



Attitudes of Patients to Medical Students in the Gynaecology Clinic: A Nigerian Experience

L. C. Ikeako^{1*}, A. Adiuku-Brown², H. U. Ezegwui², A. C. Onuh³ and T. C. Okeke²

¹Department of Obstetrics and Gynaecology, Anambra State University Teaching Hospital, Awka, Nigeria.

²Department of Obstetrics and Gynaecology, University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, Nigeria.

³Department of Radiology, University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author LCI designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors AAB and HUE managed the literature searches, while authors ACO and TCO carried out the statistical analysis. All authors read and approved the final manuscript.

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ABSTRACT

Background: Out-patient clinics are very important in medical students' education.

Aim: This study was undertaken to determine the attitudes of patients to the participation of medical students in their consultation in the gynaecology clinic at the University of Nigeria teaching hospital, Ituku-Ozalla Enugu (UNTH), Southeast Nigeria.

Methods: This was a descriptive cross sectional survey. Self-administered questionnaires were given to participants recruited using a non-probability convenience sampling technique. One hundred and ninety five patients participated in the study.

Results: Most of the patients, 147(75.4%) were willing to allow medical students to participate in their consultation. Seven (3.6%) patients refused the participation of medical students in any form.

*Corresponding author: E-mail: ikeakolawrence@yahoo.com;

Of the 141(72.3%) patients who had previous consultation with medical students present, only 59(41.8%) gave informed consent. Consent was not sought from 63(44.7%) of these patients (P=0.046). In the absence of a doctor, 58.2% and 46.4% of the patients did not accept giving history to male and female students respectively (P=0.021). Sixty nine (35.6%) and 146(75.3%) agreed to examination by male and female students respectively (P=0.031).

Age (P=0.029) and marital status (P=0.017) were identified as independently significantly associated with the acceptance of medical students' participation during clinic visits.

Conclusion: In UNTH Nigeria, many patients are willing to allow medical students' participation in their assessment in the gynaecology clinic although there is a preference for female students. There is need to respect patients autonomy by seeking consent in order to maximize their contribution to medical students' education. There is also the need to create patient awareness on the role of a teaching health facility.

Keywords: Medical students; attitudes; gynaecology; patients; Nigeria.

1. INTRODUCTION

Clinical teaching of medical students is vital to the continuation of medicine [1]. The various bodies regulating medical education set the benchmark of minimum skills a student needs to acquire in the various fields of medicine to qualify. Traditionally, teaching these skills had been at the bedsides of the patients and during clinic consultations. Participation of patients in medical education is crucial in undergraduate medical training [2]. Simulators have been introduced in teaching clinical skills. It has been argued that learning core skills such as pelvic examination on a plastic model is inadequate in medical students' training [3]. While many patients do not refuse the presence of medical students during clinic visits, some decline [4]. Several studies have shown that patients do not like to discuss emotional problems, sexual and family matters in the presence of medical students [2,5]. Patients in gynaecology as well as in genito-urinary clinics are particularly vulnerable as information required of them is often personal and thorough gynaecological or urological examination can be a source of embarrassment [6,7]. Gender of the medical student, religious and cultural issues as well as extent of examination could influence patients' disposition to medical student participation in clinic consultation [8,9]. Mclean et al. [10] reported from a Muslim community that patients would generally refuse gynaecologic and abdominal examination by male students.

Generally, the attitude of patients towards students is positive and several benefits are discernible. In Malawi, participants in a study indicated that students were crucial to their care through advocating on their behalf and acting as a liaison between the patients and staff,

engaging in patients' education and in some cases providing direct care [11].

Arguably a medical student has a right to clinical education, but the patient does not owe an obligation to fulfil this right [12]. Good clinical education of medical students is however reliant upon the willingness of patients to allow their participation in clinic visits. Literature on the attitudes of patients to the participation of medical students in the gynaecology clinic in Nigeria is sparse.

This survey aims to study the attitudes of patients to the participation of medical students in the clinic visits and determine factors that influence them. This should provide useful information to clinical teachers on how to manage training clinics in a way that increases both students' learning opportunities and patients' comfort.

2. PATIENTS AND METHODS

2.1 Study Area

This was a descriptive cross sectional study carried out between 1st August and 31st October 2015 at the gynaecology clinic of the University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu, South-eastern Nigeria.

The hospital which is owned by the government provides both general and specialist services to the people of Enugu State and neighbouring states. Medical students at different levels in their training are posted to the gynaecologic clinic for varying lengths of time. Part of the medical students training involves taking history from the patients and presentation to the consultants. They also learn to examine patients under supervision.

Ethical clearance for the study was obtained from the medical health research ethics committee of the UNTH, Enugu. Informed written consent was obtained from the patients. The hospital's institutional consent for treatment does not include notification to patients that medical students may participate in their care.

2.2 Study Population and Recruitment

Study participants sampling used a non-probability convenience sample to recruit hospital attendees from the gynaecology clinic during the period of study. Patients who were unable to provide consent were excluded from the study. Also excluded were critically ill patients, disoriented patients and younger patients below the age of 15 years. In these young ones, opinion of their guardians could vary depending on the relationship to the patient [13].

The questionnaire for the study was designed by authors after reviewing medical literature on similar studies [9,14]. It was pretested on a sample of 20 patients and minor corrections which included using simpler terms for easier understanding were carried out. Sixty questionnaires were randomly picked and a reliability test was done with a Cronbach's alpha coefficient of 0.72.

The self-administered questionnaire was given to 200 new and old patients recruited for the study after obtaining informed written consent. The questionnaire was administered by two trained research assistants who were undergraduate students of sociology in a nearby tertiary institution. Information gathered included age, marital status, highest educational attainment, parity and previous experience with medical students and outcome of such experiences among others.

2.3 Data Analysis

Data entry and analysis were done using the Statistical Package for Social Sciences (SPSS) for windows version 15.0.1 (Chicago IL, USA). Descriptive statistics such as mean and standard deviation were computed for continuous variables and proportions for nominal characteristics of the participants. Chi Square test was used to compare categorical data. Odds ratio with 95% confidence interval was generated to quantify the degree of association between the variables. Logistic regression model was used to determine variables influencing patients' attitudes

towards medical students' participation while controlling the confounding factors. P values less than 0.05 were considered statistically significant. Results were expressed in tables, bar charts and graph.

3. RESULTS

Of the 200 questionnaires distributed, 195 were properly completed and analysed. The mean age of the participants was 32.8 ± 3.2 years (range 16-70 years).

Table 1 shows the socio demographic characteristics and responses of the participants.

Of the 141 (72.3%) respondents who had seen a doctor with medical students present, one hundred four (73.8%) reported having a good experience while 11 (7.8%) recorded having a bad experience ($P=0.032$). Fifty nine (41.8%) had their consent sought prior to consultations, 63 (44.7%) had not while 19 (13.5%) were not sure ($P=0.046$).

Whereas many participants, 112 (57.4%) thought that consultations with students present took too much time, most of them 158 (81.0%) felt they benefitted from the teachings.

Fifty three (27.2%) respondents felt that consultation in the presence of medical students would reduce the care given to them by their doctor while a majority, 102 (52.3%) did not think so ($P=0.029$). Many of the participants, 134 (68.7%) felt their care would be compromised if they refused to see medical students.

Seven (3.6%) respondents refused the participation of medical students in any form. Most of them 147 (75.4%) agreed to one form of involvement or the other ($P=0.021$). The remaining 41 (21.0%) were neutral. Fig. 1 illustrates the attitude of the respondents to clerking in the presence of a doctor (a) and without a doctor (b). In the presence of a doctor, the attitude of the respondents was similar for both male and female students. In the absence of a doctor more participants tended to disagree for the two sexes; 58.2% and 46.4% disagreed for male and female students respectively ($P=0.021$), while 2.8% and 37.6% agreed for male and females respectively ($P=0.015$).

Fig. 2 illustrates the attitude of the respondents to examinations. Ninety six (51.1%) and 20 (10.8%) did not accept examinations by male and female students respectively ($X^2=19.161$, $P=0.025$) while 69 (35.6%) and 146 (75.3%)

agreed to examination by male and female students respectively ($X^2=16.621$; $P=0.031$). When stratified according to age, it is observed that acceptance to both male and female students during examinations appeared to increase as the age of the patients increased ($P=0.029$), Fig. 3. Educational levels ($P=0.064$) and prior knowledge of presence of medical students ($P=0.054$) did not significantly affect the attitudes of the patients.

Table 1. Socio-demographic characteristics and responses of participants

Variable	N=195 No (%)
Age (years)	
15-24	44(22.6)
25-34	49(25.1)
35-44	58(29.7)
45-54	37(19.0)
55-64	6(3.1)
Marital status	
Married	137(70.3)
Single	47(24.1)
Widow	9(4.6)
Divorced/Separated	2(1.0)
Educational status	
None	2(1.0)
Primary	20(10.3)
Secondary	40(20.5)
Tertiary	133(68.2)
Parity	
0	65(33.4)
1-4	74(37.9)
>5	56(28.7)
Previous experience with medical students	
Good	104(73.8)
Bad	11(7.8)
Not sure	26(18.4)
Consent sought in previous clinic visits (N= 141)	No (%)
Yes	59(41.8)
No	63(44.7)
Not sure	19(13.5)
Aware of presence of medical students (N=195)	No (%)
Yes	151(77.4)
No	44(22.6)
Source of Information (N=151)	No (%)
Relatives	61(40.4)
Friends	47(31.1)
Health workers	29(19.2)
Others	14(9.3)

A higher proportion of married, 137(70.3%) than single 58(29.7%) women were willing to be

involved with medical students, 62.5% versus 51% ($P=0.017$). Similarly, parous women 130(66.6%) were significantly more agreeable to the presence of medical students than nulliparous 65(33.4%) women, 70.2% versus 51.7% ($P=0.025$). In multivariate analysis only age and marital status were independently significantly associated with the acceptance of medical students' participation during clinic visits, (OR (95% CI) 4.7 (1.07-24.73) and OR (95% CI) 5.3 (1.62-26.27) respectively (Table 2).

Table 2. Associations between socio-demographic/reproductive characteristics and participation of medical students

Variable	Respondents (N=195) No (%)	OR (95% CI)
Age (years)		
<25	44(22.6)	
>25	151(77.4)	4.7 (1.07-24.73)
Marital status		
Married	137(70.3)	
Not married	58(29.7)	5.3 (1.62-26.27)
Parity		
Nulliparous	65(33.4)	
Parous	130(66.6)	0.24 (0.16-0.47)
Educational status		
None/Primary	22(11.3)	
Secondary/ Tertiary	173(88.7)	0.11 (0.04-0.29)

Older (>25 years) and married women were 4.7 and 5.3 times respectively more likely to agree with the presence of medical students during clinical consultation.

4. DISCUSSION

As is the experience elsewhere [4,9], most patients in this study (75.4%) were willing to have medical students participate in one form or the other in their care. The Figure agrees with 71% reported from Karachi, Pakistan [15] but lower than over 92% of patients who allowed a medical student's presence during consultation in London [9]. In Australia, Sweeny et al. [5] revealed that 97.5% of the patients would be willing to have a student during consultation. Similarly, in Sweden Haffling et al. [14] reported that 92% of patients were satisfied with their consultation in the presence of medical students.

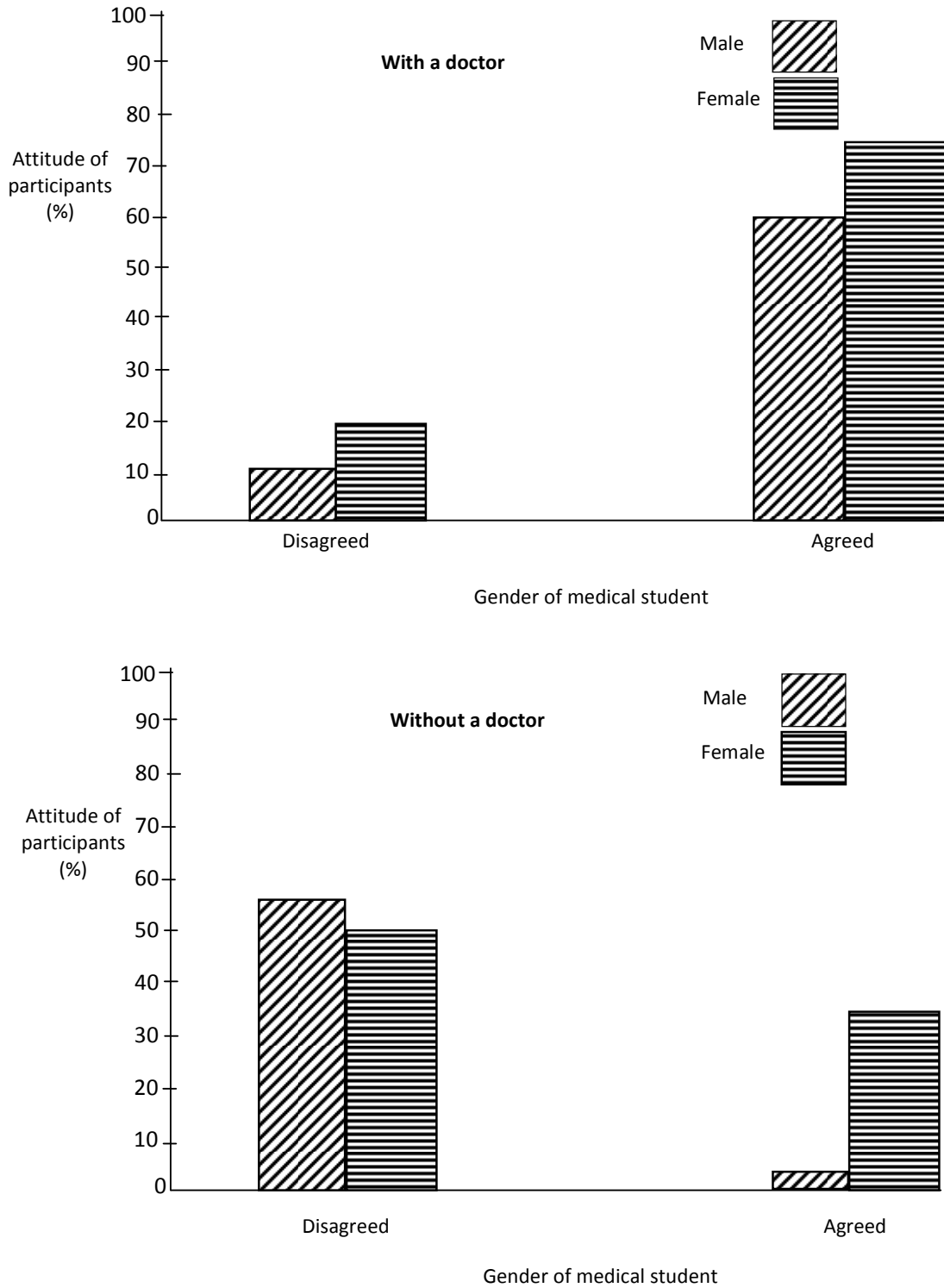


Fig. 1. Attitude to clerking

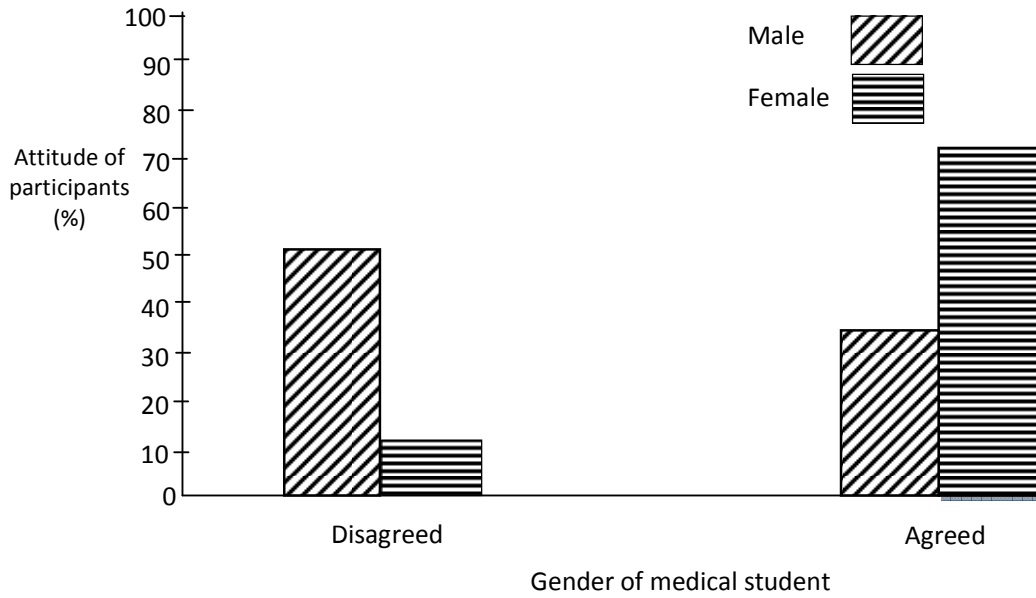


Fig. 2. Attitude to examination

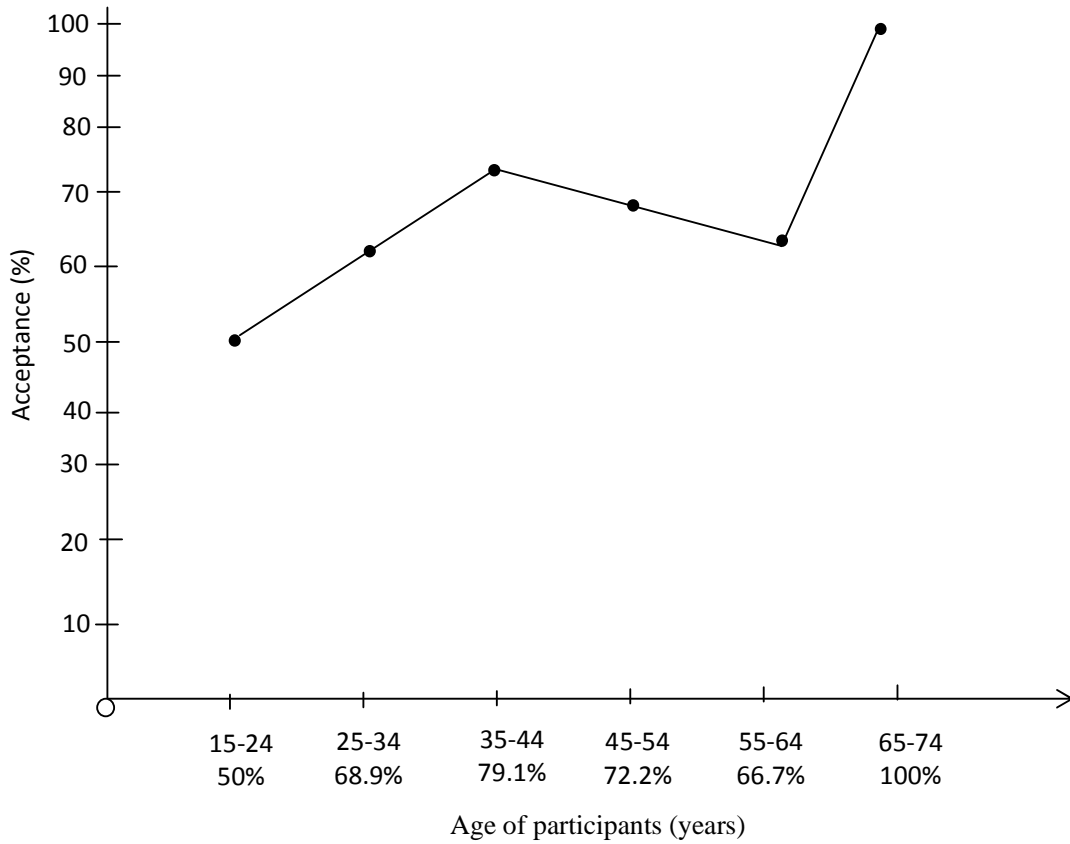


Fig. 3. Level of acceptance by age

In our study 3.6% of respondents refused the participation of medical students in any form. Monnickendam et al. [16] in a study from Israel reported that only 3.2% of patients objected to having students during family practice consultations and 4% thought that presence of students was detrimental to history and physical examination. Ramanayake et al. [13] in their Sri Lankan experience in family practice showed that 15.9% of patients wanted time alone with the doctor. The refusal in our study may be related to the quest for privacy, perceived prolongation of consultation time (57.4%) and the feeling that consultation with medical students reduced care given to them by the doctor (27.2%). This calls for education of patients on the importance of involvement of medical students in their management and for medical education. Fortier et al. [17] found that even when patients decline medical students involvement during gynaecology appointments, education of the patient on the need for medical students to participate made one in six patients change their mind.

Our study revealed the preference for female students during examination. Passaperuma et al. [4] found that patient satisfaction was higher with female than with male students in all specialties. Choudhury et al. [9] observed that for 21% patients in general practice, gender of the student mattered. The preference for female students during examination may be due to the fact that in gynaecology clinics as well as in genito-urinary clinics, intimate examinations that are often sources of embarrassment are invariable [6,7]. The preference for female students during examination may pose handicap to optimal learning for the male students. Some authors have recommended alternative learning options using pelvic models [3].

On the contrary, Molapo et al. [11] reported that patients' unwillingness to be seen by a particular gender of medical students and the reported unwillingness of women in particular to be seen by male students may not be universal. It was suggested that other factors operating concomitantly may influence this disposition. In general younger women, those visiting the clinic for the first time, and women with no children were less likely to accept a student of either sex to take their history or observe their examination [7].

Most of the patients in our study were comfortable if the interaction with the medical students was under the supervision of a doctor.

This is in keeping with the findings elsewhere both on gynaecology patients and patients in other clinics [2,14]. In Damascus, Sayed-Hassan et al. [18] observed that feeling of safety and comfort correlated to the presence of a supervisor. This could be attributed to patients' apprehension on the extent of students' involvement.

Most of the patients in this study (77.4%) had prior knowledge that medical students would be present during their visits to the clinics. Sources of information were largely from relatives (40.4%) and friends (31.1%) of patients. This knowledge did not affect their attitude to students of either sex. Choudhury et al. [9] reported that patients without prior knowledge of students' presence during consultation were consistently more likely to answer a question negatively in general practice. In Sydney Australia, Yang et al. [19] noted that being aware that a student will be present significantly increased the acceptance of examination by students in gynaecology clinics. Molapo et al. [11] reported that 15% of patients in general practice would insist on advance notification.

This study revealed that consent was not sought from 44.7% of participants in their previous consultations. This trend has also been reported [9]. Abdulghani et al. [20] reported that 45.1% of patients believed that they had no right to refuse participation of medical students during consultation in a dermatology clinic. There is need to respect patients' autonomy in order to maximize their contribution to students' education. Mao et al. [21] espoused the concept of patients' autonomy while stressing the need for commensurate patients' citizenship responsibilities and reciprocity to sustain medical education.

Majority (81%) of our patients believed that presence of medical students resulted in better patients' education. Several studies have reported other benefits as a more thorough physical examination, possibility of getting a second opinion and such altruistic values as satisfaction with contribution to students' education [2,9].

In our study, age and marital status were independently significantly associated with acceptance of participation of medical students during consultation. Older women were more receptive to medical students' participation during examination. Choudhury et al. [9] suggested that younger patients group are more

likely to feel vulnerable being examined by 'younger' students.

However Fortier et al. [17] in their review of 367 patients reported that compared to younger patients, older patients' were less willing to be seen by a medical student. Yang et al. [19] found being married or in a committed relationship to significantly affect patients' attitudes but did not find age affecting it significantly. Educational status did not significantly affect our patients' attitudes. In contrast, Sayed-Hassan et al. [18] reported that differences in attitudes were not only related to sex of the patients but also to their educational level and socio economic characteristics.

This study was conducted in a state owned tertiary medical facility where fees are either nominal or partially subsidized. It will be necessary to carry out a comparative assessment of patients' attitudes to the presence of medical students during clinic visits in a private setting where patients pay comprehensively for services and premium is placed on privacy.

The main limitation is that the study used a non-probability convenience sampling technique to recruit participants, thus limiting generalization of results to the whole patient population at UNTH or other similar institution.

5. CONCLUSION

In conclusion, many patients' in UNTH Nigeria are willing to allow medical students' participation in their assessment in the gynaecology clinics though there is a preference for female students. Older and married women were more receptive to the presence of medical students during clinical consultation. There is need to respect patients' autonomy by seeking consent in order to maximize their contribution to students' education.

Finally, there is also the need to create patient awareness on the role of a teaching health facility. The Hospital's institutional consent for treatment should be reviewed to provide platform for patient education.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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QUESTIONNAIRE

This questionnaire is part of a study to discover how you feel about the presence of medical students when seeing the doctor.

Your answer will be treated with utmost confidentiality.

Participation is optional and refusal will not affect your care.

Please tick as appropriate (✓)

1. Age (years).....
2. Marital status: Single Married Widowed Divorced/separated
3. Educational level none/primary secondary tertiary
4. Parity 0 1-4 >5
5. Have you seen a doctor in the presence of medical students previously? Yes No
6. If yes, can you describe your experience? Good Bad Not Sure
7. Was your consent sought before consultation in the presence of medical students?
Yes No Not sure
8. Were you aware that medical students will be present during consultation? Yes
No Not sure
9. If answer to no 8 was yes, please tick source of your information. Friends
relatives health workers
Others (please specify).....
10. Would you feel comfortable telling a medical student about your ailment
 Yes in the presence of a doctor. Yes, if female student
 No, if female student No, if male student Not at all
11. Would you feel comfortable being examined by a medical student?
 Yes, if male student. Yes, if female student
 No, if female student No, if male student. Not at all
12. Please tick two main reasons for your decision on medical students.
 Presence increases consultation time. Benefitted listening to their lectures.
 Care would be reduced if presence is refused. They explain ailment better.
 Provide treatment sometimes. Explain my ailment to the doctor. Need privacy.
Others, (Please specify).....

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