

# Knowledge of medical ethics among Nigerian medical doctors

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## ABSTRACT

**Background:** The knowledge of medical ethics is essential for health care practitioners worldwide. The main objective of this study was to evaluate the knowledge of medical doctors in a tertiary care hospital in Nigeria in the area of medical ethics. **Materials and Methods:** A cross-sectional questionnaire-based study involving 250 medical doctors of different levels was carried out. The questionnaire, apart from the bio-data, also sought information on undergraduate and postgraduate training in medical ethics, knowledge about the principles of biomedical ethics and the ethical dilemmas encountered in daily medical practice. **Results:** One hundred and ninety (190) respondents returned the filled questionnaire representing a response rate of 76%. One hundred and fifty-two respondents (80%) have had some sort of medical ethics education during their undergraduate level in the medical education. The median duration of formal training or exposure to medical ethics education was 3.00 hours (range: 0-15). One hundred and twenty-nine respondents have read at least once the code of medical ethics of the Medical and Dental Council of Nigeria while 127 (66.8%) have some general knowledge of the principles of biomedical ethics. The breakdown of the identified ethical dilemmas shows that discharge against medical advice was the most identified by the respondents (69.3%) followed by religious/cultural issues (56.6%) while confidentiality was recognized by 53.4%. **Conclusion:** The knowledge of medical ethics by Nigerian medical doctors is grossly inadequate. There is an urgent need for enhancement of the teaching of the discipline at both undergraduate and postgraduate levels in Nigeria.

**Key words:** Biomedical ethics, developing countries, ethical dilemma, medical education, physicians

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## INTRODUCTION

Medical ethics is a form of applied ethics that is concerned with moral values and judgments as it applies to medicine. It dates back to ancient civilization as exemplified by the Hippocratic Oath or its adaptations which is still very relevant and is sworn by new medical doctors in many countries of the world today.<sup>1</sup> The importance of this discipline has grown over the last few decades because of development in the field of medical technology, genetics, organ transplantation, reproductive technology, and stem cell research.<sup>2</sup> Also, questions are being asked on issues relating to physician-patient relationship, end of life, and

equitable access to health care.<sup>3-5</sup> Today, medical ethics is a core component of the medical school curriculum in the USA, Canada, and many European countries.<sup>6,7</sup> Though medical ethics exists as part of the curriculum in medical schools in Nigeria, the emphasis placed on its formal teaching is not much since there are not many resource persons who are trained specifically in bioethics or medical ethics. It is therefore assumed that most of what is learned by the students is through the so-called hidden curriculum.<sup>8</sup> This is a form of informal learning in which teachers are seen as role models by the students who may take after their attitudes and behaviour. Studies in the USA by Sulmasy and co-workers explored the knowledge and attitude of house physicians and faculty on issues relating to medical ethics.<sup>9,10</sup> Similar studies have also been carried out in Pakistan, India, and the West Indies.<sup>11-13</sup> The main objective of this study was to assess the knowledge base and attitudes of different categories of Nigerian medical doctors (interns, residents, and consultants) toward medical ethics and the ethical dilemmas encountered in their daily clinical practice. This we hope will serve

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as a template upon which further investigations and appropriate interventions can be based.

## MATERIALS AND METHODS

The study was a cross-sectional questionnaire-based study carried out among medical doctors in a health care facility rendering both secondary and tertiary care in South-west Nigeria. The study included all categories of medical doctors-house officers (interns), medical officers, resident doctors (registrars and senior registrars), and consultants. Medical officers are post-internship doctors who are yet to commence residency training.

Ethical approval was obtained from the Hospital Research Ethics Committee before the commencement of the study.

### Data analysis

Data were analysed for bio-data, response regarding undergraduate and postgraduate training in medical ethics, respondents' attitude to medical ethics training, knowledge about the principles of biomedical ethics, and the ethical dilemmas encountered in daily medical practice IBM SPSS version 19. Descriptive statistics was used to obtain the general characteristics of the study participants. The Chi-square test was used to determine the level of significance of groups of categorical variables. *P* values <0.05 were considered significant.

## RESULTS

One hundred and ninety (190) respondents returned the filled questionnaires representing a response rate of 76%. Male respondents were 149 (79.7%) while the remaining 20.3% represented the female gender. The breakdown of the respondents according to their positions is as follows: House physicians (50.6%), medical officers (4.2%), registrars (35.8%), senior registrars (4.2%), and consultants (5.3%). Table 1 shows the distribution of respondents by gender and

position. Distribution by medical specialties among the residents and consultants revealed that family medicine had 36 (41.4%) respondents, which was the highest, followed by Surgery with 16 (18.4%) while respondents from Obstetrics and Gynecology were 14 (16.1%). There were 12 respondents (13.8%) from Internal Medicine while Psychiatry residents accounted for the remaining 9 (10.3%). House officers (interns) were not classified by medical specialties as they mandatorily rotated through the different units.

One hundred and fifty-two respondents (80%) have had some medical ethics education during their undergraduate medical education. The median duration of formal training or exposure to medical ethics education was 3.00 hours (range: 0-15). For majority of the respondents (86%), this exposure was grossly inadequate and all participants would prefer a standardized and expanded curriculum. Over half of the respondents (50.5%) have personally updated their medical ethics knowledge post-graduation, by reading books and medical journals (32.3% and 26.9% respectively), attendance of conferences (24.7%), and through online ethics courses (4.3%). Medical ethics as a discipline was considered to be very important for the practice of medicine by 163 (85.8%) respondents while the remaining doctors thought of it as just important. One hundred and twenty-nine respondents have read the code of medical ethics of the Medical and Dental Council of Nigeria at least once, while 127 (66.8%) have some general knowledge of the principles of biomedical ethics. The breakdown of the respondents' knowledge of the individual principles (respect for persons-autonomy, beneficence, non-maleficence, and justice) are shown in Table 2. The summary of findings from the table shows an appreciable difference in the knowledge base of junior doctors (house officers, medical officers and registrars) when compared to the more senior ones (senior registrars and consultants) with statistical significance especially for the core ethical principles,

**Table 1: Distribution of respondents by gender and positions**

Gender	House officer	Medical officer	Registrar	Senior registrar	Consultants
Male	69	7	58	6	9
Female	26	1	10	0	1
Total (%)	95 (50.8)	8 (4.2)	68 (36.4)	6 (3.2)	10 (5.3)

**Table 2: Knowledge of principles of biomedical ethics by different categories of medical doctors**

Principles	Autonomy		Beneficence		Non-maleficence		Justice	
	Yes	No	Yes	No	Yes	No	Yes	No
House officers	56 (58.9)	39 (41.1)	43 (45.3)	52 (54.7)	35 (36.8)	60 (63.2)	25 (26.3)	70 (73.7)
Medical officers	3 (37.5)	5 (62.5)	2 (25)	6 (75)	1 (12.5)	7 (87.5)	1 (12.5)	7 (87.5)
Registrars	33 (48.5)	35 (51.5)	31 (45.6)	37 (54.4)	27 (39.7)	41 (60.3)	20 (29.4)	48 (70.6)
Senior registrars	6 (75)	2 (25)	8 (100)	0 (0)	8 (100)	0 (0)	8 (100)	0 (0)
Consultants	7 (70)	3 (30)	8 (80)	2 (20)	5 (50)	5 (50)	6 (60)	4 (40)

**Table 3: Ethical dilemma encountered by the medical doctors**

	Informed consent		Confidentiality		Resource allocation		Conflict of interest		DAMA		Religion and culture		End of life	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
House officers	37 (38.9)	58 (61.1)	41 (43.1)	54 (56.9)	16 (16.8)	79 (83.2)	26 (27.4)	69 (72.6)	63 (66.3)	32 (33.7)	45 (47.4)	5 (5.2.6)	25 (36.2)	69 (63.8)
Medical officers	4 (50)	4 (50)	5 (62.5)	3 (37.5)	2 (25)	6 (75)	2 (25)	6 (75)	5 (62.5)	3 (37.5)	8 (100)	0	3 (37.5)	5 (62.5)
Registrars	36 (52.9)	32 (47.1)	41 (60.3)	27 (39.7)	15 (22.1)	53 (77.9)	28 (41.2)	40 (58.8)	51 (75)	17 (25)	39 (57.4)	29 (42.6)	25 (36.8)	43 (63.2)
Senior registrars	5 (62.5)	3 (37.5)	7 (87.5)	1 (12.5)	3 (37.5)	5 (62.5)	3 (37.5)	5 (62.5)	5 (62.5)	3 (37.5)	7 (87.5)	1 (12.5)	6 (75)	2 (25)
Consultants	6 (60)	4 (40)	7 (70)	3 (30)	3 (30)	7 (70)	5 (50)	5 (50)	7 (70)	3 (30)	8 (80)	2 (20)	4 (40)	6 (60)

DAMA – Discharge against medical advice

i.e., beneficence, non-maleficence, and justice (*P* value of 0.005, 0.004, and 000, respectively).

Ethical dilemmas encountered in daily medical practice of the doctors were identified by 77.9% of house officers, 91.2% of registrars and 100% of medical officers, senior registrars and consultants. The breakdown of the identified ethical dilemma shows that discharge against medical advice was the most identified by the respondents (69.3%) followed by religious/cultural issues (56.6%), while confidentiality was recognized by 53.4%. Other types of ethical dilemmas were informed consent issues (46.6%), truth telling (40.7%), conflict of interest (33.9%), end of life issues (33.3%), and allocation of resources (20.6%). Issues dealing with confidentiality, discharge against medical advice (DAMA), religion and culture, and informed consent were the most recognized by the respondents, while their knowledge about just allocation of resources, conflict of interest, and end of life matters was poor [Table 3].

## DISCUSSION

The majority of respondents in this study were junior doctors (house officers and registrars), a normal trend in many tertiary health care facilities especially those where postgraduate residency training is being done. Male doctors also predominated among the respondents probably because they are more in number in the system than the female doctors. The department of family medicine had the highest number of respondents (41.4%) among the resident doctors (registrars/senior registrars) which is a reflection of the situation in the hospital. It could also be argued that this group of doctors was very much interested in the subject of the study.

A significant number among the respondents (69%) have read the code of medical ethics of the Medical and Dental Council of Nigeria wholly or partially, a finding close to that of Brogen *et al.*, where 59.7% of Indian medical doctors have read their national code of medical ethics.<sup>12</sup> A similar study carried out in Pakistan showed that only 43.5% of the doctors have read their national

code of medical ethics.<sup>11</sup> It is worthy of note that all newly inducted medical doctors in Nigeria are given the Code of Medical Ethics booklet together with their professional registration licenses but this does not translate to a commensurate level of interest. In our study, about 80% of the respondents have some form of formal teaching in medical ethics with a median duration of 3 h (range: 0-15 h). In an earlier quoted study done in a tertiary health care facility in India, 76.5% of the participating doctors had some form of formal instruction in medical ethics while only about 10% of medical doctors in a Pakistani study had any form of undergraduate teaching in medical ethics.<sup>11,12</sup> The undergraduate curriculum on medical ethics was deemed grossly inadequate by 86% of our respondents, with 69.2% of respondents in the Indian study having a similar opinion. All respondents in the study agreed on the need for an expanded and well-structured program on medical ethics to be included in the undergraduate and postgraduate medical curriculum. Several studies carried out in different parts of the world have shown that there is a need for properly structured and cultural relevant undergraduate and postgraduate medical ethics education to enable medical doctors understand and cope with constantly changing ethical dilemmas in their daily practice.<sup>14-16</sup> In our study, 50.5% of the respondents have personally upgraded their knowledge of medical ethics mainly through reading of books, medical journals, and attending conferences, while only a very small number of them have availed themselves of the opportunities of free online courses on medical ethics. The benefit of online ethics courses includes its flexibility and standard of content among others.<sup>17</sup> This is an area that should be explored especially by postgraduate doctors until such a time when a well-structured program is put in place by the postgraduate medical colleges.

About 66.8% of the respondents have heard about the principles of biomedical ethics, but there was a significant difference in their level of knowledge of the individual principles. While 55.6% of respondents knew about the principle of respect for persons (autonomy), 48.7% were aware of the principle of beneficence. Non-maleficence was known to 40.2% of respondents, while only 31.7%

had any knowledge about the principle of justice. This level of knowledge is worrisome as it implies that most of the doctors will find it difficult to identify obvious cases with ethical dilemmas and this will affect the way these cases are managed. This also has implications for patient's outcomes, the doctor-patient relationship, and indeed the social aspects of this interaction. Not knowing about the principle of autonomy and how it is applicable in practice could create issues especially when dealing with third parties and families. This will also affect the physicians negatively especially when dealing with informed consent issues. Ignorance about the principle of justice would not help the health care system as it indicates that available resources will not be used judiciously. This is of particular importance especially as we are discussing issues pertinent to a resource-poor setting.

One hundred and sixty-two respondents (85.7%) claimed to have encountered one or more ethical dilemma during their clinical practice. Issues dealing with confidentiality, discharge against medical advice (DAMA), religion and culture, and informed consent were the most recognized by the respondents, while their knowledge about just allocation of resources, conflict of interest, and end of life matters was poor. In a study carried out among public and private healthcare practitioners in Saudi Arabia, patient rights, equity of resources (just allocation of resources), confidentiality, and patient safety were the top four dilemma encountered by respondents.<sup>18</sup> It could be deduced from the above that the lack of knowledge of the principles of biomedical ethics correlates to a significant extent with the identification or otherwise of ethical dilemmas in clinical practice. It is not surprising that discharge against medical advice and religious/cultural issues were the most identified ethical dilemmas; in the context of developing countries like Nigeria, the family and clan still plays a very important role in decision making regarding individuals, hence the possibility of ethical conflicts. Religion and traditional cultural belief is also a way of life among most indigenous African population hence the conflicts with orthodox medicine and its practitioners. Ethical dilemma that are based on religious and cultural differences are also common in most multi-cultural and multi-religious societies of the West.<sup>19</sup> Truth telling, end of life issues, and allocation of resources were also not identified as ethical issues by a majority of the respondents. In the case of truth telling, this could be due to the predominantly paternalistic way of practice by most physicians in developing countries. It is believed that sometimes the patient or his relatives cannot handle the truth, so full disclosure of his/her condition is not done. This is at variance with practice in many developed countries where the model is now that of shared decision making.<sup>20,21</sup> The inability of the respondents to recognize end of life issues could also be embedded in our religion and traditional beliefs. Here in Africa, it is believed that children must take care of their

parents till death, so the burden remains on the families. Also, the issues of living wills (advanced directives) and euthanasia are not yet topical in the setting of Nigeria. The lack of knowledge about allocation of resources as an ethical issue is mainly due to the fact that rationing of healthcare resources is not being practiced to a large extent in many developing countries like Nigeria. Also, health insurance coverage is limited to a very small fraction of the population, hence, the negligible influence of the insurance industry on this important dilemma.

## CONCLUSION

The knowledge of medical ethics by Nigerian medical doctors is grossly inadequate. In a globalized world with rapidly emerging new medical technologies and its associated ethical challenges, there is need for a review of the medical curriculum in Nigeria. There is also a need for continuing medical ethics education for medical doctors at postgraduate level. Availability of postgraduate diploma/ masters program in Healthcare Ethics or Bioethics will also be an avenue for faculty staff and resident doctors to develop themselves further in this very important discipline.

## Strength and limitations of the study

This study has shown in general the knowledge and attitudes of medical doctors toward medical ethics. The main strength of this study is that it explored a very foundational aspect of medicine which should continually be developed. The fact that the respondents had their undergraduate and postgraduate medical education in about eight different institutions makes our findings more generalizable. The limitations are those of bias in answering the questions and accuracy of recall of information.

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