

## Knowledge of recent medical graduates and views of stakeholders and teachers regarding medical ethics and professionalism in Bangladesh

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### Abstract

Medical education aims to produce competent medical professionals and gives emphasis on competency-based learning in Bangladesh. Medical ethics and professionalism are considered as a core competency. A competent physician can ensure patient-centered health care system. This was an effort to obtain data regarding the knowledge of recent medical graduates and the opinion of medical educational stakeholders and teachers about medical ethics and professionalism at undergraduate medical education in Bangladesh. This mixed-method study was conducted in two rounds. The Round I was conducted from January 2018 to June 2019 for assessing the knowledge of 308 recent medical graduates towards medical ethics and professionalism. In Round II, key informant interviews were conducted among 30 medical educational stakeholders and teachers from July 2020 to December 2020. Data were collected by pre-tested self administered semi-structured questionnaire and interview guidelines. The percentages of recent medical graduates who could give correct answers regarding autonomy, justice, presenting a subject to visual social media, breaching of confidentiality, organ donation and medical certificate were 19.8%, 54.9%, 73.1%, 37.3%, 91.6% and 74.4% respectively. Most of the medical educational stakeholders and teachers (80%) expressed their opinion related to curriculum. They also suggested for practicing ethics (20.0%) and training (20.0%). A gap was observed in the knowledge regarding medical ethics and professionalism of recent medical graduates. To improve practice of ethics and professionalism, enhancement of the knowledge by incorporating “medical ethics and professionalism” in curriculum might be considered. A separate compulsory module for training on medical ethics and professionalism can be added at pre-internship period for the recent medical graduates.

**Keywords:** *Medical education, Medical ethics, Professionalism.*

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### Introduction

Medical ethics education is an essential component of graduate medical education and medical professionalism is considered

as a core competency worldwide for medical professionals<sup>1-6</sup>. Knowledge, attitude and skills regarding medical ethics and medical professionalism influence the carrier of physicians. The patients have expectations from the physicians. Much has

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been written about medical ethics and professionalism of the physicians in Bangladesh. As for example, the first line of Bengali 1st paper questions in the Secondary School Certificate (SSC) Examination in the year of 2017 included “Mr. Zahid is a greedy doctor”. This kind of direct attack should not be supported or accepted, even then, this line reflects anger and exploitation against physicians. There are many complaints against the medical practitioners such as the physicians are careless and ignore patients’ rights, presence of other people and physicians do not attend their working place on time<sup>7</sup>. This unhealthy situation is due to lack of knowledge of the physicians about medical ethics and professionalism. The role of medical education in Bangladesh is best assessed by assessing level of knowledge of recent medical graduates, as they just completed the MBBS course. Teaching, modeling and monitoring of professionalism at under-graduate medical education are required to ensure good patient care by future physicians<sup>8</sup>.

To include into undergraduate medical education, evaluation of the existing level of knowledge and attitude of recent graduate as well as their habit of practice of medical ethics and professionalism are necessary. The current study was conducted to assess knowledge of recent medical graduates and to explore opinion of medical educational stakeholders and teachers regarding medical ethics and professionalism.

### Materials and Methods

This was a mixed method study conducted in two rounds. The Round I was conducted to assess the knowledge of 308 recent

medical graduates from 7 medical colleges and in Round II the views of 30 medical educational stakeholders and teachers were explored. The physicians who had freshly passed MBBS course and were doing internship training in various departments of medical colleges were considered here as the recent medical graduates.

In round I, data were collected by using a self administered semi-structured written questionnaire from January 2018 to June 2019 and in Round II, key informant interviews (KII) were conducted among 30 participants, of whom 25 participants were experienced teachers of 7 selected medical colleges and 5 participants were medical educational stakeholders from representative sample of Ministry of Health and Family Welfare, Bangladesh Medical and Dental Council (BM&DC), University of Dhaka and Centre For Medical Education. The key informant interviews were conducted for collecting qualitative data by using the interview guidelines from July 2020 to December 2020.

“Curriculum for Under-graduate Medical Education in Bangladesh- updated 2012”<sup>9</sup> and other literatures were reviewed. The questions for assessing knowledge were from core content of learning Medical Jurisprudence in current curriculum,<sup>9</sup> “Module for Teaching Medical Ethics to Undergraduate” (WHO)<sup>10</sup> and other contemporary literatures related to medical ethics and professionalism. Six questions from principles and elements of medical ethics and professionalism were included in the questionnaire such as autonomy, equality of health services (justice), presenting a patient in visual social media, breaching of confidentiality for benefit of the larger group, duty to the organ donor

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and issuing a medical certificate, which are very essential in physician's daily practice. Descriptive statistics such as frequencies, percentages, mean and standard deviation were calculated by using the SPSS version 20.

The proposal was submitted for ethical approval in academic council of Bangladesh University of Professionals (BUP). After ethical approval, permission was taken from the Ethical Review Committee (ERC) of the selected medical colleges. Roster duty schedule was collected. The research work was explained and permission was sought from the recent medical graduates, the medical educational stakeholders and teachers.

### Questionnaire survey

In questionnaire survey, 308 recent medical graduates were selected from 7 medical colleges (table 1).

**Table 1:** Background characteristics of recent medical graduates (n=308)

Background characteristics		Frequency (%),
Age	Mean ± SD (years)	24.19±1.1
Sex	Male	164 (53.2)
	Female	144 (46.8)
Bangladesh University of Professionals (BUP)	Armed Forces Medical College (Government)	34 (11.0)
Chittagong University (CU)	Chittagong Medical College (Government)	47 (15.3)
Dhaka University (DU)	Dhaka Medical College (Government)	58 (18.8)
Dhaka University (DU)	Bangladesh Medical College (Private)	43 (14.0)
	Green Life Medical College (Private)	36 (11.7)
Rajshahi University (RU)	Md. Abdur Rahim Medical College (Government)	45 (14.6)

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## Results

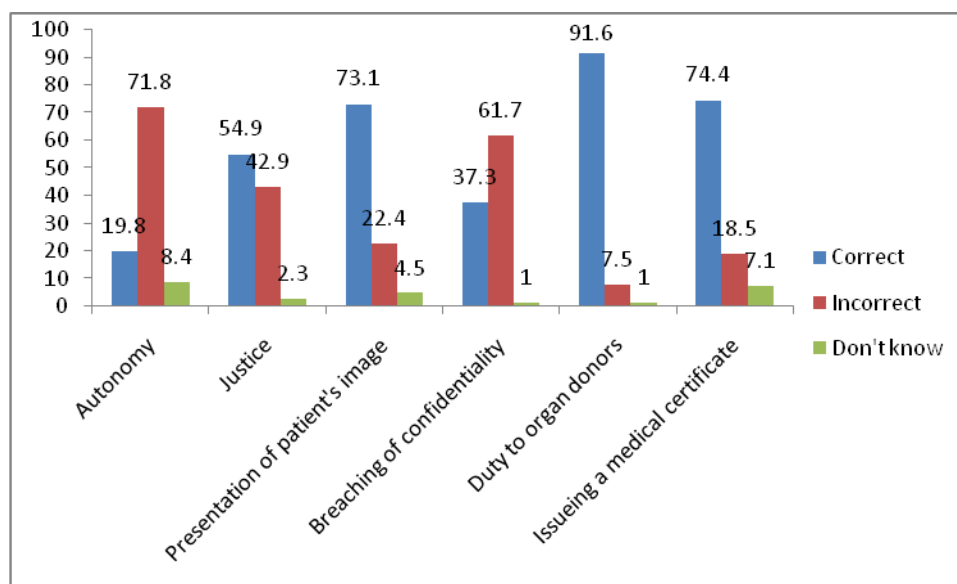
### *The documents review*

While going through the current curriculum, medical ethics and professionalism was found ignored in the subjects of the first phase (first year and second year) in Anatomy, Physiology and Biochemistry. This topic was taught as "hidden curriculum". The students read medical ethics in Medical Jurisprudence in Forensic Medicine in third year of second Phase in MBBS course. About fourteen percent (13.8%) of 195 hours of Forensic Medicine and 0.8% of total 3,380 hours of MBBS course were allocated for teaching-learning medical ethics in the current curriculum<sup>9</sup>.

Rajshahi University (RU)	Khaja Yunus Ali Medical College (Private)	45 (14.6)
Session of study	2006-2007	1 (0.3)
	2007-2008	1 (0.3)
	2008-2009	3 (1.0)
	2009-2010	2 (0.6)
	2010-2011	19 (6.2)
	2011-2012	213 (69.2)
	2012-2013	69 (22.4)

The percentages of recent medical graduates gave correct answer regarding autonomy, equality of health services, presenting a subject to visual social media, breaching of confidentiality can be done for

benefit of the larger group, organ donation and issuing a medical certificate were 19.8%, 54.9%, 73.1%, 37.3%, 91.6% and 74.4% respectively (Figure 1).



**Figure 1:** Respondents' answer to knowledge based questions (n=308)

Sixteen recent medical graduates (5.2%) answered correctly all the six knowledge-based questions. The percentages of recent medical graduates answering the 5 and 4 questions correctly were 17.5% and 30.8%

respectively. On average, they answered correctly to 3.5 (58.3%) questions with SD 1.3 (Table 2). So, there was a gap in knowledge about medical ethics and professionalism among them.

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**Table 2:** Number of correct answers by the recent medical graduates (n=308)

Respondent	Number of question correctly answered : Frequency (%)							p value
	0	1	2	3	4	5	6	
Total	4 (1.3)	24 (7.8)	34(11.0)	81(26.3)	95(30.8)	54(17.5)	16(5.2)	
Mean±SD	3.5±1.3							
Sex								
Male	4 (2.4)	13 (7.9)	19(11.6)	42(25.6)	49(29.9)	28(17.1)	9 (5.5)	0.116
Female	0 (0.0)	11 (7.6)	15(10.4)	39(27.1)	46(31.9)	26(18.1)	7 (4.9)	
Type of medical colleges								
Government	0 (0)	12 (6.5)	9 (04.9)	46(25.0)	66(35.9)	38(20.7)	13 (7.1)	0.000
Private	4 (3.2)	12 (9.7)	25(20.2)	35(28.2)	29(23.4)	16(12.9)	3 (2.4)	
Universities								
BUP	0 (0.0)	2 (5.9)	0 (0.0)	4 (11.8)	11(32.4)	16(47.1)	1 (02.9)	0.001
CU	0 (0.0)	4 (8.5)	1 (2.1)	18(38.3)	12(25.5)	6 (12.8)	6(12.8)	
DU	1 (0.7)	8 (5.8)	20(14.6)	43(31.4)	39(28.5)	18(13.1)	8 (05.8)	
RU	3 (3.3)	10(11.1)	13(14.4)	16(17.8)	33(36.7)	14(15.6)	1 (01.1)	

### Interview findings

The key informant interviews were conducted among 30 medical educational stakeholders and teachers. All the medical educational stakeholders and majority of teachers (72%) were male. The views were identified, coded and presented under following headings.

Less than three-quarter medical educational stakeholders and teachers (23.3%) thought that there was deficiency in knowledge of recent graduate on medical ethics and professionalism. The expressed opinion of more than three-quarter of them (80%) was related to curriculum, such as to keep the subject in professional examinations (26.7%), to integrate in ward teaching (23.3%), integrated teaching (13.3%), scope to have practical application of knowledge (13.3%), during internship (16.7%) and to introduce a separate curriculum (6.7%).

The participants also suggested for practicing ethics by the seniors or teachers (20.0%) and training (20.0%).

### Discussions

It was revealed from documents review that 0.8% of total time for MBBS course was allocated for teaching-learning medical ethics and professionalism<sup>9</sup>.

In current study in questionnaire survey of related knowledge, 19.8% of the recent medical graduates could give the right answer about autonomy. Similar findings were found in Pakistan that most of the physicians had poor knowledge regarding autonomy<sup>11</sup>.

The present study found that the percentage of correct answer regarding equality of health services were 54.9%. In Nigeria, 31.7% of 190 medical doctors had knowledge about justice<sup>12</sup>. In this study, percentage of correct answer regarding

presenting a patient's image to visual social media was 73.1%. Medical ethics and photography was an important topic as it had been playing an important role in the field of forensic, research and education. Many authors described the ignorance of medical ethics in this regard. However, privacy, confidentiality and consent along with masking of the eyes of patients were necessary for protecting the patients from possible harms and problems<sup>13</sup>.

The current study revealed that more than one-third of recent medical graduates (37.3%) were correct to the question regarding conditions where breaching of confidentiality can be done. The findings regarding the breaching of confidentiality for benefit for the larger group was similar to Pakistan where correct response of house officers, postgraduate residents and consultants on breaching confidentiality were 10%, 63.6% and 50% respectively<sup>11</sup>. According to General Medical Council (GMC), breaching confidentiality can be done for the public interest. For effective control of HIV/AIDS contact tracing was necessary. So, patients must get the opportunity for giving consent for disclosure<sup>14</sup>.

In this study, percentage of correct answer regarding organ donation was 91.6%. The need for organs was increasing. If the transplanting organs were taken from the living donors, the physician was obliged to provide complete information to the donors. There are some examples of organ donations where ethical standards were not carried out in Serbia<sup>15</sup>.

In this study, percentage of correct answer regarding issuing a medical certificate was 74.4%. The writing of a medical certificate

was a different task that a physician had to perform. The physician had a scope to act on behalf of the party requesting for the certificate rather for the patient. So, medical certificates should be written promptly, honestly, accurately, and objectively and a failure to issue a medical certificate appropriately had a negative impact on the patient and the patient's family<sup>16,17</sup>.

Sixteen recent medical graduates (5.2%) of questionnaire survey in present study answered correctly of all the six knowledge-based questions. In Malaysia, only 18.4% of the medical residents had the correct response regarding medical ethics<sup>18</sup>.

The current study revealed that medical educational stakeholders and teachers thought that there was lacking in knowledge of medical ethics. In Iran, the faculty members and managers also thought that there were knowledge defects among the physicians<sup>19</sup>.

In this study, most of medical educational stakeholders and teachers opined for curricular reform. Similarly, in India more than half of the physician respondents (69.2%) thought that undergraduate curriculum on medical ethics was insufficient<sup>20</sup>. The respondents in India (99%)<sup>17</sup>, Pakistan (79.8%)<sup>21</sup> and Africa (97.9%)<sup>22</sup> thought that medical ethics should be taught through integrating in undergraduate MBBS curriculum formally. In the current study, the participants suggested for training. Training on medical ethics was more needed to the residents for their deeper understanding and for having virtuous physicians<sup>23</sup>. In Bangladesh, 88% of teachers suggested for training and early exposure to clinical teaching and 50% of

them thought that the MBBS course was overload<sup>24</sup>.

There might be a scope of introducing pre-internship training on medical ethics and professionalism, so the recent medical graduates could have a chance of recapitulation. Including this topic in the curriculum will increase the knowledge and positive attitude of the physicians.

### Conclusion

The findings of the study showed that there is a lack of knowledge of recent medical graduates on medical ethics and professionalism. As the medical educational stakeholders and teachers felt that the current MBBS curriculum should be reformed and pull out to internship training, a separate compulsory module for training on medical ethics and professionalism at pre-internship period may be added to enhance medical ethics and professionalism among the physicians.

### Acknowledgements

Authors express deep sense of gratitude to the medical educational stakeholders and teachers for giving their invaluable time without which it would have been really impossible to do this work. We lovingly acknowledge the cooperation of all the recent medical graduates. Authors acknowledge the financial grant of BUP for this study.

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