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Causes and mitigation of academic dishonesty among healthcare students in a Nigerian university

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Abstract

This study aimed to assess the knowledge, perception, influencing factors as well as suggested strategies to reduce academic dishonesty among healthcare students.

A cross-sectional design that employed a self-administered online questionnaire was used to collect data among healthcare students in Afe Babalola University, Ado-Ekiti, Nigeria. Purposive and simple random sampling techniques were used in selecting the respondents. Knowledge was categorised into poor (< 50% of total score), fair (50–69% of total score) and good (≥ 70% of total score) while perception was classified as positive (≥ 50% of total score) and negative (< 50% of total score). Association between student demographics, and perception of academic dishonesty was analysed using Chi-Square and Fisher Exact tests. Differences in knowledge between demographics was analysed using independent sample T-test and One way Analysis of variance.

Three hundred thirty-five students were enrolled in this study of which 83.3% were female and the mean age of the respondents was 19.33 years. 29.8% and 94.9% of the students showed good knowledge and positive perception of academic dishonesty respectively. There was a significant difference in knowledge based on students' level of study ($p < 0.001$) and departments ($p < 0.001$). Fear of failure (77.0%), social stigma and peer pressure (37.0%) were commonly identified reasons for academic dishonesty among students while strict punishment (18.3%) and proper invigilation (16.2%) were the most suggested strategies ($n = 178$) to control academic dishonesty among students.

Poor to fair knowledge and positive perception towards academic dishonesty was shown by majority of the students. Educational intervention in form of training and proper implementation of suggested strategies is warranted to improve knowledge, reduce misconceptions and ultimately reduce academic dishonest behaviours among students.

Keywords: Knowledge, Academic dishonesty, Perception, Healthcare students, Nigeria

Introduction

Conducting examination in schools is an important measure of evaluating students' performance in terms of knowledge and application of course content. Examinations are a common assessment approach in higher education that is used to objectively examine student competency in meeting course learning objectives (Ahmad & Hamed, Ahmad and Hamed Ahmad and Hamed 2014). However, this process has been hampered with rising cases and various forms of academic dishonesty and misconduct. Students in higher institutions of learning now have a culture of cheating and this issue defeats the purpose of evaluating students' knowledge via examinations (Diego 2017; Forkuor et al. 2019). Academic dishonesty is a global problem that affects both developed and developing countries (Ubaka et al. 2013; Kusnoor & Falik 2013; Kyei & Nduro 2014). In fact, about 50 to 80 percent of students in tertiary institutions have been reported to participate in at least one form of academic dishonesty globally (Kusnoor & Falik 2013; Kyei & Nduro 2014; Saana et al. 2016). In developing countries, the incidence of academic dishonesty seems to be on the rise. This variance could be attributable to cultural and socioeconomic differences between developed and developing countries (Al-Qahtani & Guraya 2019; Abbas et al., 2021), as well as differences in the perception of academic misconduct (Keener et al. 2019; McGurgan et al. 2020). In Ghana, about 40% students admitted to witness their colleagues engage in some forms of academic dishonesty (Saana et al. 2016). Also, in Nigeria, similar results have been obtained and according to research done at two Nigerian universities, more than 50% of undergraduate pharmacy students used academically dishonest means in the preparation of their academic exercises (Ubaka et al. 2013).

Similarly, incidence of academic dishonesty can be associated with knowledge of academic misconduct behaviours, consequences and motivation. According to research, university students frequently indicate a lack of knowledge or understanding of academic dishonesty (McCabe et al., 2012). Furthermore, university students dispute about what acts constitute academic misconduct, how heinous such behaviours are, and how to respond to them (Burrus et al. 2007; Carpenter et al. 2010; Keener et al. 2019).

The most popular cheating methods are moving scribbled notes from one person to another, writing notes on the palm of one's hand, and copying directly from someone's script (Curran et al. 2011). More sophisticated means are used to cheat including use of the internet and internet enabled gadgets which are difficult to detect (Curran et al. 2011; Bachore 2016; Kayişolu & Temel, 2017). Possible reasons have been provided in literature to the high prevalence of academic dishonesty with pressure to get excellent marks in order to improve one's employment chances being the major motivation for students' engagement in academic dishonesty (Bachore 2016; Kayişolu & Temel, 2017). Other reasons include insufficient time to prepare, difficult courses, laziness, competition with others, stress, difficult exams, fear of failure, and peer pressure (Abiodun et al. 2011; Bachore 2016). Gender is one of the most common factors associated with cheating behaviour in students. Males are more likely to cheat and have more lenient views toward cheating than females, according to several studies (Arnett et al. 2002; Hensley et al. 2013; Jereb et al. 2018). Furthermore, there appears to be a little direct effect of gender on student cheating but the variations in cheating behaviour based on gender are primarily explained by a collection of social factors such as shame, humiliation, and

self-control (Gibson et al. 2008; McCabe et al. 2012). Contextual factors also exist that can influence cheating such as perception of friends cheating as well as competition to achieve higher marks. Cheating can be perceived as less blameable and morally unacceptable if individual students feel their friends cheat (McCabe et al. 2012). Similarly, according to previous research by Anderman and Koenka (2017), schools that place a strong emphasis on competition and achievement tend to have a higher rate of cheating among their students, whereas schools that place a strong emphasis on the value of learning have a lower rate of cheating (Miller et al. 2007).

Students who cheat their way through exams are more likely to perform poorly in life, resulting in lower productivity. Furthermore, it has been reported that students who cheat during exams are more likely to cheat as employees (Syam 2014). Thus, students' indulgence in academic cheating can have an impact on them as future employees as well as the success of their institution as a whole (Attoh et al. 2011; Diego 2017). Cheating also has a negative impact on the educational institution's reputation and credibility because when students are given credentials, they are unable to work well in the job in order to satisfy their certificates. As a result, this circumstance has an impact on the image of future students who may attend such institutions (Dusu et al. 2016).

Healthcare professions, by their very nature, deal with human subjects and are founded on ethical applications and principles. The rigorousness of academic preparation, development of understanding, and practise underpin such qualities as healthcare professionals. These professionals require clear governance, accountability, and professionalism standards, and as a result, ethics remains an important component of health care (Ahmer et al. 2021). Students' perception of what is institutionally acceptable and unacceptable in terms of dishonesty may influence their future job behaviour (Harper, 2006). In fact, unethical behaviours have been linked to students' lack of awareness of what constitutes academic dishonesty (Ryan et al. 2009; Kusnoor & Falik 2013). Since healthcare students are future health professionals, it is important to assess their knowledge, perception and explore the reasons associated with tendencies of academic dishonesty. Unfortunately, research data on academic dishonesty is limited particularly in developing countries such as Nigeria. This study will provide a building block for the design of future interventions by education leaders, policymakers, and teaching staff in Nigeria. This study assessed the knowledge, perception towards, reasons, as well as suggested measures to combat academic dishonesty among healthcare students in Afe Babalola University, Ado-Ekiti.

Methods

Study design

This study was a descriptive cross-sectional study conducted between June and July, 2022.

Study population

The study was carried out among healthcare students from the departments of Pharmacy, Medicine and Surgery, Medical Laboratory Sciences, Nursing, and Public Health of Afe Babalola University, Ado-Ekiti, Nigeria.

Sample size

The sample size was determined using the Raosoft software where the population size was set at 2572 which is the total population of students in the 5 departments of interest. The confidence interval was set at 95% giving an estimated sample size of 335 students.

Sampling technique

Purposive sampling technique was used to select the departments with healthcare students while simple random sampling was used to select the participating students of each of the selected departments. Purposive sampling is a technique commonly used in qualitative research to identify and choose information-rich situations in order to make the most use of limited resources (Patton 2014). This entails locating and selecting individuals or groups of individuals who are particularly knowledgeable or experienced with a topic of interest (Cresswell & Plano Clark, 2011). Random sampling is one such process that selects a random sample of units from a population in order to permit generalisation from the sample to the population (Shadish et al. 2002). Random sampling ensures that the findings received from your sample are close to those obtained if the full population was measured. The simplest random sample gives each unit in the population an equal probability of being chosen.

Research instrument

An online questionnaire is a type of data collection method for both qualitative and quantitative data that have become popular especially when used to collect data in hard-to-reach areas (Van & Jankowski 2006). Its popularity increased during the COVID-19 era as many researchers used this method to collect data (Watts 2020). An online questionnaire is a reliable method and has been documented to have no much difference with paper questionnaires (Fouladi et al. 2002). An online semi-structured self-administered questionnaire was used to carry out this study. This questionnaire was made up of 4 sections. The first section documented the student demographics while the second section documented the knowledge of students on academic dishonesty made up of true or false questions and multiple-choice questions. The third section assessed the perception of the students towards academic dishonesty which was made up of Likert Scale Questions. The fourth section reported the factors affecting academic dishonesty among students as well as suggested measures to curb academic dishonesty among students. This section consisted of Likert scale questions, and open-ended questions. The knowledge of the particpants was categorised into poor (< 50% of total knowledge score), fair (50–69% of total knowledge score) and good ($\geq$ 70% of the total knowledge score) while perception was categorised into positive ($\geq$ 50% of total perception score) and negative (< 50% of total perception score).

Validity and reliability of research instrument

The goal of establishing reliability and validity in research is to ensure that the data is sound and reproducible, and that the results are accurate. To ensure the integrity and quality of a measurement instrument, evidence of validity and reliability are required (Kimberlin & Winterstein 2008). Lecturers from the departments of Nursing, Medicine and Surgery, Medical laboratory sciences, Public health and Pharmacy validated the

questionnaire for its relevant and intellectual content. A pre-test was carried out among 11 students from pharmacy department which was excluded from the main analysis. Reliability of the questionnaire was done using Cronbach Alpha test and a value of 0.86 was recorded.

Protocol

The questionnaires were distributed randomly to the students in the respective departments and their informed consent was sought before enrolment into the study.

Data analysis

Descriptive statistics was used to analyse categorical data into tables and charts via frequencies and percentages. Association between student demographics, perception as well as knowledge of academic dishonesty was analysed using Pearson Chi-Square and Fisher Exact tests. The chi-square and Fisher Exact tests are used to compare the distribution of a categorical variable in one sample or group to the distribution in another. Fisher's exact test is commonly used to analyse small samples, but it is valid for all sample sizes (Kim 2017). Differences in knowledge between demographic variables was analysed using independent sample T-test and One way Analysis of variance for demographics with two (2) groups and more than two (2) groups respectively. The independent sample t-test and one way analysis of variance are statistical procedures for testing hypotheses and comparing means between groups (Mishra et al. 2019). The independent sample t-test is used to compare means between 2 groups while one-way analysis of variance is used to compare means between 3 groups.

Ethical consideration.

Ethical considerations are ethical research standards or principles that safeguard morals and guide researchers while they perform any research (Resnik, 2020). These considerations are done with the help of an independent ethics committee. They hold researchers accountable, ensuring correct use of funding and avoiding research misconduct. Addressing ethical issues in research ensure that the public can have faith in the research. Ethics approval was obtained from Afe Babalola University Research Ethics Committee (ABUADREC) before commencement of the study and all ethical guidelines were followed. Written informed consent was obtained from study participants before enrolment into the study.

Results

Demographics

A total of 335 study respondents enrolled in this study of which 83.3% were female and 80.9% were Christians. The mean age of the respondents was 19.33 (SD: 2.319 years). Other demographics captured were student ethnicity, departments and level of study summarised in Table 1.

Knowledge of students on academic dishonesty

In this study, only 60% of the participants could correctly define academic dishonesty while over 95% stated that academic dishonesty can take various forms (Table 2). The forms of academic dishonesty identified by the students were; attempting to bribe

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Table 1 Demographics of study respondents

Demographics		Frequency	Percent
Gender	Male	56	16.7
	Female	279	83.3
Ethnicity	Yoruba	141	42.1
	Hausa	20	6.0
	Igbo	71	21.2
	Others	103	30.7
Religion	Christianity	271	80.9
	Islam	61	18.2
	Others	3	0.9
Department	MBBS	180	53.7
	Pharmacy	44	13.1
	Nursing	74	22.1
	MLS	28	8.4
	Public Health	9	2.7
Level of study	100–300	197	58.8
	400–600	138	41.2
Age (Mean ± SD (Range))		19.33 ± 2.319 (15–34 years)	

MBBS Medicine and surgery, *MLS* Medical Laboratory sciences, *SD* Standard deviation

Table 2 Knowledge of participants on academic dishonesty

	Statement (*N* = 335)	Responses	Frequency (%)
1	Academic dishonesty is committing or contributing to any unethical behaviour while completing work	Correct	201 (60.0)
2	Academic dishonesty can only be carried out by students	Correct	159 (47.5)
3	Students who cheat in academic activities may cheat in other areas of life, work and family	Correct	243 (72.5)
4	Public safety and welfare may be compromised on the long run in related professions due to cheating by such students	Correct	292 (87.2)
5	Academic dishonesty can impair instructors accuracy in assessing actual mastery of skills and knowledge of cheating students	Correct	286 (85.4)
6	Academic dishonesty can take various forms	Correct	321 (95.8)
b. Forms of academic dishonesty identified by respondents			**Frequency (%)[a]**
1	Unauthorised use of materials, devices, or practices in completing academic activities		265 (79.1)
2	Use of another person's ideas without proper acknowledgement or permission		236 (70.4)
3	Unauthorised creation, alteration, or misrepresentation of information		191 (57.0)
4	Disrupting another person's work so that the person cannot complete an academic activity		189 (56.4)
5	Impersonating another person during an exam or test		261 (77.9)
6	Unauthorised collaboration during a test or exam		180 (53.7)
7	Not contributing as required to a team project and allowing the team effort to fail		195 (58.2)
8	Inventing a source of data or information that does not exist		168 (50.1)
9	Copying answers from a fellow student during a test or exam		247 (73.7)
10	Taking unauthorised materials (E.g. Mobile phones) into the exam hall		263 (78.5)
11	Attempting to bribe examination invigilators or examiners during/after an exam		270 (80.6)
12	Exchanging examination booklets with a fellow student so as to copy his/her answers		259 (77.3)
	Mean knowledge score ± SD (Range) **Total obtainable score: 18 points**		10.57 ± 4.629 points (0–18 points)
	Scores categories	**Frequency (%)**	**Remark**
	< 50%	98 (29.3)	Poor knowledge
	50–69%	137 (40.9)	Fair knowledge
	≥ 70%	100 (29.8)	Good knowledge

SD Standard deviation

[a] Item had multiple responses

examination invigilators or examiners during/after an exam (270, 80.6%); impersonating another person during an exam or test (77.9%); and inventing a source of data or information that does not exist (168 (50.1%)). Other identified forms of academic dishonesty have been listed in Table 2. Overall, about 30% had poor knowledge while 40.9% had a fair knowledge of academic dishonesty. There was a significant difference in knowledge scores based on students' level of study (p < 0.001) and departments (p < 0.001) but no significant difference based on gender ($p = 0.656$) (Table 3).

Students' perception on academic dishonesty

The students' perception of academic dishonesty was assessed. About 61% (204) stated that taking the idea or work from a fellow student to submit as one's own is absolute cheating, while less than 3% (9) reported that copying answers from a fellow student during a test or exam is not cheating. Mild cheating and moderate cheating were median responses for making false entries in practical logbooks and telling a fellow student answers during a test or exam respectively (Table 4). Overall, most students (318, 94.9%) had a positive perception towards academic dishonesty. There was a significant association between students' perception and their departments ($X^2 = 12.660$; $p = 0.006$) but no significant association with study level ($X^2 = 0.254$; $p = 0.801$) and gender ($X^2 = 0.315$; $p = 0.748$) (Table 5).

Reasons for academic dishonesty among study respondents

Some reasons were reported on why students carryout academic dishonesty. The reasons identified were fear of failure (258; 77%), social stigma and peer pressure (124; 37%), and student laziness (10, 2.9%). Other reasons include; poor teacher's marking scheme, difficult exam questions and poor teacher skills (Table 6).

Table 3 Differences in knowledge based on student demographics

Variables		Frequency (%)	Mean Knowledge score ± SD	*p*-value
Gender	Male	56 (5.9)	10.32 ± 5.586	0.656[a]
	Female	279 (68.2)	10.62 ± 4.422	
Age	≤ 18 years	131	10.09 ± 4.276	0.127[a]
	> 18 years	204	10.88 ± 4.827	
Level of study	100–300	197 (58.8)	9.98 ± 4.516	**0.000[a]***
	400–600	138 (41.2)	11.42 ± 4.671	
Departments	Pharmacy	44(13.1)	11.98 ± 4.433	**0.000[b]***
	MBBS	180 (53.7)	11.34 ± 4.415	
	Nursing	74 (22.1)	8.24 ± 4.581	
	MLS	28 (8.4)	8.61 ± 3.910	
	Public health	9 (2.7)	13.56 ± 3.432	

SD Standard deviation

[a] Independent Sample T-test

[b] One way ANOVA test

[*] Significant value ≤ 0.05

Table 4 Perception of students towards academic dishonesty

S/N	Statement	Responses (%)					Median
		NC	NCNC	MC	MDC	AC	
1	Taking the idea or work from a fellow student to submit as one's own	20 (6.0)	24 (7.2)	48 (14.3)	39 (11.6)	204 (60.9)	**AC**
2	Copying answers from a fellow student during a test or exam	9 (2.7)	22 (6.6)	73 (21.8)	52 (15.5)	179 (53.4)	**AC**
3	Taking unauthorised materials into the exam hall	9 (2.7)	12 (3.6)	24 (7.2)	36 (10.7)	254 (75.8)	**AC**
4	Writing an exam for someone else or vice versa	10 (3.0)	15 (4.5)	5 (1.5)	22 (6.6)	283 (84.5)	**AC**
5	Marking attendance sheet for absent friends	56 (16.7)	69 (20.6)	95 (28.4)	40 (11.9)	75 (22.4)	**MC**
6	Making false entries in practical logbooks	47 (14.0)	61 (18.2)	86 (25.7)	57 (17.0)	84 (25.1)	**MC**
7	Copying an assignment from another student	57 (17.0)	63 (18.8)	87 (26.0)	57 (17.0)	71 (21.2)	**MC**
8	Fabricating or falsifying research data	20 (6.0)	32 (9.6)	57 (17.0)	54 (16.1)	172 (51.3)	**AC**
9	Allowing a fellow student to copy during a test or exam	25 (7.5)	27 (8.1)	71 (21.2)	83 (24.8)	129 (38.5)	**MDC**
10	Telling a fellow student answers during a test or exam	27 (8.1)	24 (7.2)	88 (26.3)	60 (17.9)	136 (40.6)	**MDC**
11	Exchanging examination booklets or question papers with fellow student to copy answers	11 (3.3)	5 (1.5)	34 (10.1)	36 (10.7)	249 (74.3)	**AC**
Perception categories		**Frequency (%)**					
Positive perception (≥ 50%)		318 (94.9)					
Negative perception (< 50%)		17 (5.1)					

NC Not Cheating-1, *NCNC* Neither Cheating nor Non-cheating-2, *MC* Mild Cheating-3, *MDC* Moderate Cheating-4, *AC* Absolute Cheating-5

Suggested measures to combat academic dishonesty by the students

Measures on how to combat academic dishonesty were suggested by 174 students. About 18.5% (36) suggested that strict punishment be given to offenders while 16.2% suggested proper invigilation. Efficient teaching methods and sufficient time to study prior to exams were suggested by 12.7% of the student number. Installing Closed-circuit television (CCTV) cameras, counselling, paying more attention to weak students and setting applied questions were suggested by less than 5% of the students. Other suggested measures have been summarised in Table 7

Discussion

The incidence of academic dishonesty seems to be on the rise in developing countries than developed countries with the prevalence ranging from 50–90% (Bretag et al. 2014; Khadem-Rezaiyan & Dadgarmoghaddam 2017). The difference could be attributable to cultural and socioeconomic differences, knowledge (Al-Qahtani & Guraya 2019; Abbas et al., 2021) as well as differences in the perception of academic misconduct (Keener et al. 2019; McGurgan et al. 2020). This high prevalence in academic dishonesty is well documented in African countries such as Ghana, (Saana et al. 2016) and Nigeria (Ubaka et al. 2013) with incidences associated with knowledge of academic misconduct behaviours,

Table 5 Association between demographics and student's perception of academic dishonesty

Item	Demographics (%)																		
	Gender		X²	P	Department					X²	P	Age		X²	P	Level		X²	P
	M	F			PHM	MBBS	NUR	MLS	PBH			≤18 years	>18 years			100–300	400–600		
Positive perception	54 (16.1)	264 (78.8)	0.315		44 (13.1)	175 (52.2)	66 (19.7)	24 (7.2)	9 (2.7)	12.660		124 (37.0)	194 (57.9)	0.032		188 (56.1)	130 (38.8)	0.254	
Negative perception	2 (0.6)	15 (4.5)	0.748ᵃ		-	5 (1.5)	8 (2.4)	4 (1.2)	-	0.006*ᵇ		7 (2.1)	10 (3.0)	1.000ᵃ		9 (2.7)	8 (2.4)	0.801ᵃ	

M Male, *F* Female, *P p*-value, *PHM* Pharmacy, *MBBS* Medicine and surgery, *NUR* Nursing, *MLS* Medical Laboratory science, *PBH* Public health

[a] Fishers Exact Test

[b] Chi-square test

* Statistically significant value ≤ 0.05

Table 6 Reasons for academic dishonesty among study participants

S/N	Statement (*N* = 335)	Frequency (%)[a]
1	Fear of failure	258 (77.0)
2	Lack of preparation	240 (71.6)
3	Heavy workload	225 (67.2)
4	Exam tension and stress	218 (65.1)
5	Poor study skills	217 (64.8)
6	Lack of time to prepare for examination	204 (60.9)
7	Because of pressure from parents to get good grades	201 (60.0)
8	Different standards and expectations on academic integrity among lecturers	193 (57.6)
9	Because the university only recognises those with good grades	144 (42.9)
10	Social stigma and peer pressure	124 (37.0)
11	Low self esteem	121 (36.1)
12	Lack of understanding of what constitutes academic dishonesty	106 (31.6)
13	Lack of awareness of the consequences of academic dishonesty	100 (29.9)
14	Carelessness of the lecturer/invigilator	89 (26.6)
15	Because everyone does it	78 (23.3)
16	Having a habit of self-justification	60 (17.9)
17	Because it is a life hack to passing an exam	56 (16.7)
18	Because of less likelihood of getting caught	54 (16.1)
19	Because even when caught, no punishment is given	38 (11.3)
20	Because it is not possible to pass with good grades without engaging in cheating	26 (7.8)
21	Student laziness	10 (2.9)
22	Poor teaching methods	6 (1.8)
23	Teacher's lack of skills; Forgetfulness; Dishonest lecturers; Lack of seriousness; Poor attitude of students towards learning; Students' lack of understanding of course;	4 (1.2)[b]
24	Bulky notes by lecturers; Students' lack of discipline; Fear of having a low score; Lack of setting of application questions during exams	3 (0.9)[b]
25	Lack of supportive lecturers; Students' lack of interest; Lazy lecturers; Poor student–lecturer relationship; Student being forced to study the course	2 (0.6)[b]
26	Poor marking scheme; Difficult exam questions; Lack of tutorials; Difficulty of courses	1 (0.3)[b]

[a] Item had multiple responses

[b] Different responses with same frequency

consequences and motivation. This study therefore, assessed the knowledge, perception as well as factors influencing academic dishonesty among university students.

Knowledge of students on academic dishonesty

Academic dishonesty can be defined as academic behaviour that does not comply with stated assessment requirements and other institutional policies (Guthrie 2009). Most students in this study identified that academic dishonesty was only among students. Academic dishonesty is often erroneously associated with student cheating only. Contrarily, it is well reported that academic dishonesty goes beyond student cheating to include other members of the faculty, staff and researchers (Christensen & Eaton 2022; Kim 2022). Forms of academic dishonesty associated with other members of tertiary institutions include plagiarism and falsification of research data and grant applications (Komnenic 2016; Robinson 2016); doctoring images as well as fraudulently using research funds (Munro 2014).

Table 7 Suggested measures for curbing academic dishonesty

S/N	Statement (*N* = 197)	Frequency (%)[a]
1	Strict punishment for offenders	36 (18.3)
2	Proper invigilation	32 (16.2)
3	Efficient teaching methods	25 (12.7)
4	Sufficient study time should be provided prior to exams	25 (12.7)
5	Not loading students with irrelevant notes and assignment	21 (10.7)
6	Motivating students (support)	13 (6.6)
7	Education on academic dishonesty to both staff and students	12 (6.1)
8	Extra tutorials and revision classes	12 (6.1)
9	Making information easily understandable (for slow learners)	9 (4.6)
10	Installing CCTV cameras in exam halls	8 (4.1)
11	Counselling	8 (4.1)
12	Giving in-course assessment to ensure easy understanding; Lecturers should be more accessible to students; Paying more attention to weak students	4 (2.0)[b]
13	Adequately spaced examination on the exam timetable; Diversifying teaching methods; Give area of concentration prior to the exam	3 (1.5)[b]
14	Conducting mock exams before main exams; Employment of lecturers with adequate teaching skills	2 (1.0)[b]
15	Setting of applied questions; Teaching students good study skills; Improved student interaction	1 (0.5)[b]

CCTV Closed-Circuit Television

[a] Item had multiple responses

[b] Different responses with same frequency

Similarly, the students in this study identified forms of academic dishonesty. They also reported attempting to bribe examination invigilators; impersonation and exchanging of exam booklets as the most common forms of academic dishonesty they know. This is in line with research from Ghana, where students were shown to frequently engage in academic dishonesty through cheating on exams and improperly exchanging answers when completing assignments (Saana et al. 2016). Also, copying answers from a fellow student during a test or exam aligns with the report that it is a popular cheating method (Curran et al. 2011). A number of students did not know that use of another person's ideas without proper acknowledgement or permission is a form of academic dishonesty. This is similar to findings in Nigeria (Okonta & Rossouw 2013) and other African countries (Sofola 2014). There are frequently not enough training programmes to advise students of the various types of academic dishonesty and effective ways to stop engaging in such behaviours (Okonta & Rossouw 2013; Thomas & Zyl 2014). There is a need for regular training programmes on academic dishonesty in the institution since students' comprehension of and involvement in academic dishonesty may be hampered by the lack of training programmes (Okonta & Rossouw 2013; Thomas & Zyl 2014).

Majority of the students in this study showed poor to fair knowledge with less than 30% showing good knowledge of academic dishonesty which shows a possible lack of understanding of the concept. This is in tandem with studies in literature where it is revealed that university students have inadequate comprehension of the fundamental words, procedures, and situations of academic dishonesty (Jordan 2001; McCabe et al., 2012). This is concerning as lack of knowledge births unethical behaviours (Ryan et al. 2009; Kusnoor & Falik 2013). Higher education institutions should be aware that if

students do not fully comprehend the reasons why they should not be academically dishonest, they are more likely to engage in unethical behaviour (Ryan et al. 2009; Kusnoor & Falik 2013). Less cheating occurs among students who are more aware of academic dishonesty (Jordan 2001). Therefore, emphasis should be on teaching them practical strategies to recognise and prevent academic dishonest behaviours.

The female students showed a better knowledge than males in this study while students of a higher age had a higher knowledge of academic dishonesty. This confirms findings of other studies where it was reported that age and gender of the student is associated to academic dishonesty (Saana et al. 2016; Korn & Davidovitch 2016). Older and female students are considerably less prone to cheat than younger and male colleagues. Significant difference in knowledge between the levels of study was also reported in this study which can be as a result of the students in the higher class being more exposed to what the meaning of academic dishonesty is. Significant difference in the knowledge of academic dishonesty among different departments may be attributed to the different mode of teaching, learning and conducting of assessment of the various departments.

Students' perception towards academic dishonesty

A student's perception of how serious cheating behaviour is influences both the likelihood and frequency of the activity, or cheating behaviour. A student is more inclined to cheat if they do not think some forms of cheating are unethical (Elias & Farag, 2010). The students in this study showed an overall positive perception although some students perceived some academically dishonest acts as mild to moderate cheating. This goes in line with reports that students dispute about what acts constitute academic misconduct (Burrus et al. 2007; Carpenter et al. 2010; Keener et al. 2019). Acts such as marking attendance sheet for absent friends, making false entries in practical logbooks, copying an assignment from another student were perceived as mild cheating while allowing a fellow student to copy during a test or exam, and telling a fellow student answer during a test or exam were perceived as moderate cheating by the students. These findings are consistent with studies in Ethiopia where cheating in the form of allowing someone to copy during exam, doing homework for others, and giving answers to friends during examination were perceived to be least/moderate cheating (Chala 2021). This result is consistent with a study by Oneill and Pfeiffer (2012), who discovered that giving someone permission to duplicate one's answers during a test or examination and whispering the answers to friends during a test are both regarded as minor instances of cheating. It is obvious that situations where students see cheating as a small issue will lead to higher rates of cheating. Therefore, interventions through educational and psychological means should be considered especially in areas where the student perception of cheating was mild and moderate.

Students' reasons for academic dishonesty

Effective preventative measures can be created by identifying the reasons that drive students to engage in unethical academic behaviours. In this study, the students reported reasons such as fear of failure, lack of preparation, heavy workload, exam tension and stress, as well as poor study skills. This is in congruence with a study by Saana et al. (2016), where motivational factors such as quest for good grades, high academic work

load, pressure not to disappoint family/guardian, and difficulty of subject were identified by majority of the study participants. This is also consistent with findings in other studies (Abiodun et al. 2011; Bachore 2016). Adequate counselling should be provided to the students highlighting that engaging in academic dishonest acts has more gruesome effects than benefits.

Suggested measures for mitigating academic dishonesty

Academic dishonesty can be properly controlled when adequate measures are taken. Despite the lack of proven methods, cheating prevention measures can only succeed provided they are applied regularly and effectively (Anagaw 2019). The students in this study suggested strategies and preventive measures to curb cheating among students with significant number suggesting strict punishment (18.3%), proper invigilation (16.2%). Education on academic dishonesty to both staff and students (6.1%), installation of CCTV cameras (4.1%) as well as paying attention to weak students (2%) and improved student interaction (0.5%) were least suggested strategies. These findings are consistent to findings in literature (Shon 2006; Saana et al. 2016; Anagaw 2019).

Strict punishment of offenders and proper invigilation of students was considered as the best measure for a student that engages in academic dishonesty. The opinion of the students in this regard may be as a result of it being the most common present measure employed by the institution. Proper invigilation methods can include proper searching of invigilation room, seat arrangement and multiple invigilators which have been shown to be effective (Shon 2006). Serious and effective invigilation as well as creating an environment where cheating is unacceptable can reduce academic dishonesty among students. Education on academic dishonesty to both staff and students is another important measure in preventing academic dishonesty. Increased awareness among staff and vigilance to traditional and innovative methods of cheating has been reported as an important factor to detect cheaters (Anagaw 2019). Similarly, less cheating occurs among students who are more aware of academic dishonesty rules (Jordan 2001).

A few students (2%) suggested that paying attention to weak students and improved student interaction can help reduce academic dishonesty. This confirms the report by Anagaw (2019) that stated that cheating can be reduced if teachers focused more on helping students in the classroom.

This study was not without limitations. This study was carried out among healthcare students and in one centre only which could affect the generalizability of the study findings. However, the findings could serve as a background to design of other studies.

Limitations of study

This study was not without limitations. The study used a combination of purposive and simple random sampling techniques to select respondents, which may not have resulted in a representative sample of the entire population of healthcare students in the university. Therefore, the findings may not be generalisable to other healthcare students or institutions. Also, a self-administered questionnaire was used in the study which may be prone to social desirability bias, where participants may provide responses that they believe are socially acceptable or expected, rather than their true beliefs or behaviours.

Another important limitation is that the study did not report effect sizes, which could have helped interpret the practical significance of the findings.

Conclusion

There was poor to fair knowledge as well as positive perception towards academic dishonesty shown by majority of the participants. Fear of failure, social stigma and peer pressure were common reasons for academic dishonesty identified by the students. Measures such as strict punishment and proper invigilation were suggested measures for curbing academic dishonesty among the students. Educational intervention in form of training as well as implementation of suggested strategies is warranted to aid in reducing academic dishonesty prevalence.

Abbreviations
ABUADREC　　　Afe Babalola University Research Ethics Committee
CCTV　　　　　Closed-Circuit Television

Authors' contributions
Conceptualization of the study was done by Edidiong Orok while the formal analysis and investigation was done by Edidiong Orok, and Funmilayo Adeniyi. Writing of the original draft preparation, editing and review was done by Edidiong Orok, Tonfamworio Williams, Favour Ikpe, Oyebode Dosunmu, and Clifford Orakwe. All authors reviewed and approved the final draft of the manuscript.

Availability of data and materials
Data material used in this study was confidential and will be made available by the corresponding author on request.

Declarations

Consent of publication
Not Applicable.

Competing interests
The authors declare that there is no conflict of interests.

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