

International Journal of Health Sciences (IJHS)



CARI
Journals

KNOWLEDGE AND EXPERIENCE OF GENDER-BASED DISCRIMINATION AMONG MEDICAL DOCTORS AND MEDICAL STUDENTS IN NIGERIA

DR UTIM SAMUEL SESUGH

utim001@gmail.com

Department of community medicine, Benue state university Makurdi, Nigeria

ABSTRACT

Purpose: Discrimination in healthcare setting is worldwide, and it takes many forms which can violate the most fundamental human rights protected in international treaties, and in national laws and constitutions. Experts have argued for more research and sex-disaggregated data in order to strengthen the understanding of gender as it affects health workers, especially in developing countries. The general aim of this research is directed at determining the level of knowledge and experiences of gender-based discrimination and describe their correlates among doctors and medical students in Nigeria. This research is undertaken to x-ray the challenges faced by medical students, and doctors within the health system by virtue of their gender in order to drive focused discussions, and actions towards a lasting solution.

Methodology: A Cross-sectional descriptive study design was used on a study population of 353 respondents comprising medical students and doctors from universities and their teaching hospitals in the six (6) geopolitical zones across Nigeria and participating schools were selected through multi-stage random sampling. A self-administered questionnaire was employed to gather information and data was analyzed using descriptive statistics and Chi-square test.

Results: It was observed that the highest number of respondents were in the south-south zone (30.7%), with most being females (55.8%). Majority of respondents were between the ages of 21-25 years (42%). High knowledge (96.8%) about gender-based discrimination was demonstrated by respondents and most cases of gender-based discrimination were observed among females (59.2%), with 67.4% of respondents experiencing gender-based discrimination in one form or the other. Males were found to constitute majority of perpetrators (54%) and 91% of victims did not report the incident. The result further showed statistically significant association between personal experience of gender-based discrimination and gender of respondents ($p < 0.05$). Respondents demonstrated good knowledge of gender-based discrimination. It further revealed that gender-based discrimination exist with a prevalence of 67.4%, with differences occurring in the personal experiences of gender-based discrimination by occupation and sex. However, majority of cases were not reported.

Unique Contribution to Theory, Policy and Practices: Organizing regular seminars to educate medical students and doctors about practices considered to be gender-based discrimination, and developing strict policies against gender-based discrimination in our training institutions (Medical schools/Teaching hospitals).

Keywords: *knowledge, experience, gender-based discrimination, medical doctors, medical students,*

INTRODUCTION

1.1 Background of Issues and Research Motivation

Discrimination in healthcare setting is worldwide and takes many forms (WHO, 2017). It violates the most fundamental human rights protected in international treaties and in national laws and constitutions (WHO, 2017). In the healthcare setting, it is directed towards some of the most marginalized and stigmatized populations and many individuals and groups face discrimination on the basis of their age, sex, race/ethnicity, health status, vulnerability to ill health, sexual orientation/gender identity, asylum/migration status etc (WHO, 2017).

A Nigerian study on experience of mistreatment among medical students found that respondents (98.5%) had experienced one or more forms of mistreatment during their training and Physicians were the main perpetrators. The effects include strained relationship with the perpetrators, reduced self-confidence and depression. It was concluded that almost all the respondents had experienced one or more types of mistreatments during their training (Owoaje *et al.*, 2012).

In Pakistan, it was found that gender discrimination is widely prevalent in undergraduate medical education. Also notable was the fact that females were both the main victims as well as the main perpetrators. In most cases, gender discrimination did not affect academic performance but caused emotional distress (Hashmi *et al.*, 2013).

It was reported about a female doctor who quoted her fellowship director as saying “how dare you get pregnant on me! Women in academics who have children are of no use to me” after she became pregnant again months after her first pregnancy ended in a stillbirth (Grant-kels, 2017).

Research on pay gap involving medical doctors and journalists found that discrimination and stereotype accounted for 49% and 51% of the variance in pay differentials of respondents. Also noteworthy is the fact that 51% of the variability in salary differential could be attributed to discrimination against females (Fapohunda, 2013).

Gender and Human Research for Health (HRH) experts have argued for more research and sex-disaggregated data in order to strengthen the understanding of gender as it affects health workers, especially in developing countries. Indeed, the lack of high-quality data may be a reason for limited attention to gender discrimination on the part of HRH stakeholders (Newman, 2014).

1.2 General Aim and Objective of Research

The general aim of this research is directed at determining the level of knowledge and experiences of gender-based discrimination and describe their correlates among doctors and medical students in Nigeria.

1.2.1 Specific Objectives

1. To find out the level of knowledge of medical doctors and medical students on gender-based discrimination
2. To find out the forms of experience of gender-based discrimination among medical doctors and medical students

1.3 Research Gap

Though there are studies on gender-based discrimination in the Nigerian healthcare system, these studies are very few and not fully representative of the geographical distribution of the country. Unfortunately, this might underplay the scale of the problem.

1.3 Key Research Questions

1. Does gender-based discrimination exist among medical doctors and medical students in Nigeria?
2. Is there any difference in the experience of gender-based discrimination among medical doctors and medical students Nigeria?

LITERATURE REVIEW

2.0 Discrimination in healthcare setting

Several studies have been conducted on gender-based discrimination among medical doctors and medical students. In a study conducted by Nagata-Kobayashi *et al.*, (2009), 84.8% of the respondents were reported to be maltreated. Verbal abuse was one of the most regularly experienced form (72.1%) while alcohol associated harassment was the next form of maltreatment (51.8%). Sexual harassment was also frequently reported among female participants (58.3%). The most habitually reported as abusers were doctors (34.9%) followed by patients (21.7%) and nurses (17.2%). The abuse was stated to have transpired most often during surgical rotations (27.6%), followed by rotations in departments of internal medicine (21.4%), emergency medicine (11.5%) and anesthesia (11.3%). Also, anger was the most recurrent emotional response to experiences of abuse (41.4%). The study concluded that strong precautionary measures will be established if discussion is made on the incidence of this generally wrong tradition in medical culture.

A study by Siller *et al.*, (2017) revealed that strangers (79.5%) are the most cited perpetrators of mistreatment followed by friends (75.0%) and university staffs (68.2%). Humiliation of students was reported to be the most common and distressing type of maltreatment. Female suffered more sexual abuse and humiliation than men and on the other hand men suffered more physical abuse than women. Women reported facing more distress from maltreatment experiences and also being maltreated by university staff than did men. Women perceived a higher risk of reporting sexual pestering to the organization than men. The following conclusions were drawn: types of maltreatment can differ by gender hence, this subject should be addressed using a gender perspective. Interventions should reach the societal level since there was a high prevalence of maltreatment committed by strangers.

In Meyer-van den Heever and Frantz, (2011) study, 32% reported having the perception that they were not taken seriously by their patients because they were female while males (24%) reported not be taken seriously by their males peers. 17% of the participants reported feeling discriminated against although majority (83%) did not feel that they were discriminated against while in training. 51% stated that they were perceived differently as regards their profession due to their gender. Almost all the respondents felt that men and women are equals as healthcare professionals. The necessity for additional support for women in medicine as well as addressing the gender role assumptions evident in the educational experience through curriculum reform.

Results obtained from the study by Vidanapathirana *et al.*, (2017) revealed that majority (55.1%) of the respondents had promising attitudes towards gender equality and its numerous aspects. Positive attitudes were found to be associated with female sex, higher level of paternal and maternal education, paternal employment. The study concluded that knowledge on gender equality was satisfactory and attitudes towards it were favorable among selected group of university undergraduates.

In a study conducted by Bruce *et al.*, (2015), 81% of the respondents reported to have suffer gender-based discrimination in medical school, 91% in practice and 88% in residency. Discrimination from superiors, clinical support staffs, patients and physician peers were the perceived sources of gender-based discrimination with 60% originating from men and 40% from women. The conclusions drawn were: gender-based discrimination has a significant impact on women surgeons and comes from both sexes.

In a survey conducted by Fapohunda, (2013) the significant difference between the pay of male and female respondents was determined using mean comparisons. The survey discovered that the effects of crowding discrimination, differences in individual characteristic account for the gender pay gap and that the labour market discrimination against females persists.

Results obtained from the study by Owoaje *et al.*, (2011) revealed that virtually all the respondents (98.5%) had suffered of maltreatment in the course of their training. Being shouted at (92.6%), disapproving remarks about their academic performance (71.4%), open belittlement or humiliation (87.4%), awarding credit to someone else for work done by the student (49.4%) and punishment by assigning tasks to do (67.7%) were the usual forms faced by the students. The other reported forms of maltreatment were; religious or age discrimination (34.2%), harmful threats (26.4%) and sexual pestering and other types of gender based maltreatment (33.8%). The committers of these incidents were physicians and happened during surgical rotations. The study concluded that most medical students suffer verbal forms of maltreatment and abuse in the course of their training.

Results from a study conducted by Ebuenyi *et al.*, (2017) revealed that majority of the doctors (68.6%) were employed at tertiary healthcare level. As regards their area of expertise, most of them were medical officer (34.5%) compared to the other areas while 17.2% were consultants. 88.2% were practicing in urban areas. Higher percentage of the 69 female doctors were practicing in urban areas (26.7%) likened to rural areas (9.1%). Specialists were more likely

to practice in city (19.2%) than rural areas (3.3%) hence a significant relationship between residency status and place of practice ($P < 0.05$). the study concluded that there seem to be more doctors at tertiary level of care and in urban areas compared to rural settings.

Results obtained in a descriptive cross sectional study by Oku *et al.*, (2014) disclosed that one or more forms of maltreatment was experience by more than a third (35.5%) of all respondents in the course of their training, with 38.5% of them facing it weekly. Verbal abuse was the most common form of mistreatment faced (52.5%) and medical consultants (18.6%), other cadre of doctors (17.3%) and lecturers (14.4%) were the main perpetrators of these incidents. 8.8% of the respondents reported that being in the clinical level of study and aged above 25 years were significantly associated with suffering maltreatment in the study. The study recommended the development of suitable tactics for the prevention and reduction of these events.

2.1 The discrimination theory

There is labour market discrimination anytime men and women of equivalent productivity and aspirations are treated differently in retention, hiring and promotion practices. It was confirmed by Blau *et al.*, (1996) that the model of statistical discrimination presumes that employers and/or customers experience imperfect information and uncertainty regarding people's potential productivity. Hence, individuals are discriminated against because the broader group to which they belong is believed to share some undesirable, stereotypic characteristics. Subsequently, competent applicants are wrongly excepted from employment. Establishments may believe that females have less expected employment life than their male counterparts and choose not to grant them equal opportunities of promotions, job assignments, firm-specific training available to males. Base for example on the perception that on average, women who are married are more likely to withdraw from the labour force at some point than married men, employers may doubt the returns from training or promoting married women and so be less willing to do so. Albeit this type of discrimination is not easily measurable, it ultimately becomes an institutional factor with adverse effects on women's economic status by lowering their incentives to continue participating in training programs, schooling and also remain continuously in the labour market.

DATA AND RESEARCH METHODOLOGY

3.1 Study Design and Setting

A Cross- sectional descriptive study design was used on a study population comprising medical students and doctors from universities and their teaching hospitals in each geopolitical zone across the country. The schools involved include:

1. Kaduna State University Medical School and Teaching Hospital (North-West Nigeria)
2. Benue State university Medical School and Teaching Hospital (North-Central Nigeria)
3. University of Maiduguri Medical School and Teaching Hospital (North-East Nigeria)
4. BABCOCK University Medical School and Teaching Hospital (South-West Nigeria)
5. University of Port Harcourt Medical School and teaching Hospital (South- South Nigeria)

6. Nnamdi Azikiwe University Medical School and Teaching Hospital (South East Nigeria)

These institutions were selected per region because the general population in each region of the country has similar socio demographic and cultural characteristics

3.2 Sample Size Determination

The minimum sample size will be determined using the Cochran's formula

$$n = \frac{z^2 pq}{d^2}$$

Where; n=minimum sample size for a population >10,000

z=standard normal deviation corresponds to 1.96 at 95% confidence interval.

p=prevalence obtained from previous study, which was 70.7% (gender variations in specialties among medical doctors working in public healthcare institutions in Bayelsa State, Nigeria 2017).⁸

p= 0.707%

q= complementary probability = (1-p) = 1-0.707=0.293

d=degree of accuracy=5% (0.05)

$$\text{Therefore: } n = \frac{(1.96)^2 \times 0.707 \times 0.293}{(0.05)^2}$$

$$= 318.3 \cong 318$$

Considering a non-response rate of 10%

$$n^1 = \frac{n}{1-f}$$

Where; n^1 = sample size after non- response rate of 10% has been corrected

n=sample size

f= assumed non-response

$$\text{Hence, } n^1 = \frac{318}{(1-0.1)} = \frac{318}{0.9} = 353.3 \cong 353$$

3.3 Sampling Technique

A multistage sampling technique was used.

Stage 1 Selection of Medical Schools and their Teaching Hospitals from the 6 Geopolitical zones by simple random sampling was done through balloting. The list of all the schools was used as the sampling frame and it was obtained from the records of the Medical and Dental Council of Nigeria (MDCN) accredited Medical Schools.

Stage 2 Proportionate allocation for the target population was done. This is because, each of the six (6) medical schools and their teaching Hospital vary in the

number of students and doctors. The figures used were obtained from the various medical students' associations (MSAs), Association of Resident Doctors (ARDs) and administrative department of the teaching Hospitals which summed up to **4,998 persons**. This process is captured below.

MEDICAL SCHOOL AND TEACHING HOSPITAL	NUMBER OF MEDICAL STUDENTS		NUMBER OF MEDICAL DOCTORS
North-West	163*353/4998 respondents	= 12	170*353/4998 respondents = 12
North-Central	401*353/4998 respondents	= 28	185*353/4998 respondents = 13
North-East	893*353/4998 respondents	= 63	230*353/4998 respondents = 16
South-West	337*353/4998 respondents	= 23	129*353/4998 respondents = 9
South-South	720*353/4998 respondents	= 51	800*353/4998 respondents = 57
South-East	500*353/4998 respondents	= 35	470*353/4998 respondents = 33

Stage 3 Systematic sampling was applied to select individual respondents with the first respondent selected at random. Then using an interval “X” which was determined using N/n where N = study population and n = sample size to select the remaining respondents.

3.4 Instrument for Data Collection

A semi-structured self-administered questionnaire comprising three (3) sections including social demography, knowledge assessment and assessment of experiences of gender-based discrimination was used. The questionnaire is a modification of the works by Owoaje *et al.* (2012) and Constance Newman, (2014). The questionnaire was anonymously administered, and all ethical concerns of the Helsinki declaration followed.

3.5 Data Collection

Data was collected throughout October-November 2018 and Research assistants were trained on the research protocol to help with questionnaire administration.

3.6 Inclusion Criteria

- Participant must be a student or doctor of the selected institution or teaching hospital
- Willingness to participate in the research.

3.7 Exclusion Criteria

- Participant who is not a student or doctor of the selected institution or teaching hospital
- Refusal to participate in the research

3.8 Data Analysis/Presentation

Data collected from questionnaires was cleaned for completeness and analyzed using statistical program for social sciences (SPSS) version 23. Results were presented in frequency tables and chi square test tabulations were used to check for associations between personal experiences of gender-based discrimination and occupation, gender and location of respondents respectively and a p-value of <0.05 was statistically significant.

The knowledge score was calculated on a scale of 0-14 based on a set of component questions. The marks obtained for each question was added and the total score for each respondent was placed in the appropriate range. The range for the knowledge score was categorized with consultation from a gender expert. Marks from 0-7 were considered to be a low level of knowledge and marks from 8-14 were considered to be a high level of knowledge. This was further divided as very poor (0-3), poor (4-7), satisfactory (8-11) and good (12-14).

RESULT PRESENTATION

The demographic characteristics of the respondents were as follows:

TABLE 1: Social demographic distribution

VARIABLE	FREQUENCY (n=319)	PERCENT (100%)
Location		
North-East	74	23.2
North-Central	33	10.3
North-West	24	7.5
South-East	69	21.6
South-West	21	6.6
South-south	98	30.7
Gender		
Male	141	44.2
Female	178	55.8
Age		
15-20years	28	8.8
21-25years	134	42.0
26-30years	104	32.6
31-35years	37	11.6
36-40years	10	3.1
41-45years	1	0.3
above 45years	5	1.6
Occupation		

Level of Knowledge (Score)	No. of Students (n=319)	Percent (100%)
Medical Doctor	124	38.9
Medical Student	195	61.1
Low		
Very Poor (0-3)	0	0.0
Poor (4-7)	10	3.2
Total	10	3.2
High		
Satisfactory (8-11)	85	26.6
Good (12-14)	224	70.2
Total	309	96.8

The table above shows 319 respondents from across the six geopolitical zones in Nigeria. At the time of data collection, majority of respondents (30.7%) were residing in the South-South zone, 23.2% were in the North-East zone, 21.6% were in the South-East zone, 10.3% were in the North-Central zone, 7.5% were in the North-West zone, and 6.6% were in the South-West zone. More than half 178 (55.8%) are females compared with 141 (44.2%) males. A greater number of respondents (42%) were between ages 21-25 years followed by 26-30 years (32.6%). Medical students represented 61.1% of respondents, while medical doctors were (38.9%). Most of the respondents were medical students (61.1%) while medical doctors constituted 38.9%.

Table 2: Frequency distribution by knowledge score on gender-based discrimination among medical doctors and medical students

The results revealed that a majority of respondents had high level of overall knowledge on gender-based discrimination, with a mean score of 12.1 (86.7%). Most respondents got high scores (96.8%). However, 3.2% got low scores.

TABLE 3: Observed experience of gender-based discrimination

VARIABLE	FREQUENCY	PERCENT
Observed experience of gender-based discrimination		
Yes	150	47.8
No	164	52.2
Total	314	100.0

Gender of victims

Male	62	40.8
Female	90	59.2
Total	152	100.0

Type of abuse Observed

Verbal abuse	72	46.5
Sexual Abuse	53	34.2
Physical abuse	30	19.4
Total	155	100.0

Almost half of respondents (47.8%) knew a colleague that had been harassed in one form or the other, with females (59.2%) as majority of the victims and the commonest form of harassment was verbal abuse (46.5%).

TABLE 4: Personal experience of gender-based discrimination

VARIABLE	FREQUENCY	PERCENT
Personal experience of gender-based discrimination		
Yes	215	67.4
No	104	32.6
Total	319	100.0
Form of personal experience of gender-based discrimination (multiple response)		
Favoritism	146	26.2
Humiliation	137	24.6
Denied Opportunity in career advancement/leadership position	117	21.0
Threat to fail/give low marks	96	17.2
Sexual Harassment	61	11.0

Total

557

100.0

Majority (67.4%) have experienced gender-based discrimination as a medical doctor or medical student, including Favoritism (26.2%), Humiliation (24.6%), denied opportunity in career advancement/leadership position (21.0%), Threat to fail (17.2%) and Sexual Harassment (11.0%).

TABLE 5: Information about perpetrators of gender-based discrimination

VARIABLE	FREQUENCY	PERCENT	
Relationship with perpetrator of Sexual harassment prior to the incident			Most of the sexual
Formal	37	60.7	
Cordial	19	31.1	
Dating	5	8.2	
Total	61	100.0	
Perpetrator of gender-based discrimination			
Consultant/lecturer	105	58.3	
Registrar	31	17.2	
Other health workers	18	10.0	
Medical student	16	8.9	
Administrative/clerical staff	10	5.6	
Total	180	100.0	
Gender of perpetrator			
Male	95	54.6	
Female	36	20.7	
Both	43	24.7	
Total	174	100.0	
Reported incident			
Yes	17	9.9	
No	155	90.1	
Total	172	100.0	

harassment occurred in a formal setting (60.7%). Majority of perpetrators were Consultants/lecturers (58.3%) followed by Registrars (17.2%), Males (54.6%) constituted most of the perpetrators, however 24.7% indicted both male and female. Interestingly 90.1% of those who experienced gender-based discrimination did not report it.

TABLE 6: Association between personal experience of gender-based discrimination and occupation

Personal Experience of gender-based discrimination	Occupation		χ ²	P – Value
	Medical Doctor	Medical Student		
Denied opportunity in career advancement/leadership position	(38.5%)45	(61.5%)72	5	0.014
Sexual Harassment	(41.0%)25	(59.0%)36		
Humiliation	(35.0%)48	(65.0%)89		
Threat to fail/give low marks	(32.3%)31	(67.7%)65		
Favoritism	(37.0%)54	(63.0%)92		
TOTAL	(40.9%)88	(59.1%)127		

The table above shows that there is significant association between personal experiences of gender-based discrimination and occupation of respondents (P-value <0.05, df = 5, X²=14.353)

TABLE 7: Association between personal experience of gender-based discrimination and gender

Personal Experience of gender-based discrimination	Gender		df	P-value
	Male	Female		
denied opportunity	(53.8%)63	(46.2%)54	5	0.000293
sexual harassment	(34.4%)21	(65.6%)40		
Humiliation/belittlement	(48.9%)67	(51.1%)70		
Threat to fail/give low marks	(58.3%)56	(41.7%)40		
favoritism	(51.4%)75	(48.6%)71		
TOTAL	(47.0%)101	(53.0%)114		

There is significant association between personal experiences of gender-based discrimination and gender of respondents ($p < 0.05$, $df = 5$, $X^2 = 23.318$)

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

In this aspect of the study, the most significant findings from the research on knowledge and experience of gender-based discrimination among medical students and medical doctors in Nigeria is discussed, conclusions and appropriate recommendations are also made based on findings.

Respondents consented to participating in the study by filling the self-administered questionnaires with a 90.4% response rate.

The variation in the population of respondents in the various geopolitical zones with special emphasis on the south-south zone having the highest (30.7%) and south-west zone having the lowest (6.6%) is largely due to the individual accredited capacity of the selected medical schools and their teaching hospitals. Females were observed to have participated more in the research with 55.8% compared with males who had 44.2%. This is not surprising as it is based on chance and could go either way as seen in similar studies by Oku A O et.al which had 67.8% females and Tinuke. M which had 44.3% females (Fapohunda, 2013; Oku *et al.*, 2014). The most represented age group is between 21-25 years (42%) which is also expected based on the higher proportion of medical students (61.1%) compared with medical doctors (38.9%) who participated in the study (Das *et al.*, 2016; Siller *et al.*, 2017; Vidanapathirana *et al.*, 2017).

Respondents demonstrated high knowledge (96.8%) of gender-based discrimination, based on definitions by Newman C. in his study on Time to address gender discrimination and inequality in the health workforce and this is also seen in a study on gender equality (Newman, 2014; Vidanapathirana *et al.*, 2017). it was however noticed that 3.2% had low knowledge, while this may appear negligible it should not be considered insignificant because such persons might become policy makers someday and become a draw back to

the fight against discrimination (Vidanapathirana *et al.*, 2017). In Table 3 majority of colleagues observed gender-based discrimination among females (59.2%), which is also consistent with findings by Bruce AN, *et. al* on the perceptions of gender-based discrimination during surgical training and practice (Bruce *et al.*, 2015). Verbal abuse (46.5%) had the highest occurrence (Oku *et al.*, 2014).

Majority (67.4%) of respondents experienced one form of gender-based discrimination or the other, among the common experiences were favoritism (26.2%), humiliation (24.6%) and denied opportunity (21.0%) (Owoaje *et al.*, 2012; Hashmi *et al.*, 2013; Bruce *et al.*, 2015; Oku *et al.*, 2014; Siller *et al.*, 2017). However, a South African study had a contrasting prevalence rate (17%) (Meyer-van den Heever and Frantz, 2011). Majority of sexual harassment occurred in a formal relationship (60.7%). Majority of perpetrators of gender-based discrimination were Consultants/lecturers (58.3%) (Bruce *et al.*, 2015). However, there are variations from a study on gender differences and similarities in medical students' experiences of mistreatment by various groups of perpetrators (Siller *et al.*, 2017). Also worthy of note in this study is that males (54.6%) constituted most of the perpetrators which is in contrast to a study in Pakistan where females were the main perpetrators (70.8%) (Hashmi *et al.*, 2013). Among those who experienced gender-based discrimination, 90.1% of victims did not report the incident (Hashmi *et al.*, 2013).

Correlates between personal experiences of gender-based discrimination and occupation of respondents was statistically significant with a prevalence of 40.9% for medical doctors and 59.1% for medical students which is in contrast to findings in another study where 87% experienced gender-based discrimination as medical students while 88% experienced gender-based discrimination as medical doctors (Bruce *et al.*, 2015).

Statistically significant association was also found between personal experiences of gender-based discrimination and gender of respondents. This showed that females experienced more of sexual harassment (65.6%) and humiliation/belittlement (51.1%) compared to males who experienced more of favoritism (51.4%), denied opportunity (53.8%) and threat to fail/ give low marks (58.3%) (Owoaje *et al.*, 2012).

CONCLUSION

From the results of the study, it shows that medical doctors and medical students in Nigeria have good knowledge of gender-based discrimination. It further reveals that gender-based discrimination exist with a prevalence of 67.4% and there is a difference in the personal experiences of gender-based discrimination among medical students and medical doctors in Nigeria, however majority of cases are not reported.

RECOMMENDATIONS

Based on the findings from the study, the following recommendations are postulated:

1. On account of the prevalence of gender-based discrimination and the experiences of victims from the study, it will be apt to organize regular seminars to update medical students and doctors on practices or actions that are not acceptable or otherwise

considered as gender-based discrimination and the possible consequences of such actions on colleagues. This can be organized at the level of the Nigerian medical Association during their Annual general meetings, by the teaching hospital management and by the administrative hierarchy of the various medical schools in Nigeria through the directive of the medical and dental council of Nigeria.

2. Creation/strict emphasis on zero discrimination tolerance policies in our institutions (Medical schools and Teaching hospitals) and communication of same to both teachers and students will improve reportage of incidences of gender-based discrimination. This will further stem the tide in the prevalence.

REFERENCES

- Araoye, M.O. (2003). Research methodology for health and social science. Ilorin Nigeria. 1st Edition. *Nathadex publishers*, pp. 118-121
- Blau, F.D., Ferber, M.A. and Winkler, A.E. (2001). The Economics of Women. Men. and Work, 3rd ed. Upper Saddle River, *New Jersey*: Prentice Hall.
- Bruce, A.N., Battista, A., Plankey, M.W., Johnson, L.B. and Marshall, M.B. (2015). Perceptions of gender-based discrimination during surgical training and practice. *Medical Education Online*, 20(1):259-263.
- Das, R., Das, S. and Debnath, S. (2016). Gender discrimination among professional college students in Agartala, India: a cross-sectional study. *International Journal of Community Medicine and Public Health*, pp. 2309-2312.
- Ebuenyi, I.D., & Ikuabe, P.O., Ufondu, C.C., Onubogu, C.U. and Onyeka, I.N. (2017). Gender variations in specialties among medical doctors working in public healthcare institutions in Bayelsa State, Nigeria. *Nigerian Journal of Medicine*, 26:18-22.
- Fapohunda, T. (2013). The Gender Pay Gap in Nigeria: Causes and Remedies. *Mediterranean Journal of Social Science*, 2:129-135.
- Grant-Kels, J.M. (2017). Sexism in medicine, circa 2016-2017. *International Journal of Women's Dermatology*, 3(1) 68-69.
- Hashmi A. M., Rehman, A., Butt, Z., Awais, A. M., Shahid, A. and Abbas Khan, S. (2013). Gender Discrimination among Medical Students in Pakistan: A Cross Sectional Survey. *Pakistan Journal of Medical Science*, 29(2):449-453.
- Meyer-van den Heever, E. and Frantz, J. (2011). Perceptions of female medical students on gender equality gains at a local University. *African Journal of Health Professions Education*, 3(2):15.
- Nagata-Kobayashi, S., Maeno, T., Yoshizu, M. and Shimbo, T. (2009). Universal problems during residency: abuse and harassment. *Medical Education*, 43:628-636.
- Newman, C. (2014). Time to address gender discrimination and inequality in the health workforce. *Human Resources for Health*, 12:25.

- Oku, A.O., Owoaje, E.T., Oku, O.O. and Monjok, E. (2014). Mistreatment among undergraduate medical trainees: A case study of a Nigerian medical school. *Nigerian Journal of Clinical Practices*, 17(6): 678-682
- Owoaje, E.T., Uchendu, O.C. and Ige, O.K. (2012). Experiences of mistreatment among medical students in a university in south west Nigeria. *Nigerian Journal of Clinical Practices*, 15(2):214-219.
- Siller, H., Tauber, G., Komlenac, N. and Hochleitner, M. (2017). Gender differences and similarities in medical students' experiences of mistreatment by various groups of perpetrators. *BMC Medical Education*, 17(1): 134.
- Vidanapathirana, M.N., Varothayan, S., Vilochani, D.C., Wangmo, C. and Jayakody, H. (2017). Knowledge and attitudes on gender equality and their correlates among the second year students of University of Colombo. *Ceylon Journal of Medical Sciences*, 54(1):35-43.
- WHO, (2017). Joint United Nations statement on ending discrimination in health care settings. World Health Organization. 2017.

Appendix1: Questionnaire

TITLE: KNOWLEDGE AND EXPERIENCE OF GENDER-BASED DISCRIMINATION AMONG DOCTORS AND MEDICAL STUDENTS IN NIGERIA.

This questionnaire is aimed at painting a statistical picture in order to get an actual idea of gender-based discrimination in our environment. This is all in a bid to better position our healthcare system where no dream or aspiration is shutdown. As such every data collected will be treated as confidential, because this is strictly for research purpose only.

SECTION A: SOCIAL DEMOGRAPHIC CHARACTERISTICS

1. Current Geographical location:(a) North-East [] (b) North-central [] (c) North- west [] (d) South-East [] (e) South-West [] (f) South- South []
2. Gender : (a) Male [] (b) Female [] (c) Transgender []
3. Age in years_____
4. Occupation : (a) Medical doctor [] (b) Medical student []
5. What is your Designation :(a) Consultant [] (b) Resident Doctor [] (c) Medical officer [] (d) House officer [] (e) 6th Year [] (f) 5th Year [] (g) 4th Year [] (h) 3rd Year [] (i) 2nd Year [] (j) 1st Year []
6. If a Doctor, what is your area of specialization \ ongoing Training: (a) Internal Medicine [] (b) surgery [] (c) Pathology [] (d) OB/GYN [] (e) public health [] (f) Pediatrics [] (g) Radiology [] (h) others(specify) _____

SECTION B: KNOWLEDGE ASSESMENT

S/N	QUESTION	AGREE	DISAGREE	NOT SURE
7.	Gender-based discrimination refers to any distinction, exclusion, or restriction made on the basis of socially constructed gender roles and norms that prevents a person from enjoying full human rights.			
8.	Gender-based discrimination can take multiple forms; a) Wage discrimination			
	b) Sexual harassment or unwanted or offensive conduct that creates an			

	intimidating, hostile, or humiliating school or work environment			
9.	Gender-based discrimination can be based on a variety of factors;			
	a) Marital status			
	b) Pregnancy			
	c) Family responsibilities			
10.	d) Age			
	Gender stereotyping can be involved in all forms of gender discrimination as follows:			
	a) Expresses and reinforces women's traditional and inferior-role in the workforce			
	b) Can affect occupational or employment decisions (for example, recruitment, hiring, promotion, termination).			
11.	Gender-based discrimination exist in the medical school			
12.	Gender-based discrimination exist in the medical profession			
13.	Gender-based discrimination can be			
	a) Direct (arising when factors unrelated to merit, ability or potential are used as explicit reasons for			

	restricting participation of a person or group).			
	b) Indirect (an apparently neutral situation, measure, law, criterion, policy, or practices that disproportionately and negatively affects persons from a particular group).			
	c) Overt: hostility or a “discriminating animus” towards an individual			
14.	Gender-based discrimination can be between:			
	a) Individuals of some sex			
	b) Individuals of opposite sex			
15.	a) Do you think males work harder in the medical profession than females?			
	b) Do you think females feel inferior to male contemporaries in the medical profession?			

SECTION C: EXPERIENCE ASSESMEMNT

16. Do you know any of your colleagues that have been harassed in any form? Yes [] no []
- a) If yes in question (XVII) above, what is the gender? Male [] Female []
- b) What type of harassment was it? Physical Abuse [] Verbal Abuse [] Sexual Abuse []
17. Have you experienced any form if discrimination based on your gender? Yea [] No []
18. If yes to Q17, which one have you experienced (tick as many as apply)

denied opportunity (career advancement/leadership position) you are qualified for	
Sexual harassment	
Humiliation /Belittlement	
Threat to fail/give low marks	
Favoritism over your colleague of opposite gender	

19. If yes to Sexual harassment above, what was your relationship with the perpetrator prior to the incident? Formal Cordial Dating Cohabiting
20. Who was/were the perpetrator(s): consultant/lecturer , Registrar , medical student , other health workers , Administration/clerical staff
21. If you chose yes in any option above, was the perpetrator male , female , Both
22. Was the incident reported? yes no
23. If yes, who did you report to? Lecturer/consultant Family Member Fellow Colleague School Authority Human Resources Others (specify)_____
24. Was anything done? Yes No
25. If yes, what was done to the perpetrator? issued a query Suspended dismissed others specify_____

NB: QUESTION (26) IS FOR MEDICAL DOCTORS ONLY

26. Has your gender affected your wages despite adequate qualification? yes No
27. Has Q26 happened to someone you know? Yes No
28. If yes in Q27, what is the gender of the person? Male female