

Prevalence of Workplace Abuse and Sexual Harassment among Female Faculty and Staff

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Abstract: Prevalence of Workplace Abuse and Sexual Harassment among Female Faculty and Staff: Jaimee MARSH, et al. Department of Epidemiology, Multidisciplinary International Research Training Program, University of Washington School of Public Health, USA—Objectives: To determine the one year prevalence of workplace abuse and sexual harassment and to determine the extent of their associations with symptoms of depression. **Methods:** A total of 387 female faculty and staff from colleges in Awassa, Ethiopia completed a self-administered questionnaire which collected information about relationships, mood and feelings, thoughts and satisfaction concerning the workplace, and experiences with sexual harassment. Symptoms of depression were evaluated using the Patient Health Questionnaire (PHQ-9). Logistic regression procedures were employed to calculate odds ratios (OR) and 95% confidence intervals (CI). **Results:** The 12 mo prevalence of either workplace abuse or sexual harassment was 86.3%; with 39.5% reporting workplace abuse only, 4.1% of them reporting sexual harassment only, and 42.6% reporting experiences of both sexual harassment and workplace abuse. Overall, the mean depression score for this cohort was 3.7 (standard deviation 4.2, range 0–19), and 9.3% of the cohort were identified as having moderate or moderately severe depression. The proportion of participants with depression were statistically significantly elevated in relation to reported experience of workplace abuse and sexual harassment ($p=0.001$). Compared with women reporting no

experience with workplace abuse or sexual harassment, those who reported experiencing both workplace abuse and sexual harassment had an 8.00 fold increased risk of depression (OR=8.00, 95% CI:1.05–60.85). Inferences from this analysis are limited by our relatively small sample size as reflected by the wide 95% CI. **Conclusions:** Workplace abuse and sexual harassment are highly prevalent, and are positively correlated with symptoms of depression among college female faculty and staff in Awassa, Ethiopia. Future policies should include a combination of education, health, and public policy initiatives that clearly outline the problem and consequences of workplace abuse and sexual harassment in educational settings.

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Sexual harassment and workplace abuse have both been recognized as human rights as well as public health issues by the World Health Organization (WHO)^{1,2}. As women gain more opportunities for employment in occupations and positions where they are traditionally underrepresented, their exposure to sexual harassment and abuse is heightened^{3–6}. Studies concur that experiences of sexual harassment in the workplace are associated with adverse physical and mental health outcomes, such as distress, low self-esteem, substance abuse, and poorer overall health^{4,6}. Sexual harassment is understood as a collection of verbal and physical actions, including intimidation, bribery, and threats of a sexual nature^{6,7}. Unwanted sexual advances may be as subtle as innuendo and patronization or as overt as blatant sexual comments and advances⁵. Workplace abuse, which is typically not considered as a female-specific experience, encompasses five categories of abuse including verbal aggression, disrespectful behavior, isolation/exclusion, threats/bribes,

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and physical aggression⁶).

Investigators consider multiple socio-demographic characteristics such as gender, age, race, educational attainment, position within the workplace, marital status, and sexual orientation to determine the risk of experiencing sexual harassment and/or workplace abuse. These social identities factor into the interpersonal interactions that occur at the job site given that each woman perceives harassment and abuse differently within a unique social and structural context⁸). In addition, studies attempt to measure the effects of sexual harassment and workplace abuse using a combination of concrete, observable variables such as the number of publications produced by faculty members, as well as subjective self-reports of satisfaction in the work environment^{4,5}).

A recent study assessing the prevalence of sexual harassment and workplace abuse among a racially and economically diverse population revealed that approximately 25% of the study population reported experiencing at least one of five types of sexual harassment, and 52% reported experiencing at least one of eight forms of workplace abuse in the previous year⁸). Studies have also shown that women perceive more harassment, discrimination, and negative health and social outcomes based upon their gender than men⁴⁻⁶). This is especially true for women of color and women with higher rank and specializations that challenge traditional gender roles⁶). According to a survey of United States (US) medical school faculty, female faculty are over 2.5 times more likely than male faculty to perceive discrimination on the basis of gender⁵).

In comparison to the amount of existing research about experiences of sexual harassment among students and workplace abuse in other occupational settings, previous research assessing the prevalence of workplace abuse and sexual harassment among female faculty and staff in academic settings is relatively limited. Additionally, few studies connect experiences of sexual harassment and workplace abuse with mental health effects^{5, 9}). Furthermore most studies that evaluated workplace abuse and sexual harassment have primarily been focused in North American and European population. Few studies have examined the prevalence of sexual harassment and workplace abuse in developing nations¹⁰⁻¹²). To address these gaps in knowledge, this study was conducted among female faculty and staff in Awassa, Ethiopia, for the purpose of assessing the one-year prevalence of workplace abuse and sexual harassment. This study also seeks to determine the extent to which exposures to workplace abuse and sexual harassment are associated with symptoms of depression.

Methods

Sampling procedure and study population

This cross-sectional study was conducted in Awassa,

Ethiopia, 275 km south of the country's capital, Addis Ababa, between May 23 and June 3, 2007. Eight private and public colleges and one university (hereinafter referred to as "colleges") were selected for participation in the survey. All female academic and administrative staff members present at work during the study period were invited to participate in the survey.

Data collection and management

A self-administered questionnaire was used to collect information concerning social characteristics, demographic characteristics, substance use, thoughts and satisfaction concerning the workplace, experiences with sexual harassment, and symptoms of depression of each participant.

Workplace abuse was evaluated using a reduced and modified eight-item version of the Generalized Workplace Abuse (GWA) instrument^{6,8}). For each item, respondents were instructed to circle the response most closely describing their own experiences in the past 12 mo in their work setting. The response options included: "never," "once," and "more than once". A summary score was calculated by adding up the number of items for which participants reported at least one experience of abuse. Each item was scored according to the frequency of occurrence ranging from 0–16. Respondents were also asked to indicate whether the perpetrator for any of the above abuses was her boss, coworker or student. Cronbach's alpha was calculated for the measure, and the percentage of participants who reported experiencing at least one type of abuse during the past 12 mo was also determined.

Sexual harassment in the workplace was measured using a five-item questionnaire used previously by other investigators⁶⁻⁸). A single-item question regarding whether or not the respondent believed she had been sexually harassed at work was also included⁷). A summary score was computed by adding up the number of items for which participants reported at least one experience of sexual harassment (each item with a score of 1; score range: 0–5). Cronbach's alpha was calculated for the measure, and the percentage of participants who reported experiencing at least one type of sexual harassment during the past 12 mo was also calculated.

Given the sensitive nature of the questions, a five-item validated social desirability scale was included to evaluate the respondent's tendency of giving socially desirable responses¹³). Participants were asked to determine the extent to which the following statements were true for them: (1) "I am always courteous, even to people who are disagreeable;" (2) "There have been occasions when I took advantage of someone;" (3) "I sometimes try to get even rather than forgive and forget;" (4) "I sometimes feel resentful when I don't get my own way;" and (5) "No matter who I'm talking to, I'm always a good

listener." Response options included: "definitely true," "mostly true," "don't know," "mostly false," and "definitely false." Since only the most extreme response is considered indicative of socially desirable responding, the 5-point response scale (score range: 0–5) was dichotomized to minimize incorrect classification¹³.

Depressive symptoms were assessed using questions from the Patient Health Questionnaire (PHQ-9) quick depression assessment tool¹⁴. The PHQ-9 consists of nine questions based on the *DSM-IV* criteria for a major depressive episode. Each of the questions asks participants to select the frequency of the depressive symptoms that they experienced during the current academic year. Symptoms of depression were determined by the response to the question: "Over the past year, how often have you felt the following problems?" The problems were as follows: (1) Little interest or pleasure in doing things; (2) Feeling down, depressed or hopeless; (3) Trouble falling asleep, or sleeping too much; (4) Feeling tired or having little energy; (5) Poor appetite or overeating; (6) Feeling bad about yourself or that you are a failure or have let yourself or your family down; (7) Trouble concentrating on things such as reading the newspaper, watching television, or listening to the radio; (8) Moving or speaking so slowly that other people could have noticed; and (9) Thought that you would be better off dead or hurting yourself in some way. The responses were coded, 0=never, 1=several weeks during past year, 2=more than half of past year, and 3=nearly the whole year. An overall depression score was computed by summing responses for each of the nine items on the scale¹⁵. The overall score for each participant was categorized into depressive symptom severity categories: Minimal=0–4, Mild=5–9, Moderate=10–14, Moderately Severe=15–19, or Severe=20–27. The PHQ-9 has been used previously to estimate prevalence of depressive symptoms in Ethiopia⁹.

Information concerning socio-demographic and lifestyle characteristics, including the use of khat leaves (*Catha edulis*), a natural stimulant with amphetamine-like effects that is commonly used for social recreation in Ethiopia¹⁶, was also collected. The questionnaire was first written in English and then translated to Amharic, the official language of Ethiopia. The Amharic version of the questionnaire was then pre-tested among college staff in a private college in Addis Ababa and appropriate modifications were made based on the results obtained from the pilot study. Three trained research coordinators (two instructors from the University of Awassa and one from Addis Continental Institute of Public Health) assisted with distribution, instruction, and supervision of the completion of study questionnaires. Research coordinators participated in a one day training session that focused on the basic skills of data collection and contents of the questionnaire.

Staff members were briefed on the purpose of the study and invited to ask questions before questionnaires were distributed. All present at the onset of the briefing elected to remain, thus questionnaires were distributed to each staff member. Participants were asked to sit separately and were instructed not to discuss responses to study questions among themselves while completing the questionnaire. Of the staff members who were approached, 99.9% accepted the invitation and participated in this study. There was no set time limit for completing the questionnaire. All completed questionnaires were anonymous and no personal identifiers were used. Completed questionnaires were returned to the study staff by placing them inside a sealed envelope.

The procedures used in this study were approved by the Institutional Review Board of Addis Continental Institute of Public Health and Awassa Health Sciences College in Ethiopia and the Human Subjects Division at the University of Washington, USA. Data were double entered into EPI INFO Version 3.3.2, public access software made available from the US Centers for Disease Control and Prevention.

Variable specifications and statistical analyses

After examining descriptive statistics of entered data, participants' experiences with workplace abuse and sexual harassment (each specified as dichotomous variables) during the last 12 mo were determined on the basis of their responses to the study questionnaire.

Participants' age was categorized as follows (18–30, 31–40, 41–50, and ≥ 51 yr). Other variables were categorized as follows: current position in the colleges (academic staff and administrative staff); education level (less than high school, high school graduate, college graduate); religious affiliation (Orthodox Christian, Protestant, other); marital status (married and unmarried); current cigarette smoking habit (yes and no); current alcohol consumption habit (yes and no); and current khat chewing habit (yes and no).

Frequency distributions of socio-demographic, behavioral, and lifestyle characteristics were explored. All data were summarized and displayed as number and proportion of participants possessing each characteristic (categorical variables). For continuous variables, group-specific means and standard deviations (SD) were reported.

In an effort to evaluate the independent and joint effects of exposure to workplace abuse and sexual harassment on symptoms of depression, we created a 4-level combined variable using the procedures described by Rothman¹⁷. We categorized participants into four groups based upon their reported experience with workplace abuse and sexual harassment, resulting in the following categories: none, workplace abuse only, sexual

Table 1. Socio-demographic and lifestyle characteristics of study participants

Characteristics	Total N=387		Academic Staff N=59		Administrative Staff N=328		<i>p</i> *
	n	%	n	%	n	%	
Age (yr) ^α	28.5 ± 0.3		26.6 ± 0.7		28.9 ± 0.4		0.007
Age (yr)							
18–30	289	74.7	52	88.1	237	72.3	0.057
31–40	73	18.9	4	6.8	69	21.0	
41–50	23	5.9	3	5.1	20	6.1	
≥51	2	0.5	0	0.0	2	0.6	
Education Level							
Less than high school	15	3.9	1	1.7	14	4.3	0.001
High school graduate	112	28.9	6	10.2	106	32.3	
College graduate	256	66.1	52	88.1	204	62.2	
Religion							
Orthodox Christian	220	56.8	32	54.2	188	57.3	0.845
Protestant	135	34.9	22	37.3	113	34.5	
Other	28	7.2	5	8.5	23	7.0	
Married							
No	231	59.7	41	69.5	190	57.9	0.148
Yes	153	39.5	18	30.5	135	41.2	
Khat User	53	13.7	8	13.6	45	13.7	1.000
Cigarette Smoker	8	2.1	0	0.0	8	2.4	0.614
Alcohol Consumer	93	24.0	13	22.0	80	24.4	0.868
Poor Health Status**	39	10.1	7	11.9	32	9.8	0.636
Social Desirability Score ^α	1.42 ± 0.061		1.17 ± 0.139		1.47 ± 0.068		0.058

^α Mean ± SEM. **p*-value from Pearson Chi-Square test for categorical variables or from Student's *t*-test with unequal variance for continuous variables. **Fair and less than fair self described health assessment.

harassment only, and both workplace abuse and sexual harassment. The first category “none” was specified as the reference group. We used the Chi-square test to assess the relationship between symptoms of depression (expressed as a dichotomous outcome variable: No/Yes) and exposure to workplace abuse and sexual harassment¹⁸). We also calculated odds ratios for depression according to exposure to workplace only, sexual harassment only, and joint exposure to both workplace abuse and sexual harassment in relation to a single referent group (i.e., no exposure). This approach was taken since it is known that most epidemiologic studies generally do not have adequate statistical power to formally test for effect modification¹⁹). All statistical analyses were performed using SPSS (version 14.0, SPSS Inc. Chicago, IL, USA) software. All reported *p*-values are two-tailed and statistical significance was set at 0.05.

Results

Socio-demographic and lifestyle characteristics of administrative and academic staff are presented in Table 1. Among the 387 female staff members who completed the survey questionnaire 59 (15.2%) were academic staff

and 328 (84.8%) were administrative staff. About 75% were 18 to 30 yr old, 66% were college graduates, 57% were Orthodox Christians, and 40% were married. Nearly a quarter in the sample reported consuming alcoholic drinks while 13.7% reported chewing khat and 2.1% reported smoking cigarettes. About 10% of the participants self-reported as having poor health status. The social desirability score did not vary significantly by staff position, with the score averaging between 1 and 2.

Among the entire study population, 318 (82.2%) reported having at least one experience of workplace abuse within the past 12 mo, with a similar pattern of distribution amongst academic and administrative staff (Table 2). The workplace abuse summary score, which combined information across the eight types of abuse (Cronbach's alpha 0.7–0.8), was slightly higher, on average, for administrative staff (2.98) than for academic staff (2.54). Overall there was no statistically significant difference between the types of workplace abuse experienced by academic and administrative staff.

The most common form of workplace abuse was “being screamed or yelled at,” and was reported by 54.0% of

Table 2. One year prevalence of workplace abuse, overall and by job class

Work place abuse	Total N=387		Academic Staff N=59		Administrative Staff N=328		<i>p</i> *
	n	%	n	%	n	%	
Screamed or yelled at:							
Yes	209	54.0	26	44.1	183	55.8	0.087
Subjected to hostile or offensive gesture							
Yes	191	49.4	26	44.1	165	50.3	0.323
Sworn at							
Yes	144	37.2	18	30.5	126	38.4	0.246
Talked down to, as though inferior							
Yes	144	37.2	18	30.5	126	38.4	
Treated as though not as good at job as really is							
Yes	159	41.1	21	35.6	138	42.1	0.317
Someone at work tried to control non-work time							
Yes	157	40.6	22	37.3	135	41.2	0.566
Tread unfairly in work assignments							
Yes	98	25.3	19	32.2	79	24.1	0.256
Who did any of the above work place abuse?							
Boss	95	24.5	17	28.8	78	23.8	0.512
Co-worker	91	23.5	16	27.1	75	22.9	0.621
Student	55	14.2	9	15.3	46	14.0	0.843
Experienced at least one type of workplace abuse	318	82.2	47	79.7	271	82.6	0.582
Workplace abuse summary score							
Mean ± SEM	2.91 ± 0.11		2.54 ± 0.27		2.98 ± 0.12		0.141
Cronbach's alpha	0.794		0.775		0.798		

**p*-value from Pearson Chi-Square test for categorical variables or from Student's *t*-test with unequal variance for continuous variables.

the surveyed population. Abuse was nearly equally likely to have occurred by a boss or co-worker (24.5%, 23.5% respectively), with fewer staff members reporting abuse from students (14.2%).

Nearly half of the study population reported having experienced at least one of the five types of sexual harassment included in the survey instrument in the last 12 mo (Table 3). Of the 181 staff members who reported at least one type of harassment, only 31 (8.0%) believed that they had actually been sexually harassed at their workplace. The sexual harassment summary score (Cronbach's alpha 0.7–0.85) did not vary significantly across staff types, but was slightly higher for academic staff (0.912) than for administrative staff (0.787). The most common type of sexual harassment reported through

the survey was “unwanted suggestions about or references to sexual activity,” with 30.2% of the population affected, the majority of which said that the experience did not affect their work.

Amongst those surveyed, 53 (13.7%) reported no experience of workplace abuse or sexual harassment, 16 (4.1%) reported only sexual harassment, 153 (39.5%) reported only workplace abuse, and 165 (42.6%) reported both abuse and harassment. Overall, 334 (86.3%) of those surveyed reported at least some form of sexual harassment or workplace abuse.

Overall, the mean depression score for this cohort was 3.7 (standard deviation 4.2, range 0–19), and 9.3% of the cohort were identified as having moderate or moderately severe depression. The frequency of depression in

Table 3. One year prevalence of sexual harassment at the workplace overall and by job class

Sexual harassment	Total N=387		Academic staff N=59		Administrative staff N=328		<i>p</i> *
	n	%	n	%	n	%	
Made you feel like you might get some reward if you engaged in sexual behavior							
No	351	90.7	55	93.2	296	90.2	1.000
Yes	28	7.2	4	6.8	24	7.3	
Made you feel like you might get punished in some way if you weren't sexually cooperative							
No	361	93.3	57	96.6	304	92.7	1.000
Yes	16	4.1	2	3.4	14	4.3	
Made unwanted suggestions about or references to sexual activity							
No	264	68.2	37	62.7	227	69.2	0.355
Yes	117	30.2	21	35.6	96	29.3	
Didn't affect work	87	22.5	18	30.5	69	21.0	
Affected work	30	7.8	3	5.1	27	8.2	
On the job, have experienced unwanted physical contact, including sexual							
No	304	78.6	43	72.9	261	79.6	0.286
Yes	77	19.9	15	25.4	62	18.9	
Didn't affect work	57	14.7	13	22.0	44	13.4	
Affected work	20	5.2	2	3.4	18	5.5	
Felt mistreated at work because of gender							
No	304	78.6	46	78.0	258	78.7	1.000
Yes	75	19.4	11	18.6	64	19.5	
Didn't affect work	13	3.4	1	1.7	12	3.7	
Affected work	62	16.0	10	16.9	52	15.9	
Reported at least one sexual harassment	181	46.8	32	54.2	149	45.4	0.257
Believed have been sexually harassed at work	31	8.0	4	6.8	27	8.2	1.000
Sexual harassment summary score							
Mean ± SEM	0.806 ± 0.055		0.912 ± 0.138		0.787 ± 0.061		0.406
Cronbach's alpha	0.812		0.742		0.822		

**p*-value from Pearson Chi-square test for categorical variables or from Student's *t*-test with unequal variance for continuous variables.

Table 4. Association between symptoms of depression with exposure to workplace abuse and sexual harassment

Exposure status	Depression* (Yes; N=36)		Depression (No; N=351)		OR (95% CI)
	n	%	n	%	
None	1	1.9	52	98.1	1.00 (Reference)
Workplace abuse only	7	4.6	146	95.4	2.12 (0.25–18.05)
Sexual harassment only	1	6.3	15	93.8	3.47 (0.20–58.79)
Both	27	16.4	138	83.6	8.00 (1.05–60.85)

*Depression is grouped as dichotomous variable (minimal and mild depression versus moderate, moderately severe, and severe depression); *p*-value from Chi-square test <0.001.

relation to participants' exposure to workplace abuse and sexual harassment is summarized in Table 4. The proportion of participants with depression were statistically significantly elevated in relation to reported experience of workplace abuse and sexual harassment ($p=0.001$). Compared with women reporting no experience with workplace abuse or sexual harassment, those who reported experiencing both workplace abuse and sexual harassment had an 8.00 fold increased risk of depression (OR=8.00, 95% CI:1.05–60.85). Inferences from this analysis are limited by our relatively small sample size as reflected by the wide 95% CI.

Discussion

Workplace abuse and sexual harassment are highly prevalent among college female faculty and staff members in Awassa, Ethiopia. Experiences of workplace abuse are more frequently reported than sexual harassment. The findings of our study show that compared with women reporting no experience with workplace abuse or sexual harassment, those who reported experiencing both workplace abuse and sexual harassment had an increased risk of depression.

Although the amount of previous research focusing on workplace abuse and sexual harassment among female students and women employed in other settings is more widely available, information on the prevalence and resulting health effects among female faculty and staff in academic settings is relatively limited⁵. Thus, there is a smaller base of knowledge to draw from and explain trends in the data, especially concerning the experiences of women in developing countries. The 12-mo prevalence of workplace abuse noted in the present study is higher than estimates reported from previous studies. For example, 82% of the female faculty and staff in the present study reported experiencing any workplace abuse. This figure is quite a bit higher than the reports by Richman *et al.* who noted that 68% of the female faculty surveyed at American universities reported experiencing workplace abuse⁶. Another American study focusing on workplace abuse reported a 12-mo prevalence of 52%⁸; however, this study included both men and women. Multiple studies agree that females who work in occupations that challenge traditional gender roles are more likely to experience abuse and harassment than men⁴⁻⁶.

The results of the present study also indicate that nearly 47% of women reported experiencing at least one type of sexual harassment, which is similar to reports from existing studies in western countries ranging from 40% to 57%^{5,6}. Data in the present study, however, differs from reports from non-western countries. Chen and colleagues found the one year prevalence of sexual harassment to be 9.5%, and workplace abuse 25% in Taiwan¹⁰, whereas nearly 56% of nurses surveyed in Japan answered that they had been sexually harassed²⁰.

Another study in Thailand found that less than one % of nurses reported experiencing sexual harassment¹¹. This variation may be explained by the difficulty of studying harassment and abuse due to the lack of a commonly accepted definition and any standardized instrumentation that could provide comparable results⁷.

Unlike previous studies, we did not observe a significant difference in reported amounts of sexual harassment and workplace abuse in relation to status at the university, whether academic or administrative⁶.

Given the similar nature of sexual harassment and gender-based violence, the high prevalence of sexual harassment observed in this study is not surprising, since the prevalence of gender-based violence in Ethiopia is also very high. In the WHO Multi-country Study on Women's Health and Domestic Violence against Women, Ethiopia was found to have the highest prevalence of past and current experiences of sexual violence against women by intimate partners compared to other nine countries in the study²¹. In the study sample of 2,261 women from Butajira, Ethiopia, 70.9% (95% CI 69.0–72.7%) of the study subjects reported experiencing gender-based violence in their lifetime²¹. In a study conducted by Arnold *et al.*, 46.1% (95% CI 43.3–48.9%) female students enrolled in colleges in Awassa, Ethiopia reported experiencing gender-based violence since enrolling in college²². The lifetime prevalence of sexual violence was 54.9% (95% CI: 52.0–57.8%), with 35.3% (95% CI: 32.5–38.1%) of students reporting sexual abuse during the academic year²². Because college faculty and staff are instrumental in preparing students to become future leaders and professionals, and because sexual harassment, workplace abuse, gender-based violence and discrimination are common in schools and universities⁵, there is a need to develop and implement intervention strategies that take into account faculty members' own personal experiences and perceptions of workplace abuse, gender-based violence, and sexual harassment.

Overall, results of our study indicate that women jointly exposed to workplace abuse and sexual harassment are at an increased risk of having depressive symptoms and possibly depression compared with women reporting no experience with workplace abuse or sexual harassment. These findings are in agreement with previous research that indicated a higher prevalence of symptoms of depression amongst faculty members^{3,4,6,12}. Research that relates experiences of abuse and harassment to depression and other mental health effects, though available, is limited. Bjorkqvist and colleagues³ found that victims of sexual harassment among employees at a university in Finland were more likely to experience higher levels of depression, anxiety, and aggression than those who did not experience sexual harassment, with some evidence that victims also displayed symptoms suggestive of post-traumatic stress disorder ($p<0.001$).

Similarly, Richman *et al.*⁶⁾ also found significant links between experiences of sexual harassment and workplace abuse to mental health effects, while also linking such experiences to increased substance abuse ($p < 0.05$). Despite differences in study subject characteristics, operational definitions of sexual harassment and workplace abuse, and instruments used to assess symptoms of depression, available data indicate that the mental health status of victims of workplace abuse and sexual is adversely affected. Future research should focus on the mental as well as physical health consequences of workplace abuse and sexual harassment.

Our study, as well as several others on this topic, relies on self-reported experiences of harassment and abuse, which possibly introduces response bias that may distort the results. Although this method is more convenient and expedient for surveying, certain factors detract from the ability of the study to make inferences about the female population as a whole. For instance, even in a study that examines the issue of sexual harassment on multiple levels of the academic experience, response bias still had a prominent impact on the study since women who have experienced harassment or abuse are more likely to respond, thus leading to over-representation of the problem⁵⁾.

Conversely, another study conducted in Sweden concedes that women who have been abused are less likely to report such experiences voluntarily⁴⁾. Considering the large differences between the reported experiences of harassment and abuse, reluctance to report abuse and mental illness like depression is a known issue in Ethiopia where women who participated in a previous study exhibited fear of stigma resulting from disclosure^{9, 22)}. Therefore, social desirability bias may lead respondents to overestimate their health and underestimate their experiences of harassment, abuse, and substance use in order to make their health and lifestyle appear more socially acceptable. By promising anonymity in the administration of the survey, research participants are more likely to report stigmatized behaviors²³⁾. We included the Social Desirability Score to account for responses that may have been given due to socially acceptable norms.

The cross-sectional design of our study does not allow inferring causality. For instance, although an association exists between workplace abuse and symptoms of depression, it is not necessarily that the onset of depression spurs from workplace abuse experiences; perhaps women with symptoms of depression are more likely to report experiences of workplace abuse.

Our study was conducted in Awassa, a southern city of Ethiopia, among women faculty and staff at eight colleges and universities. The results from the present may not apply to other college faculty and staff in Ethiopia. Additionally our study did not account for other types of

work stressors that the faculty and staff may have experienced. Future studies which incorporate other types of work stressors are warranted.

The short-term and long term deleterious effects of workplace abuse and sexual harassment should be thoroughly evaluated in developed and developing countries. Specifically, more studies are needed to fully appreciate the impact of work place abuse and sexual harassment on job satisfaction, academic performance and productivity. Some research has shown that sexual harassment can lead to poorer performance academically²⁴⁾. Huerta *et al.* documented poor academic performance in relation to sexual of harassment²⁴⁾. Similarly, Lee and colleagues found that high school students who have been harassed report paying less attention in class, receiving lower grades on individual assignments, and achieving lower grades in classes overall²⁵⁾. It is also important to assess the negative economic impacts of these abuses on the workplace as well as on the individual. Although individual opinions about perceived success and social dynamics in the workplace are difficult to quantify, further research, perhaps utilizing personal narratives to supplement self-administered surveys, is necessary to assess which variables have a more profound impact on the individual experiences of female faculty and staff.

The findings of our study and the work of others stress that workplace abuse and sexual harassment are persistent problems in academia that profoundly and negatively affect the lives of college women^{5, 6)}. In order to combat these pervasive problems, a comprehensive and multi-sectorial approach that combines institutional justice initiatives, reformed health policies and preventative educational programs are needed²⁶⁾. Furthermore, developing written guidelines, policies, and education programs designed to set standards for acceptable behaviors in educational settings have proven to be effective in changing norms¹²⁾. It is important to note that changing the attitudes and norms that are entrenched in a society require sustained commitment and effort from all sectors^{12, 26)}.

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