

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/357361559>

# Addressing Inclusiveness in Tertiary Co-education: Attitude of Undergraduate and Academic Staff Towards Students with Disabilities in a South-West Nigerian University

Article in *International Journal of Disability Development and Education* · December 2021

DOI: 10.1080/1034912X.2021.2016658

CITATIONS

2

READS

175

7 authors, including:



**Macellina Yinyinade Ijadunola**

Obafemi Awolowo University

55 PUBLICATIONS 573 CITATIONS

[SEE PROFILE](#)



**Patrick Ayodeji Akinyemi**

Paediatric Adolescent Treatment Africa

31 PUBLICATIONS 99 CITATIONS

[SEE PROFILE](#)



**Olayinka Goodman**

Lagos State University

40 PUBLICATIONS 418 CITATIONS

[SEE PROFILE](#)



**Abdurrahman Ogundiran**

3 PUBLICATIONS 4 CITATIONS

[SEE PROFILE](#)



## Addressing Inclusiveness in Tertiary Co-education: Attitude of Undergraduate and Academic Staff Towards Students with Disabilities in a South-West Nigerian University

Macellina Ijadunola, Patrick Akinyemi, Oluwapelumi Olowookere, Oluwatosin Olotu, Olayinka Goodman, Abdurrahman Ogundiran & Kayode Ijadunola

To cite this article: Macellina Ijadunola, Patrick Akinyemi, Oluwapelumi Olowookere, Oluwatosin Olotu, Olayinka Goodman, Abdurrahman Ogundiran & Kayode Ijadunola (2021): Addressing Inclusiveness in Tertiary Co-education: Attitude of Undergraduate and Academic Staff Towards Students with Disabilities in a South-West Nigerian University, International Journal of Disability, Development and Education, DOI: [10.1080/1034912X.2021.2016658](https://doi.org/10.1080/1034912X.2021.2016658)

To link to this article: <https://doi.org/10.1080/1034912X.2021.2016658>



Published online: 27 Dec 2021.



Submit your article to this journal [↗](#)



Article views: 48





View related articles [↗](#)



View Crossmark data [↗](#)



## Addressing Inclusiveness in Tertiary Co-education: Attitude of Undergraduate and Academic Staff Towards Students with Disabilities in a South-West Nigerian University

Macellina Ijadunola <sup>a,b</sup>, Patrick Akinyemi <sup>a</sup>, Oluwapelumi Olowookere<sup>a</sup>, Oluwatosin Olotu<sup>a</sup>, Olayinka Goodman<sup>b</sup>, Abdurrahman Ogundiran<sup>a</sup> and Kayode Ijadunola<sup>a</sup>

<sup>a</sup>Department of Community Health, Obafemi Awolowo University, Ile-Ife, Nigeria; <sup>b</sup>Department of Community Health and Primary Health Care, Lagos State University College of Medicine Ringgold Standard Institution, Ikeja, Nigeria

### ABSTRACT

People living with disabilities constitute a large proportion of Nigeria's population and there is a need for assessment of attitudes of members of the society towards these people with disabilities. This study was conducted in a Nigerian University using a descriptive cross-sectional study design and 339 undergraduate students and 24 academic staff were proportionally allocated to selected departments of the university. Six out of ten undergraduates (60.77%) and 50% of academic staff had positive attitudes towards students with disabilities. Being female, knowing someone with a disability and positive perception were significant factors associated with having a positive attitude among students. Shorter duration in academia and positive perception of living with disabilities were significant factors associated with having positive attitude towards students with disabilities among staff. A significant proportion of students and staff still have poor attitudes towards students with disabilities, 39.23% and 50.0%, respectively. There is a need for staff sensitisation and introduction of disability studies to the curriculum of undergraduate students to educate them. It is hoped that these measures will improve the attitude of students and academics with negative attitudes and serve as reinforcement for those with positive attitudes.

### KEYWORDS

Education; lectures; persons with disability; students with disability; university

## Introduction

Disability is a challenge that results from a complex interaction between the body's function or malfunction and the society individual lives (World Health organisation, 2019). The societal interaction with various forms of impairment and activity limitation varies across various geographical and socio-cultural settings. This may lead to variations in perceptions of disabilities across the world. Globally, the prevalence of disabilities was 15% in 2019 representing approximately one billion people with disabilities (World Bank, 2019). A larger proportion of the burden of people with disabilities emanates from

developing countries (World Bank, 2019). It was estimated that 1 out of 10 Africans live with disabilities and it could be as high as 2 out of 10 in the poorer countries of the continents (Disabled World, 2018). The 2006 population census in Nigeria put the proportion of people with disabilities at 2.32% of the country's population of 142.6 million. The World Health Organisation's World Report on Disability for 2011, however, reported that about 15% of Nigeria's population live with disabilities (Anietie Ewang, 2019; World Health organisation, 2011).

Despite previous studies reporting positive attitudes towards people with disabilities, they still experience challenges in form of discrimination and bias (Etieyibo & Omiegbe, 2016; Olorukooba et al., 2020; Vincent-Onabajo & Malgwi, 2015). These challenges have been observed to have adverse effects on their quality of life. People with disabilities are at risk of adverse events in their experience of discrimination in access to social services, such as healthcare education, and employment (World Bank, 2019; World Health organisation, 2011). They are equally vulnerable to discrimination in the course of their daily interactions with people in the society.

Common factors influencing how society relates with people with disabilities include culture, religious beliefs especially in relation to the cause of their disabilities, and level of education of the people in the society who interact with people with disabilities (Etieyibo & Omiegbe, 2016) (Khan & Khan, 2017). Other factors that have been identified from previous studies in the university environment include gender, having relatives living with disabilities, stigmatisation associated with a particular type of disability, knowledge of disability, or training on caring for people living with disabilities (Ajuwon, Lesi Afolabi, Odukoya, & Melia, 2015; ND; Olaleye et al., 2012), (Uysal, Albayrak, Koculu, Kan, & Aydin, 2014). Previous studies also observed that a positive attitude towards people with disabilities was associated with increasing age (Agyemang & Delle, 2013; Uysal et al., 2014).

Two studies that have assessed the interaction between students without disabilities, academic staff in the universities, and students with disabilities had varying outcomes. The study conducted by (Gibbons, Cihak, Mynatt, & Wilhoit, 2015) showed that majority of the undergraduate students interviewed in a university were willing to learn and interact with students living with autism and other intellectual disabilities. Also, a few academic staff held a favourable view of the inclusion of students with disabilities in their academic activities. The common factors attributed to their view were discomfort it may cause for other students and the need for more instruction time. However, the qualitative study conducted by (Kendall, 2018) which assessed lecturers' views on the provision of support for students living with disabilities showed that all participants were committed to the provision of support for students with disabilities. A common identified factor with a positive influence on attitude of staff towards students with disabilities was staff training in special education. Teachers trained in special education were observed to have positive attitudes towards inclusive education (Lister, Pearson, Collins, & Davies, 2020; Saloviita, 2020). Also, long years of experience in academia was associated with poor attitude towards students with disabilities, while female gender and sense of self-efficacy in providing good-quality teaching to both students with disabilities and student without disabilities were positively associated with attitudes towards inclusive education (Butakor, Ampadu, & Suleiman, 2020; Emmers, Baeyens, & Petry, 2020; Saloviita, 2020). Frequency of contact with students with disabilities among teachers has been identified as a significant

factor affecting their attitudes towards students with disabilities. A study conducted in Kaduna State, North-West Nigeria showed that higher frequency of contact was associated with positive attitudes towards students with disabilities (Olorukooba et al., 2020).

Previous studies have shown that students with disabilities are more likely to have poor performance especially when the academic environment is not supportive enough to meet their special needs (Oluremi & Olubukola, 2013), and are less likely to adjust to higher education system without appropriate assistive devices and support (Ijadunola et al., 2018; Lipka et al., 2020). In addition to this factor, females with disabilities are more likely to be affected than males with disabilities (Wasielewski, 2016). This thus underscores the importance of this study, aimed at providing further insight into the needs of students with disabilities in their quest of achieving inclusion in tertiary education.

Several measures have been taken towards ensuring the inclusion of people with disabilities both at the global and national levels. These include the enactment of the Disability Right Law in Nigeria tagged Discrimination Against Persons with Disabilities (PWD) (Prohibition) Act, 2018 (Arimoro, 2019; Policy and Legal Advocacy Center, 2019). There was also establishment of associations such as the Joint National Association of Persons with Disability in 1992, aimed at promoting the rights and welfare of people with disabilities. There is paucity of documentation on the effect of these efforts on the attitude of university communities towards people with disabilities.

This study aimed to assess the attitude of undergraduate students and academic staff in a university community towards students with disabilities. Undergraduate students and academic staff were chosen for this study because they constitute a larger proportion of the university community population and they have more direct contact with students with disabilities. Also due to their level of education, the study population is more likely to be knowledgeable about the needs of people with disabilities and global efforts aimed at ensuring societal inclusion of people with disabilities. The study is timed because the university currently has no policy on students with disabilities; however, there are special considerations for their accommodation and access to newly constructed buildings on campus in line with the national policy for the disabled. It is hoped that the findings from this study will serve as an advocacy tool to authority of the university on the need for policy to ensure inclusion of students with disabilities.

## Materials and Methods

This study was conducted at Obafemi Awolowo University (OAU), Ile-Ife, South-West Nigeria. The university is one of the leading public universities in Nigeria with a student population of more than 30,000 and a staff strength of more than 5000 (Obafemi Awolowo University, 2020). The common types of disabilities among the students on campus are motor function disabilities, blindness, hard of hearing, dyslexia, and other neurological conditions. The definition of students with disabilities in this study focused on motor function disabilities, blindness, hard of hearing, and learning disabilities. The school provides limited accommodation for students and staff on campus while majority of the students reside off-campus. There are special accommodation considerations for students with disabilities who request to live on-campus. The university, however, has suboptimal assistive facilities and support services for students with disabilities such as access to note-takers or differential time for completion of expected academic tasks.

Department of Student Affairs is the unit saddled with the responsibility of ensuring the welfare of students. There is, however, no special desk set aside for students with disabilities.

### ***Study Design and Study Population***

This was a descriptive cross-sectional study among undergraduate students in the penultimate and final year of study, and academic staff in various departments of the university. Academic staff and undergraduate students with disabilities, and part-time undergraduate students were excluded.

### ***Sample Size and Sampling Technique***

A sample size of 347 was calculated using the sample size formula for a single proportion.

Multistage sampling technique was employed in selecting the participants. In the first stage, 13 faculties in OAU were grouped into four clusters based on their geographic distribution consisting of 4, 3, 3, and 3 faculties. In the second stage, one faculty was selected from each cluster using a simple random sampling technique using the ballot method. Faculties of Basic Medical Sciences, Education, Agriculture, and Administration were selected. In the third stage, two departments were selected from each of the four faculties by simple random sampling technique using balloting method. The questionnaires were distributed to the selected department using proportional allocation. In the fourth stage, students in their penultimate and final years were purposely selected. Questionnaires were distributed to students in the aforementioned years of education. Academic staff were consecutively recruited until 24 staff were enrolled.

### ***Data Collection***

Data were collected using self-administered questionnaires. Separate questionnaires were designed for the academic staff and undergraduate students. The questionnaire for students comprised of three sections: Section A included questions on the Socio-demographic data and relationship with students with disabilities, while section B comprised of questions that assessed their attitude towards students with disabilities. Section B was rated on a 5-point Likert scale where 1 represents 'strongly disagree' and 5 represents "strongly agree. The questionnaire for academic staff also comprised three sections: Section A for the students comprise 11 questions and section A for the academic staff comprise 12 questions which include questions on the socio-demographic data and pattern of relationship with students with disabilities. Two questions assessed the relationship of undergraduate students and their colleagues with disabilities; awareness of any students with disabilities and mode of relationships such as being a colleague, roommate, or friends. One question assessed the relationship between academic staff and students with disabilities; if the staff has ever taught students with disabilities. Section B comprised of 20 questions that assessed the attitude of respondents. Section B was rated on a 5-point Likert scale, where 1 represents 'strongly disagree' and 5 represents "strongly agree. The questionnaires were developed after reviews of previous research on academics and undergraduates' attitudes towards students with disabilities and prior

published instruments on the subject. Section B for both the academics and undergraduate students were mainly adapted from the attitude towards disabled people scale (ATDP-O) (Yuker, 1970). The questions in the original ATDP-O tools were adapted in the context of the academic environment of students with disabilities to suit the population under focus. Questions on ATDP-O that relate to the job and parental factors were excluded from the adapted questionnaire.

Section C assessed the perception of respondents (academic staff and undergraduate students) about students with disabilities. The perception was assessed through summation of response to eight questions that border on perceptions of living with disabilities, with 5-point Likert scale response. Respondents that score below the median value of maximum attainable score were classified as having negative perception while those that scored median value of the maximum attainable score and above were classified as having positive perceptions about students with disabilities.

### **Data Analysis**

Data were analysed using SPSS version 25 for Windows (IBM SPSS Inc., Chicago, USA). All responses were coded appropriately and the negatively worded questions were reverse coded. Eight questionnaires were excluded from the analysis because they were incomplete. The alternate scoring method for ATDP scale was used for scoring section B, where +1 was scored for positive responses and -1 for negative responses. Strongly disagree, disagree and neutral were coded as +1 whereas, agree and strongly agree were coded as -1. All variables carry the same weight. These plus and minus responses were added algebraically and a constant of 20 was added to yield the final value.

Respondents who scored below the median were considered to have a negative attitude while those who scored median value and above were considered as having positive attitude. The median of the ATDP score was calculated for both the undergraduates and the academic staff. This value was used in separating the respondents into those with positive and negative attitudes towards students with disabilities. Univariate analysis using frequencies and proportions were used to summarise the sociodemographic data and response to questions used for assessing the respondents' attitude towards people with disabilities. Bivariate analysis using contingency tables was used to assess the relationship between the demographic factors and attitude towards students living with disabilities. Binary logistic regression was also conducted to assess the determinants of attitudes of undergraduate respondents towards students with disabilities. A p-value of <0.05 was considered to be statistically significant.

### **Ethical Approval And Consent to Participate**

Ethical approval was obtained from the Research and Ethics committee of the Institute of Public Health (IPH), Obafemi Awolowo University, Ile-Ife. Verbal consent was sought from each respondent after adequate explanation of the objectives of the study. Confidentiality and data security were assured. Participation was made voluntary as each participant was at liberty to opt-out at any point in the study.

## Results

### *Sociodemographic Characteristics of Undergraduate Students and Academic Staff*

Three hundred and thirty-nine (339) undergraduate respondents completed the survey with male and female gender almost equally represented, 50.1% and 49.9%, respectively. This gave a response rate of 97.7% based on the calculated sample size and the total number of questionnaires administered. Almost equal responses were obtained from penultimate and final-year class, 49.9% and 50.1%. Most of the undergraduate students, 216 (63.7%) were in the age range of 21–25. This was followed by the age group of 16–20 and 26–30, (84, 24.8%) and (39, 11.5%) respectively. Almost all the respondents were single, 326 (96.2%) and majority of the students were Christians, 289 (85.3%).

Twenty-four members of academic staff also participated in the survey comprising 14 (58.3%) male and 10 (41.7%) females. More than 90% of the respondents (91.7%) in this group were Christians and married. Lecturers from the faculty of Education accounted for more than one-third of the respondents, while both faculty of Basic Medical Sciences and Law had the least representation, 4.2% respectively. The year of experience in academic settings was less than 10 years for more than half of the academic staff (58.3%) who participated in the study. This was followed by those with years of experience in academic settings that were in the range of 10–19 years, 29.2%.

### *Pattern of Interaction between Undergraduate Students and Students with Disabilities*

Most of the undergraduate respondents, 230 (67.8%), had interacted with at least one student living with a disability while majority of the lecturers, 19 (79.2%), had taught at least, a student living with a disability in the course of their career as lecturers. Interaction with students with disabilities as a roommate was the most common form of interaction, 82 (35.7%), followed by interacting with them as colleagues and acquaintance, 56 (35.7%) and 52 (22.6%), respectively. Details are shown in [Table 1](#).

**Table 1.** Pattern of interaction of undergraduate and academic staff with students with disability.

Variable	Frequency	Percentage (%)
<b>Interaction with SWD</b>	<b>(N = 339)</b>	67.8
Undergraduates who interact with SWD	230	32.2
Undergraduates who do not interact with SWD.	109	
<b>Main interaction modalities</b>	<b>(N = 230)</b>	24.3
Undergraduates with learning experience with SWD	56	35.7
Undergraduates who live as roommate with SWD	82	17.4
Undergraduates who know SWD as friend	40	22.6
Undergraduates who know SWD as acquaintance	52	
<b>Experience in Teaching SWD**</b>	<b>(N = 24)</b>	20.8
Academics that have not taught SWD before	5	79.2
Academics that have taught SWD before	19	

**Table 2.** Gender differences in the perception and attitude towards SWD among undergraduate students.

Variables	Gender		Statistics
	Male N (%)	Female N (%)	
Perception	109 (52.7)	98 (47.3)	$\chi^2 = 0.116$
Negative	67 (50.8)	65 (49.2)	df = 1
Positive			p = 0.733
Attitude towards SWD	78 (58.6)	55 (41.4)	$\chi^2 = 3.970$
Negative	98 (47.6)	108 (52.4)	df = 1
Positive			p = 0.046

### **Gender Difference in Perception and Attitudes of Undergraduate Students Towards Students with Disabilities**

Most of the students, 206 (60.8%), had positive attitudes towards students with disabilities. There was a significant association between gender and attitude towards students with disabilities ( $p = 0.046$ ). It was observed that a higher proportion of female students (66.3%) compared to males (55.7%) had positive attitudes towards students with disabilities. The proportion of male, 67 (50.8%) and female, 65 (49.2%) undergraduate students that had positive perceptions about students with disabilities were almost equal. There was no significant difference between gender and perception of students with disabilities,  $p = 0.733$ . Details are shown in [table 2](#).

### **Association between Respondents' Characteristics and Attitudes Towards Students with Disabilities**

Though there was no significant association between age and attitude of students towards students with disabilities, it was observed that the students in the age group 26–30 years had the highest proportion of those with positive attitude. Details of these associations are shown in [Table 3](#) below. Previous interaction with SWD had a significant association with the attitude towards SWD, ( $p = 0.015$ ). The proportion of undergraduate respondents with positive attitudes that had interaction with SWD, 150 (65.2%), was significantly higher than the proportion of respondents who had never had interaction with SWD, 56 (51.4%). The perception of respondents was also a significant factor affecting the attitude of respondents ( $p < 0.001$ ). Majority of those with positive perception about SWD, 124 (93.9%) also had positive attitudes towards SWD; while most of those with negative perceptions, 125 (60.4%) also had poor attitudes. Details of these associations are shown in [table 3](#) below. The two major religions, Christianity and Islam, had almost equal proportions of respondents with positive attitudes. There was no significant association between departments of the respondents or their year of study with attitude towards students with disabilities.

Assessment of association between socio-demographic variables of members of the academic staff and their attitude towards students with disabilities revealed no significant association between their attitude and variables such as gender ( $p = 0.796$ ), age (0.928), and teaching relationship with students living with disabilities ( $p = 0.446$ ). There was, however, a significant association between academic staff perception of disability and their attitudes towards SWDs ( $p = 0.009$ ). The average ATDP score among academic staff

**Table 3.** Association between respondent characteristics and attitudes of undergraduates towards SWD.

Variable		ATDP SCORE Median (IQR)	Statistics
Students	<b>Sex</b>	16.0 (8.0)	U = 11,990.0
	Male	18.0 (10.0)	p = 0.009
	Female		
	<b>Age(year)</b>	16.0 (8.0)	H = 2.780
	16–20	16.0 (10.0)	df = 2
	21–25	20.0 (10.0)	p = 0.249
	26–30		
	Year of study	16.0 (10.0)	U = 13,529.0
	Penultimate year	16.0 (10.0)	p = 0.352
	Final year		
	Undergraduates who know SWD	16.0 (8.0)	U = 10,470.0
	Undergraduates who don't know any SWD.	18.0 (11.0)	p = 0.014
	Perception about SWD	14.0 (6.0)	U = 3029.0
<b>Negative</b>	23.0 (8.0)	p < 0.001	
<b>Positive</b>			
Staff	<b>Sex</b>	19.0 (8.0)	U = 65.000
	Male	20.0 (12.0)	p = 0.796
	Female		
	<b>Marital Status</b>	18.0 (0.0)	H = 1.707
	Single	21.0 (9.0)	df = 2
	Married	14.0 (0.0)	p = 0.426
	Others		
	<b>Ever taught SDW</b>	24.0 (15.0)	U = 36.500
	No	18.0 (8.0)	p = 0.446
	Yes		
	<b>Perception about SWD*</b>	53.0 (4.5)	U = 26.000
	Negative	61.5 (5.5)	P = 0.009
	Positive		
Age*	20.0 (8.0)	U = 62.500	
Less than 40	19.0 (10.0)	P = 0.928	
40 and above			

U = Mann Whitney U test H = Kruskal Wallis test

with a positive perception of living with disabilities, 61.5 was significantly higher than the average ATDP score among staff with a negative perception of living with disabilities, 53.0. The average years in academia among staff with negative attitudes towards SWD (12.5 years) was significantly higher than those with positive attitudes towards SWD (6.5 years),  $p = 0.033$ . Details are as shown in Table 3 below. Total number of years in academia was also significantly associated with attitude towards SWDs ( $p = 0.033$ ). The median years of experience in academia among those with negative attitudes towards SWD (12.5 years) was significantly higher than median years of experience among staff with positive attitudes, 6.5 years.

### **Determinants of Undergraduate Students' Attitudes Towards Students with Disabilities**

Using binary logistic regression analysis, gender and perception of students with disabilities were significant determinants of having a positive attitude towards students with disabilities among undergraduate student participants. Undergraduate students with positive perceptions of disability were 23.6 times more likely to have positive attitudes towards students with disabilities compared with people having poor perceptions of

**Table 4.** Binary logistic regression of association between students' characteristics and attitudes towards students with disabilities.

Variables	Odds Ratio	p-value	95% CI
<b>Gender</b>			
Male	Ref	0.032	1.052–3.018
Female	1.8		
<b>Perception of living with disability</b>			
Negative	Ref	0.000	10.871–51.332
Positive	23.6		
<b>Knowing any student with disability</b>			
No	Ref	0.406	0.729–2.185
Yes	1.3		

disabilities ( $p < 0.001$ ). Also, females are 1.8 times more likely to have positive attitudes towards students with disabilities than males ( $p = 0.032$ ). Details are shown in Table 4. Using linear regression, perception of living with disabilities among staff and the total number of years in academia were not significant determinants of attitudes of staff towards SWDs.

## Discussion

This study aimed to assess the attitudes of undergraduate students and academic staff towards students with disabilities. About two-thirds of the undergraduates students have good attitudes towards students with disabilities. Being a female and having a positive perception of living with disabilities were significant determinants of undergraduate students' attitudes towards students with disabilities. There was also a statistically significant association between academic staffs' perception of students with disabilities and their attitudes towards students with disabilities. This study is important because it provides evidence from South West Nigeria about inclusiveness in tertiary education.

The study ensures equal representation of male and female gender to capture the view of both genders. Majority of the respondents were Christians, being the dominant religion in the study area. About 6 out of 10 respondents were in the age range of 21–25. This could be due to the restriction of the scope of this study to undergraduate students in their penultimate and final years in school. It is also the expected age range based on the school system in Nigeria. This age range is similar to the most common age range in other studies conducted among undergraduate students (Ajuwon et al., 2015; Uysal et al., 2014; Vincent-Onabajo & Malgwi, 2015).

Six out of 10 undergraduate student respondents were observed to have positive attitude towards people with disabilities. This is in agreement with findings from previous studies conducted in the same study area where 6 out of 10 respondents had positive attitudes towards people with disabilities (Olaoye, Oduola, Alonge, & Emechete, 2017; Vincent-Onabajo & Malgwi, 2015). Another study among a similar population showed a high proportion of the students having positive attitudes towards people with disabilities (Eni-Olorunda, Adeboye, & Akinbode, 2013). However, a study conducted among Nursing Science students in Ghana observed negative attitude among majority of the respondents (Awoyera, 2011). The study was nonetheless conducted among very few (60) nursing students, thus the finding may not be representative of the attitude of all nursing students in the school.

Gender was a significant factor affecting attitudes towards students with disabilities. It was observed that females were about two times more likely to have positive attitudes towards students with disabilities compared with males. This is similar to the findings from a study conducted in the same study area where the female gender was significantly associated with positive attitudes towards people with disabilities (Olaleye et al., 2012). The study was, however, conducted among secondary school students who are younger. Also, the female gender was observed to be more compassionate with people living with disability in most other studies that have been conducted among undergraduate students or its equivalents (Ajuwon et al., 2015; ND; Griffin, Summer, McMillan, Day, & Hodapp, 2012; Kowalska & Winnicka, 2013; Winis, 2013).

There was, however, no significant association between gender and attitude towards people with disabilities in a comparative study conducted among the Libyans and Britons (Benomir, Nicolson, & Beail, 2016). Also, the studies among undergraduate nursing students in Ghana and Barbadian students showed no significant association between gender and their attitude (Awoyera, 2011; Blackman, 2016). This could be due to differences in cultural settings of the study area relative to our study area (Awoyera, 2011; Benomir et al., 2016; Blackman, 2016).

The age of undergraduate students and staff was not a significant factor affecting respondents' attitudes in this study. This could be due to limitations in the age range of the undergraduate respondents by limiting the study to respondents in the penultimate and final years of their study, thus, this study had a close age group. The age range of academic staff was also limited due to a few older staff that volunteered to partake in this study. The findings from this study were contrary to observations from other studies which revealed that people of older age groups were more compassionate with people with disabilities (Agyemang & Delle, 2013; Vincent-Onabajo & Malgwi, 2015). People of younger age groups recorded better attitudes in studies conducted among undergraduates in Lagos and Turkey (Ajuwon et al., 2015; Uysal et al., 2014; Vaz et al., 2015). A study conducted in Australia also showed that teachers that belonged to an older age group had a negative attitude towards the inclusion of SWDs. The study was however conducted among primary school teachers (Vaz et al., 2015).

Knowledge of disabilities or previous contact with persons with disabilities had a significant association with the attitude of undergraduate respondents towards students with disabilities. Higher proportion of the respondents have students with disabilities as roommates and colleagues. Majority of those who have had contact with students living with disabilities had positive attitudes. This is in agreement with previous studies which alluded to the fact that previous contact or knowledge of people with disabilities are associated with positive attitudes towards students with disabilities (Awoyera, 2011; ND; Olaleye et al., 2012; Uysal et al., 2014). This shows that increasing contact with students with disabilities by strengthening inclusion in tertiary education may further improve attitude of students and staff towards students with disabilities. This will in turn create a more conducive learning environment for students with disabilities.

Among the staff, experience with teaching students with disabilities has no significant association with their attitude towards students with disabilities. This is similar to findings from a study conducted among student teachers in suburbs of United States of America, where there was no significant association between having contact with students with disabilities during their teaching practice and their attitude towards students with

disabilities (Barr, 2013). Contact with SWDs was, however, observed to have negative effect on teachers' turnover in the selected schools in North Carolina. The finding from this study is contrary to that of a similar study conducted in Kaduna State Nigeria where it was observed that increased frequency of contact was associated with positive attitudes towards SWDs (Olorukooba et al., 2020). The study was, however, conducted among primary and secondary school teachers. The variation in academic environment, age of student populations being taught and nature of contacts could be responsible for the variations observed.

There was no significant difference in the proportion of male and female staff with positive attitudes towards students with disabilities. This was contrary to the findings from most similar studies where a higher proportion of female staff were observed to have positive attitudes towards SWD compared with their male colleagues (Butakor et al., 2020; Saloviita, 2020). It was observed that years of staff experience in academia had a significant association with their attitudes towards SWD. Staff with longer duration of experience in academia had poorer attitude towards SWD relative to staff with shorter duration of experience in academia. This is consistent with findings from a study conducted among Finnish lecturers. It was observed that younger teachers were more positive towards inclusiveness in tertiary education (Saloviita, 2020).

The odds of turnover of teachers without training in special education was higher as they taught in classes with higher percentage of students with learning disabilities (Gilmour & Wehby, 2019). The difference in the findings could be due to a varying degree of interaction with SWDs.

## Limitations

There are few limitations to the present study. Few academic staff volunteered to partake in the study. Also, academic staff with more than 10 years of teaching experience were less represented in the study. Conducting the study among a larger number of academic staff would have made the study more robust and produced a more representative view of academic staff. The study was based on only quantitative data. The use of a qualitative approach or a mixed method of data collection in a similar study will provide more insight into perceptions of students and academic staff about students with disabilities. The questionnaire used in this study was developed and used without validity or reliability data to support it.

## Conclusion

Most students and academic staff had positive attitudes towards students with disabilities, however, there is a need to further address the inclusiveness of students with disabilities in tertiary co-education through formulation policies that will further enhance interaction of the university community with SWDs. There is also a need for staff sensitisation and introduction of disability studies to the curriculum of undergraduate students to educate them. Creation of a special help desk for students with disabilities will help in ensuring sustainability of interventions developed to improve learning environment for students with special needs. One of such interventions is to periodically sensitise the university community (staff and students) about needs and support for students with disabilities. To foster

inclusiveness in tertiary education, it is hoped that these measures will improve the attitude of students and academic staff with poor attitudes towards students with disabilities and serve as reinforcement for those with positive attitudes towards students with disabilities.

## Additional File

OAU: Obafemi Awolowo University; PWD: Persons with disabilities; SWD: Students with disabilities

## Acknowledgments

We appreciate the cooperation of the directorate of students' affairs of the Obafemi Awolowo University and the participants during data collection. Macellina Yinyinade Ijadunola is supported by the Consortium for Advanced Research Training in Africa (CARTA) which is funded by the Carnegie Corporation of New York (Grant No-B 8606.R02), SIDA (Grant No: 54100029) and the Developing Excellence in Leadership, Training and Science in Africa (DELTAS Africa) Initiative (Grant No: 107768/Z/15/Z). The views expressed in this publication are those of the authors and not necessarily those of the partners in the consortium.

## Disclosure Statement

No potential conflict of interest was reported by the author(s).

## Funding

The authors have no funding to report.

## ORCID

Macellina Ijadunola  <http://orcid.org/0000-0002-4838-0431>

Patrick Akinyemi  <http://orcid.org/0000-0001-6253-1059>

## Availability of Data and Materials

Data can be made available on reasonable request from the corresponding author

## References

- Agyemang, C. B., & Delle, E. (2013). Demographic factors and attitude toward disable employees: Empirical evidence from Ghana. *Research on Humanities and Social Sciences*, 3(19), 53–59.
- Ajuwon, P. M., Lesi Afolabi, F. E., Odukoya, O., & Melia, C. (2015). Attitudes of medical students toward disabilities in Nigeria. *International Journal on Disability and Human Development*, 14(2), 131. doi:10.1515/ijdh-2014-0017
- Alivia Luck. (ND). College students' attitudes towards intellectual, developmental, learning, and physical disabilities. Retrieved July 14, 2020, from <https://www.mckendree.edu/academics/scholars/issue17/luck.htm>

- Arimoro, A. E. (2019). Are they not Nigerians? The obligation of the state to end discriminatory practices against persons with disabilities. *International Journal of Discrimination and the Law*, 19(2), 89–109. <https://doi.org/10.1177/1358229119846764>
- Awoyera, O. (2011). Attitude of student nurses toward people with disabilities. *Nursing Education Today*, 34(5), doi:10.1016/j.nedt.2013.09.001
- Barr, J. (2013). Student-teachers' attitudes toward students with disabilities: Associations with contact and empathy. *International Journal of Education and Practice*, 1(8), 87–100. doi:10.18488/journal.61/2013.1.8/61.8.87.100
- Benomir, A. M., Nicolson, R. I., & Beail, N. J. R. (2016). Attitudes towards people with intellectual disability in the UK and Libya: A cross-cultural comparison. *Research in Developmental Disabilities*, 51, 1–9. doi:10.1016/j.ridd.2015.12.009
- Blackman, S. (2016). Barbadian students' attitudes towards including peers with disabilities in regular education. *International Journal of Special Education*, 31(1), 135–143.
- Butakor, P. K., Ampadu, E., & Suleiman, S. J. (2020). Analysis of Ghanaian teachers' attitudes toward inclusive education. *International Journal of Inclusive Education*, 24(11), 1237–1252. <https://doi.org/10.1080/13603116.2018.15126>
- Disabled World. (2018, 26/11/2018). Disability News: Africa. Retrieved July 14, 2020, from <https://www.disabled-world.com/news/africa/>
- Emmers, E., Baeyens, D., & Petry, K. (2020). Attitudes and self-efficacy of teachers towards inclusion in higher education. *European Journal of Special Needs Education*, 35(2), 139–153. <https://doi.org/10.1080/08856257.2019.1628337>
- Eni-Olorunda, J., Adebayo, T., & Akinbode, O. (2013). Perception and attitude of FUNAAB undergraduates towards persons with physical disabilities (PWPDS) *Journal of Humanities, Social Sciences and Creative*, 8, 53–61.
- Etieyibo, E., & Omiegbe, O. (2016). Religion, culture, and discrimination against persons with disabilities in Nigeria. *African Journal of Disability*, 5(1), 192. doi:10.4102/ajod.v5i1.192
- Ewang, A. (2019). Nigeria passes disability rights law: offers hope of inclusion, improved access. Retrieved July 15, 2020, from <https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law>
- Gibbons, M. M., Cihak, D. F., Mynatt, B., & Wilhoit, B. E. (2015). Faculty and student attitudes toward postsecondary education for students with intellectual disabilities and autism. *Journal of Postsecondary Education and Disability*, 28(2), 149–162.
- Gilmour, A., & Wehby, J. (2019). The association between teaching students with disabilities and teacher turnover. *Journal of Educational Psychology*. doi:10.1037/edu0000
- Griffin, M. M., Summer, A. H., McMillan, E. D., Day, T. L., & Hodapp, R. M. (2012). Attitudes toward including students with intellectual disabilities at college. *Journal of Policy and Practice in Intellectual Disabilities*, 9(4), 234–239. <https://doi.org/10.1111/jppi.12008>
- Ijadunola, M. Y., Ojo, T. O., Akintan, F. O., Adeyemo, A. O., Afolayan, A. S., & Akanji, O. G. (2018). Engendering a conducive environment for university students with physical disabilities: Assessing availability of assistive facilities in Nigeria. *Disability and Rehabilitation: Assistive Technology*, 14(4) .
- Kendall, L. (2018). Supporting students with disabilities within a UK university: Lecturer perspectives. *Innovations in Education and Teaching International*, 55(6), 694–703. <https://doi.org/10.1080/14703297.2017.1299630>
- Khan, M. A., & Khan, F. S. (2017). Evaluating the difference in attitude between students and illiterates towards disabled people. *Journal of Psychology and Oncology*, 2, 4.
- Kowalska, J., & Winnicka, J. J. P. P. B. (2013). Attitudes of undergraduate students towards persons with disabilities; the role of the need for social approval. 44(1), 40–49. doi:10.1177/2F0034355217727600
- Lipka, O., Sarid, M., Aharoni Zorach, I., Bufman, A., Hagag, A. A., & Peretz, H. (2020). Adjustment to higher education: A comparison of students with and without disabilities. *Frontiers in Psychology*, 11(923). doi:10.3389/fpsyg.2020.00923

- Lister, K., Pearson, V. K., Collins, T. D., & Davies, G. J. (2020). Evaluating inclusion in distance learning: A survey of university staff attitudes, practices and training needs. *Innovation: The European Journal of Social Science Research*, 1–19. doi:10.1080/13511610.2020.1828048
- Obafemi Awolowo University. (2020). History of the University. Retrieved July 10, 2020, from <https://oauife.edu.ng/about-oau/history>
- Olaleye, A. O., Ogundele, O., Deji, S., Ajayi, O., Olaleye, O., & Adeyanju, T. (2012). Attitudes of students towards peers with disability in an inclusive school in Nigeria. *Disability, CBR and Inclusive Development*, 23(3), 65.
- Olaoye, O. A., Oduola, B. A., Alonge, T. J., & Emechete, A. A. I. (2017). Attitude toward contact with people with disabilities and knowledge of disability among health science undergraduates in a Nigerian University. *Journal of Behavioral Health*, 6(3), 129–135.
- Olorukooba, A., Adamu, A., Asuke, S., Muhammad, U., Amadu, L., & Lawal, A. (2020). Perception and attitude of school teachers toward children with disability in an urban community, Northwest Nigeria. *Journal of Medicine in the Tropics*, 22(2), 73–79. doi:10.4103/jomt.jomt\_11\_19
- Oluremi, F. D., & Olubukola, O. O. (2013). Impact of facilities on academic performance of students with special needs in mainstreamed public schools in Southwestern Nigeria. *Journal of Research in Special Educational Needs*, 13(2), 159–167.
- Policy and Legal Advocacy Center. (2019). Discrimination against person with disabilities (Prohibition) Bill, 2018. Retrieved from <https://placng.org/wp/wp-content/uploads/2018/11/Discrimination-against-Persons-with-Disabilities-Prohibition-Bill-2018-Harmonised.pdf>
- Saloviita, T. (2020). Attitudes of teachers towards inclusive education in Finland. *Scandinavian Journal of Educational Research*, 64(2), 270–282. doi:10.1080/00313831.2018.1541819
- Uysal, A., Albayrak, B., Koculu, B., Kan, F., & Aydin, T. (2014). Attitudes of nursing students toward people with disabilities. *Nurse Educ Today*, 34(5), 878–884. doi:10.1016/j.nedt.2013.09.001
- Vaz, S., Wilson, N., Falkmer, M., Sim, A., Scott, M., Cordier, R., & Falkmer, T. (2015). Factors associated with primary school teachers' attitudes towards the inclusion of students with disabilities. *PLOS ONE*, 10(8), e0137002. <https://doi.org/10.1371/journal.pone.0137002>
- Vincent-Onabajo, G. O., & Malgwi, W. S. (2015). Attitude of physiotherapy students in Nigeria toward persons with disability. *Disability and Health Journal*, 8(1), 102–108. doi:10.1016/j.dhjo.2014.06.009
- Wasielewski, L. M. (2016). Academic performance of students with disabilities in higher education: Insights from a study of one catholic college. *Journal of Catholic Education*, 20(1), n1.
- Winis, C. (2013). *Determining the attitudes of elementary school teachers towards the inclusion of children with disabilities: A case study of three elementary schools in Goroka, Eastern Highlands Province, Papua New Guinea*. New Zealand: University of Waikato.
- World Bank. (2019, 02/10/19). Disability Inclusion. 02/10/19). Retrieved July 15, 2020, <https://www.worldbank.org/en/topic/disability>
- World Health organisation. (2011). *World report on disability*. Retrieved July 15, 2020, from Malta: [https://www.who.int/disabilities/world\\_report/2011/report.pdf](https://www.who.int/disabilities/world_report/2011/report.pdf)
- World Health organisation. (2019). Disabilities. Retrieved July 15, 2020, from <https://www.who.int/topics/disabilities/en/>
- Yuker, H.E., Block, J.R., & Young, J.H. (1970). *The measurement of attitudes towards disabled persons*. New York, USA: ERIC