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# Is Mercy Killing Right or Wrong? – Opinions of Clinical Students in Three Nigerian Tertiary Schools

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### Authors' contributions

This work was carried out in collaboration between both authors. The study was conceptualized by author KKK. Author KKK designed the study, developed the study tool, collected the data, and analyzed the data. Authors KKK and AIB wrote the manuscript. Both authors read and approved the final manuscript.

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## ABSTRACT

**Objectives:** To explore the opinions of medical, dental, physiotherapy, and nursing students in three tertiary schools in Ibadan, Nigeria, towards the ethics and practice of euthanasia.  
**Methodology:** This research was a cross-sectional questionnaire-based study. Questionnaires were issued to 450 students who volunteered to participate in this study, and only 433 participants returned their questionnaires filled. Out of the 433 questionnaires returned, 7 were discarded due to incomplete data. Only the data of 426 respondents were computed and analysed in this study.  
**Results:** The majority (88.7%) of our respondents were single, 60% were females, and those studying for the General Nursing diploma certificate were younger (mean age=19.6 years) than those studying other courses. The majority (31.2%) were also studying Medicine. Only 83.1% of them have heard of the term "euthanasia", 81.2% had encountered patients diagnosed with terminal illness during the course of their current education. The mean Likert scores of the medical and dental students indicated that the majority of them were of the opinion that it is morally right to render euthanasia to the brain-dead, if his/her children/parents requested for such. Furthermore, many of our respondents' religion (49.1%) and culture (46.2%) did not support the practice of

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euthanasia. Less than one-fourth (22.1%) of our respondents were of the opinion that euthanasia should be practised in Nigeria, 46.7% were of contrary opinion, while 31.2% were yet to decide. **Conclusion:** Euthanasia remains an issue of debate among students of clinical sciences.

*Keywords: Euthanasia; opinion; ethics; students; religion; culture; Nigeria.*

## 1. INTRODUCTION

Quite a number of hospitals have terminally ill patients who receive critical care services that keep them alive, and some of these services include mechanical ventilator support for the brain-dead, dialysis for those with end-stage renal disease, pain management in patients with advanced stage cancer, among others. Many at times, the caregivers in charge of these patients do face the problem of whether to withhold or withdraw life support from them [1,2]. In some situations, medical care may no longer be of much benefit to these patients, and they and/or their relatives no longer want the life sustenance to continue [3-6]. In circumstances where an appeal is made to withhold or withdraw life support from the terminally ill, the caregivers are faced with ethical dilemmas [7-8].

The act of actively ending the life of another person with the aim of preventing the individual from continuous suffering or indignity is termed euthanasia [9]. The Netherlands, in 2002, was the first country to legalise the practice of euthanasia [10]. Since then, many public debates on euthanasia arose all over the world [10]. It is noteworthy that religion and culture play strong influential roles on peoples' opinions concerning euthanasia [11]. In an European study by Cohen et al. [11], in 2006, it was documented that a significantly higher proportion of those that were religious considered euthanasia to be unethical, compared to those with no religion. Also, in their study, they found out that cultural background tends to influence peoples' acceptance of euthanasia. For instance, the Scandinavians were observed to have higher acceptance rate for euthanasia, compared to the British [11].

Furthermore, students of clinical subjects have been reported in different studies to show disputing opinions over the ethics of euthanasia, as some of them were of the opinion that it is morally right, while some said it is not [12-16]. To the best of the authors' knowledge, little or no study had been reported about the opinions of Nigerian students on the ethics and practice of euthanasia. Therefore, this study was conducted to explore the opinions of the medical, dental,

physiotherapy, and nursing students in three tertiary schools in Ibadan, Nigeria, on the ethics of euthanasia, and to also explore if their culture and religion support the practice of euthanasia.

## 2. METHODOLOGY

### 2.1 Study Design

This research was a descriptive cross-sectional study.

### 2.2 Study Setting

This study was conducted among dental, medical, physiotherapy, and nursing students from three conveniently selected tertiary institutions in the city of Ibadan, Nigeria. The three selected schools were: the School of Perioperative Nursing (SOPN); the School of Nursing (SON); and the University of Ibadan (UI). The SOPN runs a one-year diploma programme in Perioperative Nursing, the SON runs a three-year diploma programme in General Nursing, while the UI runs a six-year bachelor degree programme in Medicine and Dentistry, as well as a five-year bachelor degree programme in Physiotherapy, and Nursing Science. The clinical students in these three participating schools do receive their clinical training at the University College Hospital (UCH), Ibadan. University College Hospital, Ibadan, is a tertiary health centre in Ibadan, and it is also the first and the biggest tertiary hospital in Nigeria.

### 2.3 Selection Criteria

Only the students that have started their clinical postings were considered eligible to participate in this study. As at the period of data collection process, all the students of the one-year Perioperative Nursing diploma programme, and all the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> year students of the General Nursing diploma programme met the selection criteria. However, not all the UI students of Medicine, Dentistry, Physiotherapy, and Nursing Science met the selection criteria. Only the medical, dental, and physiotherapy students in their 3<sup>rd</sup> and higher years were eligible to participate. As for the students of

Nursing Science, all were eligible except those in the 1<sup>st</sup> year.

## 2.4 Study Tool

The study tool used in this research was a well-structured pre-tested anonymous 16-item questionnaire developed by the researchers through literature review and information obtained from debates on euthanasia among clinical students. The questionnaire first gave the Merriam-Webster definition of euthanasia to each of the participants as “the act or practice of killing or permitting the death of hopelessly sick or injured individuals in a relatively painless way for reasons of mercy” before it further obtained information about: their bio-data; their awareness of the term “euthanasia”; their encounter with terminally ill patient(s); their opinions towards the act of rendering euthanasia to the terminally ill; the support of their religion and culture towards euthanasia; and their opinions about euthanasia, if it should be introduced into the Nigerian health care services or not. Furthermore, the questionnaire assessed their opinions about rendering euthanasia on request by/to the terminally ill using a five – point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; and 5 = strongly agree.

## 2.5 Sample Size Determination

The sample size was calculated using the Leslie formula:

$$N = \frac{Z^2 P(1 - P)}{T^2}$$

Where N is the sample size, Z is the level of significance that corresponds to the level of significance that corresponds to the 95% confidence level (that is, Z = 1.96), P is the prevalence taken as 58% [11], and T is the tolerance error (0.05).

The calculated sample size equals 374.

## 2.6 Ethical Considerations

Approval to conduct this study was obtained from the Institutional Review Committee, Ministry of Education, Ibadan, Nigeria (Ref: INS.2959/80). The aims and objectives of the study were clearly stated to the potential participants, and only those that volunteered to participate were recruited for the study. The identities of all the participants were also kept confidential.

## 2.7 Data Collection and Analysis

These students were approached in their various classrooms which were located within the hospital premises. The aims and objectives of the study were explained to them; they were also informed that their participation was voluntary. Only 450 students were randomly recruited to participate in this study. Questionnaires were issued to each participant after obtaining verbal informed consent. All questionnaires were self-administered and only 433 were returned. All data were collected in October and November, 2014. Seven questionnaires out of the 433 returned questionnaires were discarded because they were not properly filled. Only the data from the remaining 426 questionnaires were entered into the Microsoft Excel and the SPSS version 16 software for statistical analysis. Frequency distributions were determined for all variables, the arithmetic mean of the ages, and the mean and modal Likert scores of the participants' opinions were also determined. A mean Likert score <3 indicates disagreement, a mean score of 3 indicates indecision, while a mean Likert score >3 indicates agreement. Also, the lower the mean Likert score, the higher the level of disagreement among our respondents, and vice-versa. The tests of association between qualitative variables were determined using Chi square test and a p – value <0.05 was considered to be statistically significant.

## 3. RESULTS

The majority (88.7%) of our respondents were single, and 60.0% were females. About a third of them (31.2%) were medical students, and those studying to obtain a diploma in General Nursing were younger (mean age = 19.6 years) than those studying other clinical courses (Table 1).

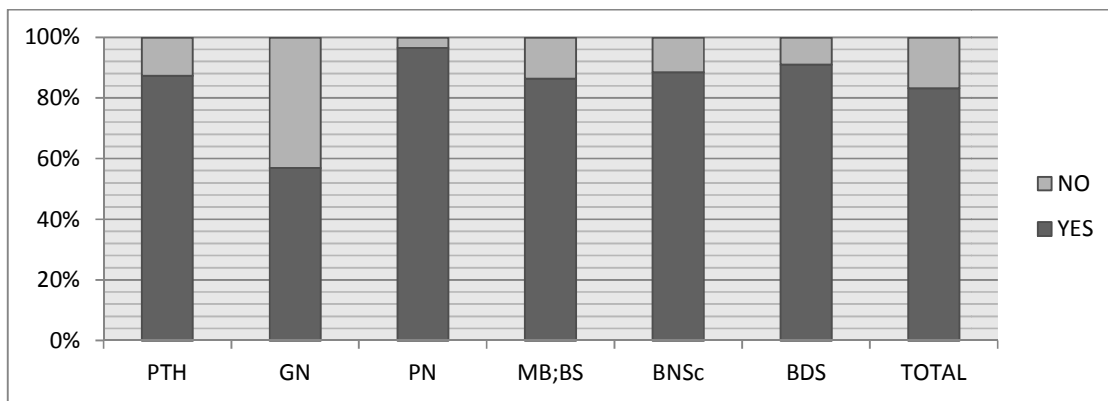
Almost all (96.6%) the respondents studying Perioperative Nursing have heard of the term “euthanasia”, while only just 56.9% of those studying General Nursing have heard of “euthanasia” (Fig. 1).

Almost all (92.5%) the respondents studying Medicine & Surgery have had an encounter with a terminal ill patient during the course of their clinical training, while only just 66.7% of the respondents studying Physiotherapy have had such experience (Fig. 2).

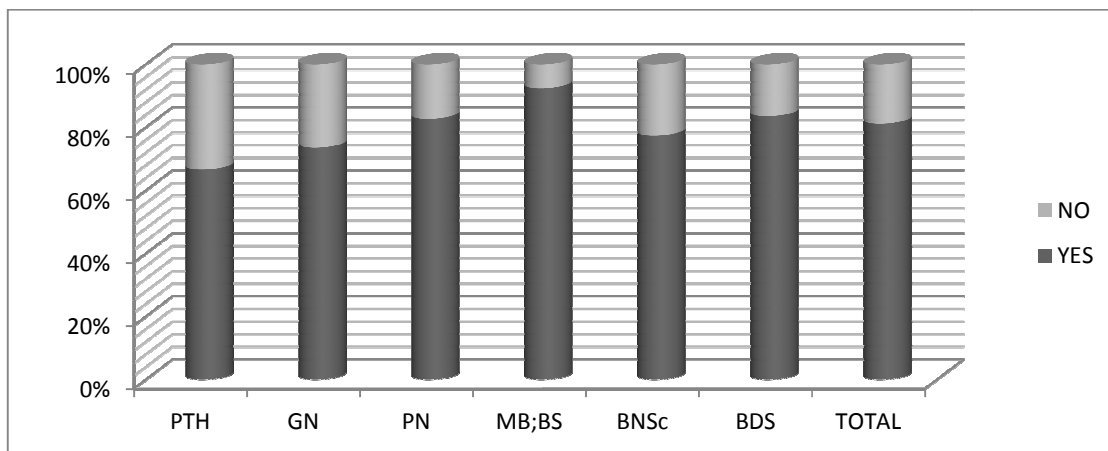
**Table 1. Socio-demographic characteristics of the respondents**

Characteristics	PTH [N=63]	GN [N=72]	PN [N=29]	MB;BS [N=133]	BNS [N=62]	BDS [N=67]	Total [n=426]
<b>Gender</b>							
Male	23 (36.5)	19 (26.4)	8 (27.6)	76 (57.1)	6 (9.7)	38 (56.7)	170 (40.0)
Female	40 (63.5)	53 (73.6)	21 (72.4)	57 (42.9)	56 (90.3)	29 (43.3)	256 (60.0)
<b>Marital status</b>							
Single	55 (87.3)	55 (76.4)	16 (55.2)	132 (99.2)	53 (85.5)	67 (100.0)	378 (88.7)
Married	8 (12.7)	3 (4.2)	13 (44.8)	1 (0.8)	8 (12.9)	0 (0.0)	33 (7.7)
Not specified	0 (0.0)	14 (19.4)	0 (0.0)	0 (0.0)	1 (1.6)	0 (0.0)	15 (3.5)
<b>Mean age*</b>	22.8	19.6	28.2	23.0	23.8	23.8	23.5

\*Age in years; n= total number of all the respondents; N= total number of respondents in each category; PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB,BS=medical students; BNSc=nursing science students; BDS=dental students



**Fig. 1. Response of respondents to the variable “Have you heard of euthanasia before”**  
 PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB,BS=medical students; BNSc=nursing science students; BDS=dental students



**Fig. 2. Response of the respondents to the variable “In your medical training so far, have you had an encounter with a patient with terminal illness before?”**  
 PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB,BS=medical students; BNSc=nursing science students; BDS=dental students

Table 2 shows the mean and modal Likert scores of the opinions of our respondents towards the act of rendering euthanasia to the terminally ill requested by the patient, the patient’s parent,

spouse, or child. The mean Likert scores of the responses of the respondents studying General Nursing, Perioperative Nursing, Nursing Science, and Physiotherapy were <3. For the medical and dental students, they have mean Likert scores >3 in their responses towards rendering euthanasia to the terminally ill, if requested by the parent or child of such patient.

Furthermore, many of our respondents indicated that the practise of euthanasia is forbidden by their culture (46.2%) and religion (48.4%) (Table 3). Also, less than one-fourth (22.1%) of our respondents recommended that the practice of euthanasia should be encouraged in Nigeria (Table 4).

#### 4. DISCUSSION

To the best of the authors' knowledge, this is the first Nigerian study that compared the opinions of medical, dental, physiotherapy, and nursing students on the practice of euthanasia. In Nigeria, the practice of euthanasia is illegal and its practice remains a debate among students of clinical sciences.

Our findings revealed that our respondents' awareness rate on euthanasia is quite high (83.1%), and it is higher than that documented among students in a public medical school in Karachi (77%), Pakistan [16]. Furthermore, most of them had seen at least an individual with a

terminal ailment during the course of their current medical education. This indicates that they had experienced a situation whereby a terminally ill individual could not be cured of the disease. Nevertheless, the majority of them were of the opinion that it is unethical to render euthanasia to the terminally ill, irrespective of who requested for it being done.

It is also noteworthy that religion and culture play strong roles of influence on peoples' attitudes towards euthanasia [17,18]. The religion and cultural norms of many of our respondents considered the act of euthanasia as a taboo, and this may also be a contributory factor why our respondents considered the act of euthanasia to be immoral. Kitchener [19], and Musgrave and Soudry [20] also reported similar findings in their study on nurses, where they observed that religious nurses were less likely to favour euthanasia and its legalization, compared to those with no religion.

Furthermore, less than half of our respondents were of the opinion that euthanasia should not be legalised in Nigeria. However, a higher rate (67%) of such opinion was reported by Leppert et al. [21], among Polish medical students, whereas only 27% of medical students in Karachi [16], Pakistan, had such opinion. This indicates that the practice of euthanasia is not supported by many clinical students, although some were in support of it.

**Table 2. Mean and modal Likert scores of responses of the respondents on some ethical issues concerning rendering euthanasia on request**

Variables	Mean <sup>#</sup> (and modal) <sup>*</sup> Likert Score					
	PTH	GN	PN	MB, BS	BNS	BDS
It is morally right to render euthanasia to a patient with terminal illness, if he/she requests for such	2.61 (4, 1)	2.49 (2)	2.66 (2)	2.77 (3)	2.56 (1)	2.72 (4)
It is morally right to render euthanasia to a patient that is brain-dead, if his/her parent requests for such	2.75 (4)	2.35 (1)	2.83 (2)	<b>3.16 (4)</b>	2.81 (4)	<b>3.21 (4)</b>
It is morally right to render euthanasia to a patient that is brain-dead, if his/her spouse requests for such	2.42 (2)	2.22 (2)	2.48 (2)	2.94 (4)	2.40 (2)	2.91 (4)
It is morally right to render euthanasia to a patient that is brain-dead, if his/her children requests for such	2.53 (4)	2.26 (1)	2.59 (2)	<b>3.03 (4)</b>	2.48 (2)	<b>3.03 (4)</b>

PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB,BS=medical students; BNSc=nursing science students; BDS=dental students. <sup>#</sup>A mean Likert score <3.00 represents disagreement, a mean Likert score of 3.00 represents indecision, and a mean Likert score >3.00 represents agreement. <sup>\*</sup>Modal Likert scores: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; and 5 = strongly agree

**Table 3. Impact of culture and religion on respondents over the practice of euthanasia**

Variables		PTH [N=63]	GN [N=72]	PN [N=29]	MB, BS [N=133]	BNS [N=62]	BDS [N=67]	Total [N=426]
Does your culture forbid you to render euthanasia? (p =0.32)*	Yes	28 (44.4)	39 (54.2)	18 (62.1)	51 (38.3)	37 (59.7)	24 (35.8)	197 (46.2)
	No	8 (12.7)	10 (13.9)	3 (10.3)	13 (9.8)	6 (9.7)	10 (14.9)	50 (11.8)
	IDK	27 (42.9)	23 (31.9)	8 (27.6)	69 (51.9)	19 (30.6)	33 (49.3)	179 (42.0)
Total		63 (100.0)	72 (100.0)	29 (100.0)	133 (100.0)	62 (100.0)	67 (100.0)	426 (100.0)
Does your religion forbid you to render euthanasia? (p <0.001)*	Yes	41 (65.1)	21 (29.2)	25 (86.2)	39 (29.3)	49 (79.0)	34 (50.7)	209 (49.1)
	No	6 (9.5)	49 (68.1)	2 (6.9)	84 (63.2)	5 (8.1)	7 (10.4)	153 (35.9)
	IDK	16 (25.4)	2 (2.7)	2 (6.9)	10 (7.5)	8 (12.9)	26 (38.8)	64 (15.0)
Total		63 (100.0)	72 (100.0)	29 (100.0)	133 (100.0)	62 (100.0)	67 (100.0)	426 (100.0)

IDK=I don't know; PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB, BS=medical students; BNSc=nursing science students; BDS=dental students. \*Chi square test

**Table 4. Respondents opinion about the introduction of euthanasia practice in Nigeria**

Variables		PTH [N=63]	GN [N=72]	PN [N=29]	MB, BS [N=133]	BNS [N=62]	BDS [N=67]	Total [N=426]
The practice of euthanasia should be encouraged in Nigeria (p =0.006)*	Yes	20 (31.7)	9 (12.5)	3 (10.3)	26 (19.6)	18 (29.0)	18 (26.9)	94 (22.1)
	No	28 (44.4)	49 (68.0)	14 (48.3)	49 (36.8)	32 (51.6)	27 (40.3)	199 (46.7)
	UD	15 (23.9)	14 (19.4)	12 (41.4)	58 (43.6)	12 (19.4)	22 (32.8)	133 (31.2)
Total		63 (100.0)	72 (100.0)	29 (100.0)	133 (100.0)	62 (100.0)	67 (100.0)	426 (100.0)

NR=no response; UD=undecided; PTH=physiotherapy students; GN=general nursing students; PN=perioperative nursing students; MB,BS=medical students; BNSc=nursing science students; BDS=dental students. \*Chi square test

## 5. LIMITATIONS OF STUDY

This study only explored the opinions of the study participants using quantitative means, and it did not explore the reasons behind the opinions of the study participants. Hence, there exists the need to explore these reasons using qualitative research methods or mixed methods.

## 6. RECOMMENDATIONS

From our findings, not all students were aware of euthanasia. Therefore, we would like to recommend that euthanasia should be well covered in the curriculum of the surveyed clinical students, with its associated ethical and legal issues elaborately discussed.

## 7. CONCLUSION

Euthanasia still remains as a strong debate among the surveyed clinical students. The majority of our respondents were of the opinion that the act of euthanasia is morally wrong. We found religion and culture to play strong roles in influencing their opinions on ethics of euthanasia.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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