

# Attitudes of dental students to communication skills learning in Obafemi Awolowo University, Ile-Ife, Osun state.

Iyiola Adebayo Matthew, Oji Okorie, Olufemi Ogundipe

Department of Oral and Maxillofacial Surgery, Obafemi Awolowo University

\*Correspondence: Oji Okorie

Email: ojiokorie@gmail.com

## ABSTRACT

**Background:** Effective communication is a key component of dentist-patient interaction and it is a fundamental skill that can improve the effectiveness of patient management. Communication skills training aims to develop communication not only with the patient but also with the family of the patients, colleagues and other health care professional. There is virtually no research identifying dental students' attitude towards communication skills learning in Nigeria.

**Aim:** The study aimed to investigate the attitude of dental student towards communication skill learning in Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.

**Methodology:** A cross-sectional study conducted among 129 undergraduate students (Part 1 – 6) of the Faculty of Dentistry, Obafemi Awolowo University, Ile – Ife. A self-administered questionnaire of the communication skills attitude scale (CSAS) which comprise of both the positive attitude scale (PAS) and negative attitude scale (NAS) was used for the data collection from participants. The data collected was sorted and cleaned to remove any missing values. Inferential statistics analysis was done using IBM SPSS version 26.0.

**Results:** A total of 129 dental undergraduate students completed a structured questionnaire on communication skills learning; The communication skills attitude scale (CSAS). The mean score for the positive attitude scale (PAS) was  $50.98 \pm 5.61$  and for the negative attitude scale (NAS) was  $37.64 \pm 6.56$ . There were no statistically significant differences based on age and study year in attitudes toward learning communication skills. However, the negative attitude scale showed a statistically significant difference between males and females ( $p$ -value=0.001).

**Conclusion:** The study concluded that dental students generally have a positive attitude towards communication skills learning.

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**Keywords:** Leiomyoma, Menorrhagia, Myomectomy, DELSUTH, Nigeria.

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## INTRODUCTION

Communication is the process of expression of knowledge and understanding from one person to another.<sup>1</sup> Communication cuts across all fields of practice including dental practice where it is understandably, a crucial component of dentist-patient interaction which entails a professional flow of information between the two parties. Effective communication between dentists and patients fosters strong relationships and enhances patient satisfaction.<sup>2</sup> Being a patient-centered approach, it allows for proper expression of concerns and empathy which are significant in gaining patients' trusts. With effective communications, patients are more likely to stick with their treatments and follow recommendations for behavior change<sup>1</sup> which helps also to determine -

whether the patient comprehends and accepts dental recommendations. Notably, there is evidence that patient-centered communication improves the kind of patient perception needed for faster relief from pain and better mental well-being.<sup>3</sup>

A good mastery of communication skills helps in carrying out good history, conducting thorough examinations, arriving at accurate diagnoses, generating detailed treatment plans and ensuring proper care.<sup>4</sup> Consequent to the relevance of this subject, some authorities have advocated the inclusion of communication skills learning and training in the undergraduate dental school training curricula which will enhance interactions with patients, coworkers and team members.<sup>5</sup> In 2008, the American Dental Education Association (ADEA) House of Delegates endorsed communication skills as a vital competency for newly graduated general dentists.<sup>6</sup> However, despite the well-documented advantages of strong communication and dental students' expressed desire to enhance these skills, formal communication skill training is still not mandatory in dental colleges.<sup>7</sup>

In order to better prepare dental students for their clinical practice, it is imperative to provide them with access to communication training focused on practical skills. This training will equip them to effectively address patient anxiety, recognize ethical dilemmas, and identify important psychological aspects that will enable more precise diagnoses and the delivery of more impactful treatments enhancing patient safety and overall satisfaction.

Despite a growing body of literature on the attitudes of dental students towards communication skills globally, there remains a significant research gap in understanding the specific attitudes of dental students in Nigeria. While various studies have explored this topic in various international contexts,<sup>8, 9</sup> there is a notable absence of comprehensive research that focuses on Nigerian dental students' perspectives on communication skills within the field of dentistry. Examining their attitudes and comparing them to existing global literature is crucial for tailoring communication skill training programs to meet the unique needs and cultural contexts of dental education in Nigeria.

Examining students' attitudes also, can identify areas for improvement in dental education, helping institutions tailor their curriculum to better prepare future dentists. Additionally, in the Nigerian context, cultural and linguistic diversity may present unique communication challenges. By investigating students' attitudes in this specific context, the research can contribute valuable insights that facilitate the development of culturally sensitive communication training programs, ultimately enhancing the quality of

dental care and patient-provider relationships in Nigeria.

A study by Aina BA and Ogunbiyi OO on the assessment of communication skills in Lagos Nigeria was conducted among Pharmacy students but did not assess attitude of the students towards the arts of communication skills learning.<sup>10</sup>

Among dental students, there has been no previous study assessing their attitude towards communication skills learning in Nigeria. This research gap presents an opportunity to contribute valuable insights to the global body of knowledge on dental education and communication skills, ultimately improving dental curricula and healthcare practices in Nigeria and potentially beyond. Also, since communication skills play a crucial role in the dentist-patient interaction from the first consultation on, it is a subject that deserves consideration during dentists' undergraduate study.

Therefore, this cross-sectional study is aimed to investigate the attitude of dental students on communication skill learning

## METHODOLOGY

The study was a cross-sectional descriptive survey conducted amongst the Part 1-6 students of the Faculty of Dentistry of Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria. Ethical approval for the study was obtained from the Health Research Ethics Committee of the Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Osun State, with protocol number IPH/OAU/12/2049. The following variables were obtained; gender, age and CSAS scores.

**SAMPLE AND SAMPLING TECHNIQUE:** The purposive sampling technique was used to select the samples. All students who appeared on Dean's register during the study period from January 2023 to April 2023 including part 1-6 were eligible to participate. The questionnaires were sent through class representatives to respondents during classes and clinical hours depending on the class level of the respondents. A total of 158 students were selected from Part 1 to part 6 which was the total number of students in the faculty of dentistry according to the dean's record (part 1=48, part 2=24, part 3=4, part 4=35, part 5=19, part 6=28).

## INCLUSION AND EXCLUSION CRITERIA

Participants included consenting part 1 to part 6 Dental students of the Obafemi Awolowo University, Ile-Ife while students from other faculties were excluded

## RESEARCH INSTRUMENT

The instrument used was a modified validated questionnaire; [Link.docx](#) The Communication Skills Attitude Scale (CSAS).<sup>11</sup>

The first section of the questionnaire sought information about socio-demographic characteristics of participants.

These included questions on age, gender, class, ethnicity, and religion.

The CSAS consisted of 26 items framed within 2 subscales which were the Positive Attitude Scale (PAS) and Negative Attitude Scale (NAS). Each subscale contained 13 items. The PAS items (4,5,7,9,10,12,14,16,18,21,22,23,25) and NAS items (1,2,3,6,8,11,13,15,17,19,20,24,26) were scored using a 5-point Likert Scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).<sup>11</sup> The CSAS had undergone content and face validation, followed by psychometric analysis using principal component analysis to assess construct validity.<sup>11</sup> Internal consistency was evaluated using Cronbach alpha which demonstrated good internal consistency for the PAS ( $\alpha = 0.873$ ) and the NAS ( $\alpha = 0.805$ ). The test-retest reliability as measured by the intraclass correlation coefficient (ICC) was 0.646 ( $p < 0.001$ ) for the PAS and 0.771 ( $p < 0.001$ ) for the NAS.<sup>11</sup> The scores from the Positive Attitude Scale (PAS) were added for each respondent with a maximum possible score of 65 (13 x 5). The same was done for the Negative Attitude Scale (NAS). The mean score for the PAS and NAS scores of all participants were calculated and a high PAS score represented a positive attitude towards communication skills learning while a high NAS score represented a negative attitude towards communication skills learning. Good attitude towards communication skills learning was defined by PAS of  $\geq 52$  (good positive attitude) and NAS  $\leq 26$  (low negative attitude); while Poor attitude towards communication skills learning was defined by a PAS of  $\leq 39$  (low PAS) and a NAS of  $\geq 39$  (high NAS)

#### ADMINISTRATION OF INSTRUMENT AND DATA COLLECTION

The copies of the self-administered questionnaire titled; The Communication Skills Attitude Scale (CSAS) were sent to the respondent by their class representatives. The filled copies were collected from the class representatives for further analysis.

#### METHOD OF DATA ANALYSIS

Before analysis, the data were entered into excel spreadsheet. The statistical analysis was carried out using IBM SPSS (version 26.0). Descriptive analysis was conducted using a wide variety of measures of location (mean, median, mode) and dispersion (standard deviation) to describe the socio-demographic characteristics of respondents.

Inferential statistics using t-tests (for dichotomous variables) and one-way ANOVA (for non-dichotomous variables) were done to assess the relationship between Participants' gender, age, study level and attitudes of dental students to communication skills learning. A p-

value of  $< 0.05$  will be considered statistically significant in all cases.

## RESULTS

### SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

**Table 1.** Socio-demographic characteristics of Respondents (n=129)

Characteristics		Frequency (n=129)	Percentage (%=100)
Age	15-20 years	28	21.7
	21- 29 years	99	76.7
	30 – 31 years	2	1.6
Gender	Male	69	53.5
	Female	60	46.5
Study Level	Part1	31	24.0
	Part 2	23	17.8
	Part 3	3	2.3
	Part 4	26	20.2
	Part 5	19	14.7
	Part 6	27	20.9
Religion	Christianity	110	85.3
	Islam	17	13.2
	Traditional	1	.8
	Others	1	.8
Ethnicity	Yoruba	114	88.4
	Igbo	8	6.2
	Hausa	0	0
	Others*	7	5.4

\* Delta, Edo, Calabar

Table 1 shows the socio-demographic characteristics of the respondents. Majority of the respondents 99 (76.7%) were in the age range 21-29 years, 69 (53.5%) were male students and 60 (46.5%) were female, respondents in study levels Part 1, 31 (24.0%) and Part 6, 27 (20.9%) constituted the majority of the respondents. Majority of the respondents 110 (85.3%) were Christians. 114 (88.4%) were of Yoruba ethnicity.

### ATTITUDE OF DENTAL STUDENTS TOWARDS COMMUNICATION SKILLS LEARNING.

**Table 2:** The attitude of dental students to communication skills learning.

Mean scores (SD)	
Positive attitude scale (PAS)	50.98+/- (5.61)
Negative attitude scale (NAS)	37.64 (6.56)

Table 2 shows the attitude of dental students to communication skills learning based on mean scores of the positive attitude scale (PAS) and the negative attitude scale (NAS). The mean score for the PAS is 50.98 ± 5.61 (Out of 65) and the mean score for the NAS is 37.64 ± 6.56. (Out of 65). This implies that most dental students have a positive attitude towards communication skills learning.

### RELATIONSHIP BETWEEN STUDENTS' CHARACTERISTICS AND ATTITUDE TO COMMUNICATION SKILLS LEARNING.

Table 3: Comparing attitude to communication skill learning based on student's socio-demographic characteristics.

Characteristics		PAS	P Value	NAS	P Value
Gender	Male	51.70 ± 5.15	0.119	35.20 ± 6.19	0.000*
	Female	50.15 ± 6.03		40.43 ± 5.86	
Age	Below 20 years	49.54 ± 5.28	0.154	38.46 ± 4.76	0.752
	21 – 30 years	51.28 ± 5.67		37.41 ± 7.04	
	31 years and above	56.00 ± 0.00		37.00 ± 4.24	
Study Level	Pre-clinicals	50.82 ± 5.46	0.785	36.81 ± 6.37	0.203
	Clinicals	51.10 ± 5.75		38.29 ± 6.68	

Table 3 shows the relationship between students' characteristics and attitude to communication skills learning based on their mean PAS scores and NAS scores. The negative attitude scale showed a statistically significant difference between males and females (P-Value=0.000). There is an increase in the mean PAS scores with increasing age and a decrease in the mean NAS score with increasing age, although both scales were not statistically significant with a P-value of 0.154 and 0.752. Students in the clinical years (Part 4 to 6) had more positive attitude (52.10 ± 5.75) to communication skills learning compared to the students in the pre-clinical years (50.82 ± 5.46), while the pre-clinical

students had less negative attitude (36.81 ± 6.37) to communication skills learning compared to the clinical students (38.29 ± 6.68), although both findings were also not statistically significant with p-values of 0.785 and 0.203 respectively.

Table 4. Relationship between Dental student and Attitude towards communication skills learning

		Students Attitude towards communication skills learning		P-value
		-ve	+ve	
Dental students categorized	Preclinical Level (1-3)	34 50.7%	23 37.1%	1 0.156
	Clinical Level (4-6)	33 49.3%	39 62.9%	
Total		67 100%	62 100%	

Table 4 shows the relationship between dental students' attitude towards communication skills learning. Thirty-nine (62.9%) of the clinical students, that is part 4 to 6 dental students have positive attitude towards communication skills learning. The PAS score is not statistically significant (p-value = 0.156).

#### Descriptives

Gender	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
Negative Attitude	67	1.37	.487	.060	1.25	1.49	1
Positive Attitude	62	1.56	.500	.063	1.44	1.69	1
Total	129	1.47	.501	.044	1.38	1.55	1

#### ANOVA

Gender					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.179	1	1.179	4.845	.030
Within Groups	30.914	127	.243		
Total	32.093	128			

As shown in the ANOVA table (Table 5), the value of F is 4.845, which reaches significance with a p-value of 0.030 (which is less than the 0.05 alpha level). This means there is a statistically significant difference

between the attitude of male and female dental students on communication skill learning.

## DISCUSSION

Results from this study showed that dental students of Obafemi Awolowo University, Ile -Ife generally have a positive attitude towards communication skills learning, recognizing the importance of good communication skills in patient's assessment and overall management. This is similar to a study conducted by Hussein among 244 dental students which reported a more positive attitude towards communication skills learning based on their mean positive attitude scale and mean negative attitude scale scores.<sup>12</sup> It is also similar to Richa et al., in a 2016 study where they reported scores of  $50.44 \pm 5.83$  and  $29.72 \pm 4.32$  for the PAS and NAS respectively.<sup>9</sup> Additionally, Laurence observed that there was a favorable association between students' attitudes towards learning communication skills but a negative correlation with the actual acquisition of these skills.<sup>7</sup>

This current study showed that males had a more positive attitude towards communication skill learning compared to females which was evidenced by a higher mean PAS score, although this finding was not statistically significant. This is in accordance with the results of a study conducted among dental students in Cairo University in Egypt which found no statistically significant relationship between gender and positive attitudes towards learning communication skills.<sup>12</sup> However, this was in contrast to the earlier study conducted by Atteya et al. in 2017 where they found that female interns had higher PAS scores than male interns.<sup>13</sup> This contrast in finding was attributed to the possible reason that the art of communication comes naturally from females and therefore female students would be more likely to appreciate communication skills learning. Aina BA and Ogunbiyi OO also observed that female pharmacy students had better communication skills than their male counterparts.<sup>10</sup> Also in Cologne, Germany, interaction effects were found for the factors like gender and section of study: female students in the clinical section of their study who participated in the longitudinal curriculum reported higher positive attitudes and lower negative attitudes compared to female students in the preclinical section of study.<sup>8</sup>

For the negative attitude scale, females had more negative attitude towards communication skills learning which was statistically significant (P-Value=0.001). This finding may be due to a perception by the female dental students that since females are inherently good communicators so they likely do not view communication learning as a skill they need to acquire.<sup>14, 15</sup>

This study also showed that clinical students had more positive attitude compared to their pre-clinical counterparts, although this finding was not statistically significant (p-value=0.785). This finding is also in line with the study conducted by Iqbal *et al* among medical and dental students to evaluate their attitudes toward communication skills learning in early years of their medical education.<sup>16</sup> Similar study carried out among Dental students in undergraduate and postgraduate level in Bengaluru city, India, also reported similar findings in which senior students had high positive attitude toward communication skills than junior students.<sup>9</sup> The more positive attitude of the clinical students could be attributed to their exposure to patients during clinical rotations; the clinical students have more hands-on patient interactions than the pre-clinical students. This practical experience allows them to see the direct impact of effective communication on patient care. This may help them develop a better understanding of how communication skills can lead to improved treatment adherence, patient satisfaction, and successful outcomes. The clinical students also encounter a wider range of patient personalities, including challenging or difficult cases. These experiences can highlight the importance of advanced communication skills in managing complex patient interactions. Also, clinical students may be required to demonstrate competence in communication skills as part of their clinical competency assessments. Meeting these requirements can motivate students to develop a positive attitude towards communication skills.

It has been reported that exposure to both learning and practice have an impact on improving learning of communication skills.<sup>8</sup> This current study showed that the clinical students who had been exposed to more more interactions with patients had a more negative attitude towards communication skills learning compared to the pre-clinical students. This is similar to a study by Lichtenstein et al who discovered that Dental students who were exposed to communication skills learning curriculum had significantly lower negative attitudes towards learning communication skills than students who did not attend such courses.<sup>8</sup> However, The possible reason for this negative attitude among clinical students may include students' perception of communication skills training as an additional burden to an already increased workload and responsibilities during the clinical year. This heightened stress could lead to a more negative attitude towards any supplementary coursework, including communication skills training. They also may develop a more negative attitude due to this discrepancy between their expectations and the reality of patient interactions. Similarly, some other studies have reported that medical students tend to develop more negative

attitudes towards patient-centeredness and communication as they progress through medical school.<sup>17, 18</sup>

There was no significant contribution of age towards the attitude of communication learning skills whether positively or negatively.

## CONCLUSION

Dental students generally have positive attitudes towards learning communication skills. While females have a more negative attitude towards communication learning skills, Clinical students have better attitude than preclinical students.

## LIMITATIONS

1. The limitation to this research was that it was based on students' attitudes in one institution and might not be a true representation of the students' attitudes in Nigeria.
2. There is no prior exposure of students to communication skills learning courses which might have an impact on the outcome of the study.

## RECOMMENDATIONS

1. Communication skills learning should be made more interesting to encourage both female and clinical dental students' participation.
2. Further studies should be conducted in other dental schools in Nigeria that would facilitate a better understanding of the general attitudes of dental students to communication skills learning in Nigeria.

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