Perception of Medical Errors among Doctors Practicing in a State in South-East Nigeria

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ABSTRACT

Background: Majority of medical errors are harmless while those that are adverse could be a source of worry. Different incidence and patterns have been recorded worldwide. **Objective**: The study aims at evaluating the pattern, knowledge and perception of medical errors among doctors practicing in Anambra State, Nigeria. **Materials and Methods:** A cross-sectional questionnaire-based study done over a six-month period. Ethical approval was collected from the Ethics Committee of Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka. Results were analyzed by simple descriptive statistics using SPSS version 25 while data were presented in tables and charts. **Results:** A total of 239 doctors participated in the study with a mean age of 38± 10.7 years. A total of 42.4% of the respondents were male resident doctors, while the mean post-graduation year was 11.1±9.9 years. Most of the participants (97.5%) were aware of medical errors. Most respondents (89.1%) also agreed that doctors commit medical errors and with caution, this can be minimized. Medical prescription was the most common source of medical error. More people did not know about wrong side surgery. About 71% did not believe that life-threatening errors should be disclosed to the patients. About 64.5% of the respondents had positive attitude toward disclosure. After disclosure, 60% were anxious. One respondent was convicted for a medical error. **Conclusion:** Most doctors in Anambra are aware of medical errors, while prescription error tops the list. Anxiety results from disclosure of medical errors by the doctors involved. The risk of litigation was real..

Keywords: Doctors; Errors; Medical; Nigeria; South-East

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INTRODUCTION

Medical errors are unwanted in medical practice. They involve the failure to complete the intended plan of action or implementing the wrong plan to achieve an aim (errors of omission and commission).[1,2] It occasionally involve a deviation from the standardized protocol of care with or without attendant harm.[3] Majority of medical errors are harmless but

those that are adverse to patients' health are a source of worry and have been on the increase.[4] Some medical errors cause serious public health challenges with attendant substantial threat to life and cause of public distrust. The doctrine of 'first do no harm' appears to conveniently place medical errors in the negative, hence making it an issue that is discussed with restraint in the medical landscape. The expected gain from the error is lost in the face of negative connotation.

The age-long aphorism 'to err is human' also appears to downplay the unassailable contribution of systemic factors while taking the human factor to the guillotine.

Despite the under-reporting, medical errors are now a leading cause of death and a considerable loss of income to the patient, society and nation. [5-7] In the United States, it is estimated that 1 in 300 patients die from mistakes, while 24 % of people say they or their family members have been harmed by medical errors.[8] World Health Organization estimated that 1 in 10 patients are harmed while receiving hospital care. In African regions, the risk of being harmed in a hospital is even higher while the risk of healthcare-associated infections are twenty times higher. King *et al* found that 7 out of every 10 deaths in Nigeria is rooted in medical errors, given that some health facilities are manned by quacks.[9] Iloh *et al* found a prevalence rate of 42.4% among Abia State-based doctors he interviewed. [10] The incidence and pattern appear to vary with regions.[7,10] Medication errors have been noted to be relatively result from individual practitioner factors such as fatigue, inadequate knowledge/training, and environmental factors such as workplace distraction and high workload as the major contributors.[7, 10-14] The very low doctors-to-patient ratio in some facilities may also be an important systemic factor contributing the committal of medical errors.[12] The fear of punitive measures and legal action, lack of disclosure policy as well as malpractice insurance may have influenced the disclosure of medical errors to patients. [15] The perception of medical also appears to vary with individuals, institutions and regions of the world. [16-19] The study aims at evaluating the pattern, knowledge and perception of medical errors among doctors practising in Anambra State.

MATERIALS AND METHODS:

Study Design: This was a cross-sectional questionnaire-based study

Study Population: This involves willing registered medical doctors practising in Anambra who voluntarily accepted to participate after giving an informed oral consent. Preformed questionnaires were shared in the meetings of doctors between August 2021 and January 2022. Google forms were also deplored for data acquisition.

Study Site: Anambra State.

Inclusion Criteria: All registered medical doctors who were practicing in Anambra state and were willing to participate in the study after informed consent.

Exclusion criteria: All doctors who withheld consent and those practising outside Anambra State

Sample Technique: Non-random sampling approach whereby all consecutive consenting doctors were enrolled.

Sample size: A total of 239 doctors voluntarily participated in this research

Ethical Approval: Approval was obtained from the Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Awka, Anambra State Ethics Committee.

RESULTS

A total of 239 doctors voluntarily participated in this research. The mean age was 38+/-10.7 years. About 42.4% of the respondent were resident doctors, while the mean years post-graduation was 11.1+/-9.9 years. The other demographic data are shown in

Table 1: Socio-demographic profile of the respondents

Variables		Frequency	Percentage (%)
Gender	Male	177	74.1
	Female	62	25.9
Age in years (mean ± standard deviation)		38.0 ± 10.7	
Cadre of Practice	Intern	54	22.9
	Resident Doctor	100	42.4
	Medical Officer	31	13.1
	Consultant	51	21.6
Years of post-graduation (mean ± standard deviation)		11.1 ± 9.9	
Years in the current cadre (mean ± standard deviation)		4.1 ± 5.8	
Primary Place of Assignment	Public	192	80.7
	Private	12	5.0
	Both	34	14.3

The average duration of practice in the current cadre was 4.1±5.8 years. Most of the participants worked in public hospitals.

Most of the participants were aware of medical errors (97.5%) and most of the participants (89.1%) also agreed that many doctors do commit medical errors and that with caution, could be avoided (61.6%).

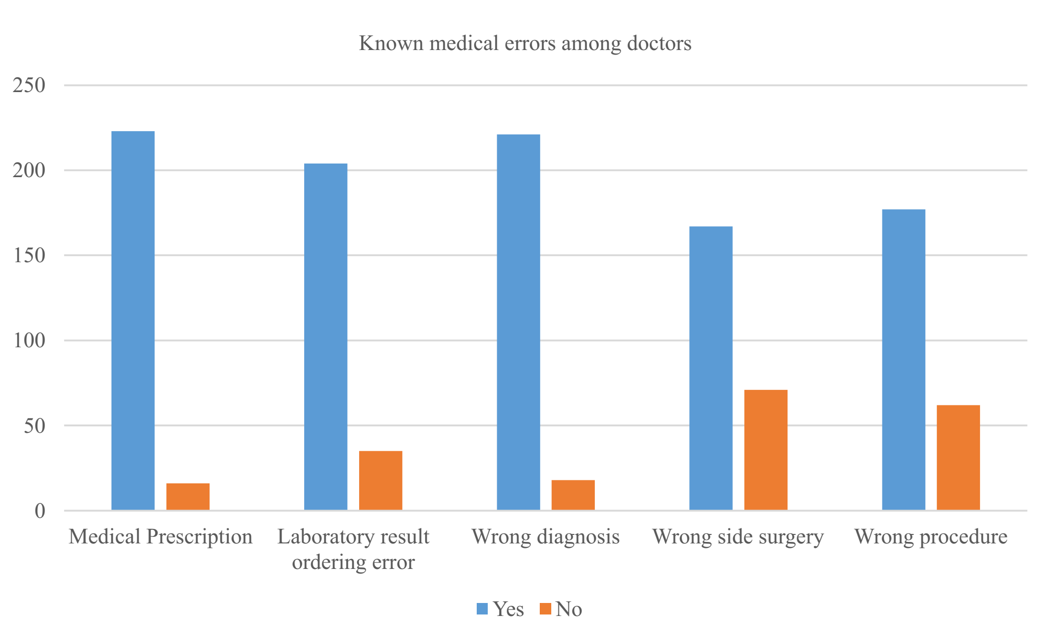

Figure 1: Known medical errors among participants.

About 71% of the participants believed life-threatening errors should be disclosed to the patient while 29% felt otherwise.

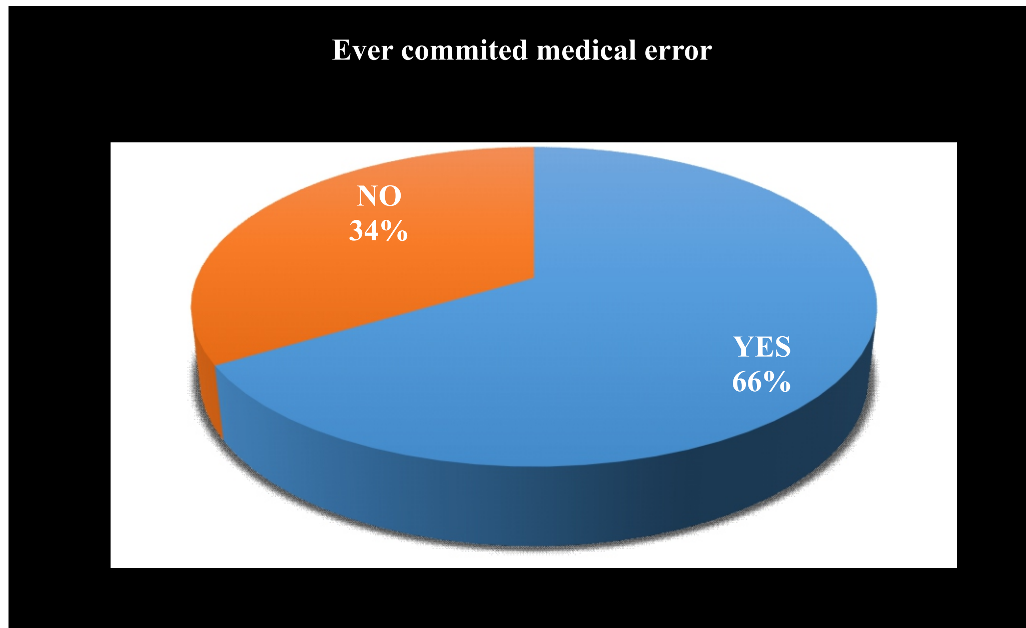

Figure 2: Prevalence of medical errors among respondents

According to the respondents, wrong diagnosis and drug prescription were the most common areas of life-threatening medical error. (details in Figure 3)

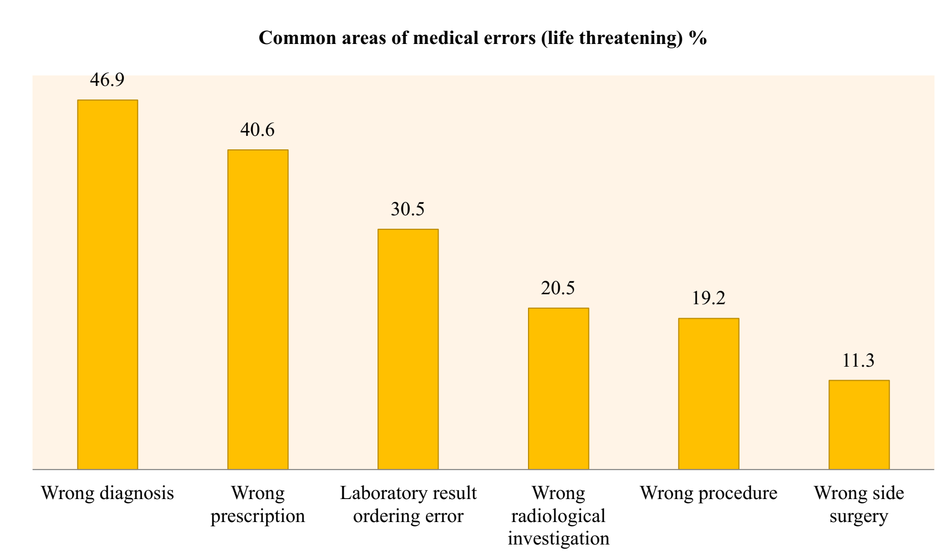

Figure 3: Life threatening medical errors; wrong side surgery was the least common area of medical error

Table 1 (details in Table 1)

About 42.2% of the respondents disclosed life-threatening medical errors occasionally, 19% somewhat infrequently, and 23.8% very infrequently while 8.2 and 6.8% disclosed very frequently and somewhat frequently respectively. A total of 142 (64.5%) of the respondents had a positive attitude towards the disclosure of medical errors while 24.5 % and 10.9% were negative and indifferent respectively. After disclosure, 29.5% of the respondents were depressed, 60% anxious, and 10.5% were indifferent. Only one respondent had faced a law suit and was indicted.

DISCUSSION

Interrogating the quality of care given to patients is a complex and often an emotive adventure especially when some preventable life-changing morbidity or even deaths were already recorded. However, continuous appraisal of the system as well as self-examination of the relevant stakeholders is a sure way to continuously make our hospitals, and by extension, our practice safe for the patients.

In this study, the participants were mostly people below 50 years of age while 74% were male. This appears to be the pattern of age and gender distribution of doctors practising in the state. [20] This is comparable with studies in Uganda and Nigeria. [7, 10] This may be explained by the average life expectancy in the nation as well as the predominance of resident doctors in training in this study. Most of the respondents work in public hospitals. This demographic pattern of doctors working in Anambra State is different from a study by Adinma *et al* in the same state.[20] The difference methodology may account for this.

The awareness of medical errors among the respondent was encouraging, and more than half the respondents believed that errors could be avoided if the doctors were to be more careful. However, there seem to be obvious differences in the level of knowledge across the different cadre of doctors. Most of the respondents were aware that prescription errors can occur, but proportionately, a considerable number of respondents did not know that wrong-side surgery could occur. This is remarkable since some studies have shown that the risk of wrong-side surgery is as high as 25% in the lifetime of a surgeon. [21]

Most people do not disclose life-threatening errors. Less than 15 % disclose life-threatening errors. This pattern of poor disclosure of medical error is similar to observations made in Uganda. This fact is also the documented preference of patients and has professional and legal backing in many countries of the world.,[7,22] Mansour *et al* found a higher rate of disclosure. [23] The attitude towards disclosure was more positive in this study compared with the finding by Iloh *et al*. [10] Continued education and awareness practiced by current crops of doctors in the state may have been responsible for this difference. The study is, however, in agreement with studies done in North America by Gallagher *et al* and Kaldjian *et al*. [24,25] Admiting that error has occurred, apologizing for the error, explaining to the patient and relatives what happened, future preventive measures that could be taken and discussing about compensation for the injury, which may be upfront where necessary. The indictment of an erring doctor may serve as a discouragement to the disclosure of medical errors, and may set the tone for a repeat. [26,27]

The sample size was small and may not represent the true picture of medical error in the state. The responses were also subjective as they were personal experiences of the participants and could not be verified.

CONCLUSION

Medical errors happened in the day-to-day practice among the participants. There was an encouraging level of awareness and the need to minimize it. Most participants were aware of prescription errors but wrong side surgery was not well known among the participants. Most people would rather not disclose life-threatening errors. This may be due to the anxiety over the possible consequences. There was a risk of litigation upon disclosure of medical error. It is however highly recommended that a larger

sample size, with adequate randomization, may be more representative of the true picture of medical errors in the state. Continued Medical Education for health workers on the management of medical errors is necessary. This will serve in reducing the occurrence and fostering physician-patient relationships.

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Author contributions
NSPU conceptualized, designed the study, implemented the project and also revised the manuscripts. EOA, MVA conceptualized and designed the study. EJKC, EOC, NGI and SNE contributed to the implementation of the project. All authors were involved in the writing and revision of the manuscript. The authors read, approved the final manuscript and agree to be accountable for all aspects of the work.

Data availability
Example: The data used to support the findings of this study are available from the corresponding author upon reasonable request

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Conflict of Interest: None

Ethical approval: This study was approved by the Ethic Committee of Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Awka, Anambra State Ethics Committee.

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