somatic symptoms (stomach pains, headaches, and eating disorders) were evident in the current study as coping mechanism or evidence of ongoing psychological distress. Despite substance abuse is less common in present study, it should be evaluated because it can have long-term consequences for some people. Although there are fewer cases of suicidal thoughts, plans, and attempts reported, this issue deserves urgent consideration, as suicidal ideation may advance without adequate intervention.

In the current study, 62.7% and 65% of medical professionals strongly support systemic, legal-level improvements through heightened punishments and enactment of new laws. Medical professionals, frequently working under institutional structure, may feel limited in their abilities of influencing change and seek to governments for strong, enforced responses. The majority (51.2% and 53.5%) strongly think that victims of sexual misconduct require both emotional and professional support. This demonstrates an understanding of the wide-ranging effects of sexual misconduct, such as mental health and safety in the workplace issues. While 44.2% strongly agree that "Sexual misconduct can be decreased by increasing awareness in our community, indicating that, while respondents appreciate education and prevention efforts, they perceive these approaches as supplementary rather than primary. There was moderated agreement that reporting a sexual misconduct occurrence to an authority would help the female victim filing, also they believe that authority would investigate fairly and take appropriate action.

In the present study, opinions fluctuate about the need for help for perpetrators of sexual misconduct, with 23.1% strongly disagreeing and only 28% strongly agreeing. This difference implies an overlap between punishment and rehabilitation techniques. Medical professionals can find it difficult to balance their moral need to provide assistance (even for perpetrators) with the requirement for justice and accountability for victims. Regarding impact of upbringing: "Aggressive households give birth to violent individuals" and "a history of child sexual abuse increases the likelihood of sexual misconduct" show differing opinions on causation of sexual misconduct. While many people agree with these statements (39.3% and 46.3%, respectively), others are neutral or disagree, indicating a variety of cultural and individual perspectives concerning the causes of sexual misconduct. Beliefs that men have the freedom to engage in sexual misconduct with women had most disagreement (48.6% strongly disagree). This implies a strong rejection of the idea that cultural standards naturally empower male perpetrators. As medical professionals, this may also reflect their alignment with ethical codes of conduct and professionalism.

The 35–40 age group consistently shows the highest prevalence of sexual misconduct (44.5%), while McDonald et al. (2015) suggested that female healthcare workers in their 20s and 30s are more vulnerable due to their lower positions in the workplace hierarchy, making them targets for misconduct by higher-ranking individuals (McDonald et al., 2015).

The location significantly impacts the pattern of sexual harassment and assault ($p = 0.001$, 0.000 respectively). Current study found urban practitioners face higher rates of

harassment and assault, particularly inappropriate touching (30.6%), unwanted sexual comments (16.2%) and grabbing, groping, or rubbing against one in a sexual way, even if these are over clothes (25.7%). Urban practitioners are more likely to report verbal abuse and coerced sexual relations from husbands, while physical abuse is more common in rural areas. According to McDonald et al. (2015), the fast-paced environment and larger workforce can create conditions where misconduct is more likely to occur but also more likely to be reported due to better awareness and access to support systems (McDonald et al., 2015). Also, Jafree (2017) noted that in rural areas, close-knit community dynamics and fear of social repercussions often discourage female healthcare professionals from reporting incidents. Additionally, the lack of anonymity in smaller communities can exacerbate the fear of retaliation (Jafree, 2017).

In the current study, strangers were the most frequent perpetrators of inappropriate touching (42.8%). Research on public harassment, like Kearl (2018), reveal that the strangers are commonly responsible for physical harassment, including unwanted touching, which is consistent with the high prevalence identified in the current study (Kearl, 2018). Furthermore, in the current study, patients were prominent perpetrators in healthcare environments, participating in a variety of harassment patterns such as showing sexualized images (28.6%) and unwanted touching (28.6%). Supervisors and coworkers were less likely to be perpetrators of sexual harassment. Fnais et al. (2014) demonstrated that healthcare personnel frequently face harassment from patients, notably unwanted touching and verbal harassment, which is consistent with the findings of the current study (Fnais et al., 2014). While a McDonald (2012) study on workplace harassment observed that coworkers and supervisors were the top perpetrators in professional settings, especially for verbal harassment and inappropriate comments (McDonald, 2012).

Non-disclosed individuals in the current study reported higher levels of anxiety, with 30.1% strongly agreeing and 28.0% agreeing that they were concerned about their safety. Cortina and Magley (2003) revealed that persons who reported harassment frequently received relief from organizational support or corrective actions (Cortina and Magley, 2003). Bondestam and Lundqvist's (2020) study on the impact of sexual harassment found that those who do not disclose events frequently have chronic anxiety and safety concerns, which is similar with the results reported in current study (Bondestam and Lundqvist, 2020).

Conclusion

This study focuses on a challenging and sensitive area within our community in Egypt which is the sexual misconduct among female medical professionals. The findings highlight the stigma and psychological, professional, and societal consequences that still surround female medical professionals in Egypt because of this incident.

Recommendations:

- Implement effective strategies to address misconduct, especially in the healthcare sector.
- Establish reliable reporting systems and clear policies in healthcare organizations to create a secure and professional workplace for female medical workers.
- Promote awareness for both professionals and the general population.

- Toughen legal punishments for perpetrators.
- Providing psychological assistance services to victims of sexual misconduct.

Limitation of study:

We have faced major obstacles to participation, even though solving this issue is vitally important. Numerous medical professionals like pharmacists and dentists have indicated that they are reluctant to participate in this study, which has made it more difficult for them to participate in our study. These challenges have led to a limited sample size and may affect the generalizability of the findings.

Conflicts of interest:

The authors declare no conflicts of interest.

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تقييم سوء السلوك الجنسي بين المهن الطبية النسائية المصرية

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يمكن تعريف سوء السلوك الجنسي بأنه أي سلوك يستغل العلاقة المهنية مع العميل بطريقة جنسية. ويمكن أن تشمل مجموعة من السلوكيات مثل التعليقات الجنسية غير اللائقة، والنشاط الجنسي مع الضحايا المستضعفين، والتنمر الجنسي، والانخراط في علاقات جنسية مع ضحايا الجريمة. ويعد سوء السلوك الجنسي مشكلة منتشرة في مصر وقد أظهرت الدراسات أن التحرش الجنسي هو أكثر أشكال العنف شيوعًا ضد المرأة في البلاد كما يعد سوء السلوك الجنسي بين الطاقم الطبي مشكلة كبيرة تحتاج إلى معالجة. تقيّم هذه الدراسة أنماط وتنبؤات السلوك الجنسي غير اللائق بين الممارسات الطبيات في مصر، مع التركيز على الآثار المترتبة من الوجهه الطبية الشرعية. تم اجراء البحث على 389 طبيبة بشرية، صيدلانية، وطبيبة أسنان من مناطق جغرافية مختلفة من مصر تعرضت لسوء السلوك الجنسي أثناء ممارستها لمهنتها داخل مصرمن خلال استبيان عبر الإنترنت تم إعداده في الأصل من قبل الباحثين بناءً على الاستبيانات المستخدمة في الدراسات السابقة، والذي شمل المعلومات الاجتماعية والديموغرافية، وأنماط السلوك الجنسي غير اللائق، والمواقف، والتصورات حول الآثار القانونية الطبية لسوء السلوك الجنسى. من بين 389 مستجيبًا، كان 81.2% منهم أطباء، و16.5% صيادلة، و2.3% أطباء أسنان. ارتكب الغرباء 43.8% من الحالات، تلاهم الزملاء (14.5%).ووجد ان أكثر أشكال التحرش الجنسى الذى تعرضت لهن كانت التعليقات الجنسية غير المرغوب فيها (30.1%)، وكان أكثر أنواع الاعتداء الجنسى انتشارًا هو الإمساك أو اللمس (58.6%). ووجد فى هذه الدراسة ان القلق بشأن السلامة (62%) كان أكثر العواقب النفسية أهمية. وبينت الدراسة ان 11.6 % فقط أفصحوا عن سوء السلوك الجنسى الذى تعرضن له. السلوك الجنسي غير اللائق شائع بين الممارسات الطبيات في مصر، وله عواقب نفسية ومهنية خطيرة. معالجة هذه القضية تتطلب المزيد من الوعي، وطرق الإبلاغ الفعالة، والمبادرات القانونية.