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Sexual Harassment in Tertiary Science: Implications for Gender Equity

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Abstract
The paper focuses on the incidence of sexual harassment in tertiary science education and its attendant effects on students and academics. Data from a survey of six higher institutions comprising two universities, two colleges of education and two polytechnics was used. Results indicate high rate of sexual harassment of students and academics in science and science related courses that portray danger for attaining the much desired gender balance in tertiary science education.

Keywords: Sexual Harassment; Gender Equity; Women in Science.

Introduction

Evidence abounds to show that sexual harassment has always been a concealed problem in the society and in higher institutions. This endangers the desired ideal situation of students and staff working together on academic pursuits.

Sundt (1996) noted that almost one third of all Female College Students experience sexual harassment each year. Other studies such as those of Keith (1999); Holub, 2005; Dozier, 1990 revealed that about two percent of female College Students are victims of direct threats or bribes for sexual favours each year. It was also revealed that Male College Students also face sexual harassment. Infact Sundt (1996) claimed that almost twelve percent, male students and male academics have reported to have been sexually harassed.

The case of women in science and technology is even worse if sexually harassed due to their low representation in science and technology related courses (Sadik, 1997). Women constitute about fifty percent of the Nigerian population. Therefore, the concern about the low proportion of women in science and technology has philosophical, social and economic implications. The low representation of women in any educational programme would amount to loosing the contributions of one-half of the population in national development. Furthermore, science and technology have been acclaimed not only for the purpose of "technological achievement but also for solving societal problem such as simple

environmental sanitation and for meeting personal needs like the maintenance and promotion of personal health.

Sexual Harassment

Paludi and Barrickman (1991); Gordon, (1996); Leitich (1999); and Truax (1998); Dey Corn and Sax (1996); state that within academia "Sexual Harassment consists of verbal or physical conduct of a sexual nature, imposed on the basis of sex, that denies, limits or provides different treatment".

Other schools of thoughts on the same subject such as Betts and Newman (2001); Dey Korn and Sax (1996) believe that sexual harassment include:

- Physical assault, physical touching of any kind that is sexual in nature
- Direct or implied threats that submission to sexual advances may favourably affect employment, work status, promotion, grades or letters of recommendation or that rejection of sexual advances may produce a negative effect;
- Direct propositions of a sexual nature
- Subtle pressure for sexual activity, such as repeated or unwanted staring
- Pattern of conduct that tends to bring discomfort and/or humiliation, which may include comments of a sexual nature or sexually exploits, jokes, statements, questions or antidotes.
- A pattern of Conduct, which may include unnecessary touching, patting, hugging, or brushing against a person's clothing or body.

Almost all the definitions indicate a general agreement that sexual harassment is all about a range of behaviours from physical assault to verbal innuendoes, verbal and physical threats.

Tangri, Burt and Johnson's (1992) discovered that victims of sexual harassment among staff of organizations are those with lower status in organizations such as temporary or part-time workers, trainees, new comers and workers who are highly dependent on their jobs.

Some other Studies such as Dyikuk (2001); Bayly 1990; Holub, (2002); Mordi, (2000); UNESCO, (2000) revealed that married women are less likely to be victims of sexual harassment as marriage serves as a sort of protection, a constraint to an harasser. Divorced women and single women are more likely to be more sexually harassed than their married counterparts.

Tangri, Burt, Johnson (1992); Williams, Lam and shivery (1992) list the effects of sexual harassment to include decreasing job satisfaction, strained work relation, stress, depression, lower level of emotional and physical health, declining ability to work with others as a team and negative feeling about working and studying.

Harassment can result from both welcome and unwelcome acts and can involve persons in both lateral and vertical professional relationships. For example a professor and an adult

student may have a consensual sexual relationship. Despite the fact that the relationship is legal in the eyes of the law by virtue of its consensual nature, it is nonetheless unethical behaviour on the part of the professor, given the inequity of power in the relationship.

Studies of sexual harassment of staff and students in higher institutions and especially in science and science related courses are however limited as most victims are reluctant to report their experience to appropriate authorities due to shame and fear of repercussion.

Problem

There has been a world-wide growing concern about the low proportion of women engaged in the study of science and technology related courses. Organized efforts through girls and science and technology (GASAT), women in technical education have organized seminars and conferences to especially address this issue. One of the factors found to be responsible for the imbalance is the issue of reported sexual harassment by students and academics in science and science related courses at the tertiary level.

The main objectives of this paper is to analyse the occurrence, effects and proffer solutions to sexual harassment among students and academics of tertiary institutions with emphasis on those engaged in science and science related courses.

Methodology:

Design:

The design of the study is simply a descriptive survey.

Population and Sampling technique:

The population comprised mainly undergraduates in the sciences and related science courses and academics of some colleges of education, polytechnics and universities.

A total of six hundred students and one hundred and fifty academic staff were given the questionnaire to fill. After collection only 520 and 130 copies of the questionnaire were found to be valid for use.

Six higher institutions were randomly selected. One hundred students and twenty-five academics were randomly selected from the science and science related departments of these institutions.

Instrumentation:

A questionnaire on sexual harassment in tertiary institutions (QSHII) was used for data collection. The QSHTI has two sections. Section A provided data on the background of the participants while section B dealt with items on sexual harassment. The response format of the QSHTI was based on Likert's five point scale. The items were subjected to vetting by experts for validity and reliability.

The validity of the QSHTI has a test-retest validity coefficient of 0.85. The responses obtained from the questionnaire were subjected to confirmation by interviewing the participants orally.

Data Analysis
The data collected was analysed using frequency counts and percentages.

Result
Research question 1: Does sexual harassment actually occur in tertiary institutions?

Table 1: Occurrence of sexual harassment reported by students and academics

	Agreed		Disagree	
	Number	**Percentage**	**Number**	**Percentage**
Students (520)	281	(54.0)	239	45.0
Academic (130)	85	66.9	46	34.6
Total	**366**	**12.9**	**285**	**79.6**

Table 1 indicates that 54% students sampled agreed that sexual harassment occurs in tertiary institutions. 66.9% of the academics confirmed the occurrence of sexual harassment in their various institutions.

Table 2: Occurrence of sexual harassment based on institutional type

Institution type harassment	**Agreed**		**Disagreed**		**Total (sample)**
	Number	**Percentage**	**Number**	**Percentage**	
University	130	71.4	52	28.5	182
College of Education	97	60.24	64	39.75	161
Polytechnic	54	31.03	120	68.9%	174
Total					**520**

The result shown in table 2 indicates that the magnitude of sexual harassment differs with institutional type. The highest harassment rate is reported by all categories of victims in the universities followed by the colleges of education and least in the polytechnics sampled.

Research Question 2: What is the pattern of occurrence of sexual harassment in tertiary institutions?

Table 3: Incidence of Sexual Harassment Shown By Institutional Type and Departments

Departments	Institutional Type and Percentage Reporting Sexual Harassment						
	University		College of Education		Polytechnic		Total
	No	%	No	%	No	%	
Agriculture	33	(6.15)	19	(3.64)	11	(2.01)	61(11.8)
Health related courses	20	(3.6)	23	(4.42)	5	(0.96)	48(9.18)
Biological sciences	17	(3.26)	25	(4.73)	11	(2.19)	57(10.90)
Physical science	14	(2.42)	7	(1.30)	2	(0.30)	21(4.02)
Mathematics & Statistics	13	(2.34)	1	(0.25)	5	(0.86)	20(3.45)
Education (science)	9	(1.4)	11	(2.02)	22	(0.36)	20(3.78)
Engineering	24	(4.23)	11	(2.11)	18	(3.36)	54(10.30)

The data on department differences shows the highest level of harassment in agriculture 11.8%, biological science (10.9%). The reported magnitude of harassment in Agriculture and Engineering corroborated the study of Tangri, Burt and Johnson (1992) that department's gender balance influences the incidence of harassment. Surprisingly some of the reports do not conform with the above view. For example education which has a tendency to be female – dominated registered a low rate of harassment (3.78%), Engineering reported a higher average assessment rate of 10.30% whereas mathematics (3.45%) and physical sciences (4.04%) that are male dominated are among departments with least reported cases of sexual harassment.

Table 4: Academic status/gender percent reporting sexual harassment at present institution

	University		College of Education		Polytechnic		Total
	No	%	No	%	No	%	
Female students	93	71.5	62	63.9	39	72.2	194 (69.0)
Male students	37	43.8	36	37.11	14	27.7	87(30.96)
Female academics	13	76.4	11	57.8	10	66.6	34(66.66)
Male academics	9	52.9	5	31.2	11	40.7	25(31.64)

Table 4 shows that 69% of all females students sampled reported being harassed at their various institutions. A large gender difference was observed in the prevalence of sexual

harassment. Table 4 indicates that male academics also claim to be sexually harassed. Infact 31.64% of the male academics sampled reported being harassed.

As expected, power plays a critical element in most cases of sexual harassment (Paludi, 1994). This possibility is reflected in table 4 with incident of sexual harassment cross tabulated with academic status and gender. It is referred to in this study as a measure of power position.

Discussion of Results

In all the findings, most victims of sexual harassment are women (both students and academics). This portends a grave implication on gender imbalance in sciences and science related courses. Female representation in these courses which is adjudged low would be further reduced, of special interest in this study is the harassment of female academics reported and confirmed during interview sessions. This is due to the assumption that although a female academic has more position power than a male student, she lacks power in terms of her ascribed status as female. Infact, these offenders may not view the achieved status of women academics as legitimate and important as that of their male counterparts. The above is even more prevalent in the African setting with a biased view of the role of women.

Again, it was revealed that the universities reported the highest rate of harassment followed by colleges of education and least by the polytechnics sampled. The reason one may adduce for this may be the possibility that victims in different departments are more or less likely to recognize and report incidence of sexual harassment. On the other hand it may be that the large numerical advantage that men currently have in academia makes the departmental gender bias a less important factor.

The analysis of interview schedule administered on the subsample revealed minimal female participation in science and science related courses in Nigeria despite various efforts made by the government to reverse the trend. Apart from the impediment posed by sexual harassment other constraints are the expectations of marriage and child bearing roles, cultural belief that the woman's place is in the home, the erroneous impression that science technology and mathematics are men's field, lack of interest in science and science related courses by females and lack of proper counselling.

The female science students also pointed out that their male counterpart receive more attention and dominate activities. This finding corroborates the studies of Ibitoye (1998) and Onocha (1998). The study also revealed the presence of everyday inequalities inside and outside the classroom such as subtle differences in treatments. Again, evidence abound of the use of sex-biased texts that girls read, with more male focused examples and illustrations in science careers and females in stereotyped roles coupled with use of generic nouns and pronouns. This reported inequality corroborates those reported by the studies of Oakes (1990) and Erinosho (1998).

The female academics interviewed pointed to the dearth of role models for girls in science as there are more male science academics (especially in the physical science and most of the science related courses.

The above stated observations are all nuances of sexual harassment of female students and in some cases that of female academics leading to low participation of females in science accompanied with lack of interest and females students underestimating their ability in the sciences.

Implications

The occurrence of sexual harassment of female students and female academics have grave consequences for participation of females in science and science related courses. The situation may lead to:

- low female enrolment into higher institutions for science and science related courses;
- acute shortage of female science academics;
- dearth of female science academics to serve as role models for female students in science;
- low morale among female academics and students in science.

Conclusion and Recommendation

In all the findings, most victims of sexual harassment are women (both students and academics). One may then rightly suggest the hiring of more women in academics to ensure a balance. This would reduce the risk associated with harassment of women although this may increase the number of harassed individuals. The results also point to the possibility that students at a type of institution are likely to be more harassed than students of other types of institutions. It may also be that both students and academics at such institutions are more likely to be daring in pushing limits of appropriate behaviour and less likely to fear sanction than at other types of institutions. If so, institutions should place greater emphasis on defining and communicating appropriate standards of behaviour.

Institutions should develop policy statement indicating intolerance of sexual harassment and also create an accessible grievance procedure for victims.

Finally, all higher institutions should always strive to enhance a conducive campus climate for students and academics to pursue their activities in an environment devoid of any attempt to compromise the cherished academic values of fairness and equity.

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