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Original Article

Recent Medical Graduates' Abilities in Carrying Out Consultations with Patients: Views of Interns, Medical teachers, and Medical Graduates

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Abstract

This descriptive type cross sectional study was carried out to explore the views of medical teachers, medical graduates and intern doctors regarding ability of recent graduates on consultation with patients.

Study period was from January 2021 to December 2021. The study was carried out in twelve government, private and army medical colleges across Bangladesh. Sample size total 636 medical teachers, medical graduates and intern doctors. Convenience sampling technique was adopted in selecting medical college and purposive sampling technique is adopted for respondent in this study. Data were collected by self administered semi structured questionnaire and data were then compiled and analyzed using SPSS version 26.

Among 636 participants, majority were intern doctors (39.3%) followed by 33.8% medical graduates and teachers (26.8%). Majority of the respondents were from government medical college i.e., 51.8% followed by 30.1% from private medical college and 18.2 % from army medical college.

Study revealed that all respondents (Medical teachers, medical graduates and intern doctors) agreed that for consultation with patients, recent medical graduates are more prepared in taking history and physical examination; but least prepared in breaking bad news. Majority of the all three participants' teachers, medical graduated and intern doctors had provided a mild positive agreement about the recent medical graduates' patient consultation skill. None of them had given strongly positive agreement about recent medical graduates' ability on patient consultation skill. Further research needed to generalize this study finding.

Key word: Consultation, recent medical graduates, history taking, prescription, breaking bad news

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Introduction

The national goal of our MBBS course is to produce competent, compassionate, reflective and dedicated health care professionals. Medical education in Bangladesh has also experienced many changes and challenges. Since long, Bangladesh Government is also committed to improving medical education as per need of the country[1,2]. Medical education for

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capability is a move to bring relevance to clinical practice and reduce information overload in curriculum[3,4].

Studies have done in different countries to assess how well medical colleges have prepared graduates for work; using postal questionnaire surveys[5]. In the report of Ad Hoc committee of deans-USA has found inadequacy of undergraduate curricula in preparing future doctors for clinical practice[6]. Newly graduated doctors are relatively unprepared in a number of aspects in their medical practice, while entering medical practice[7]. They also have been identified with incomplete clinical training and education[8].

Medical teaching needs to ensure that medical graduates have acquired clinical skills which are essential for independent, unsupervised medical practice. In recent past, large numbers of medical colleges (both in public and private sectors) have been established. Approximately, 10,000 doctors are graduating every year. Although number of doctors available for patient care has increased, scientific evidence on their effective role as medical practitioners is not enough. Thus, primary goal of the study was to find out the views of stakeholders on recent medical graduates' abilities in carrying out consultations with patients.

Methodology

This was a descriptive type of cross sectional study. The study was conducted for one year from January 2021 to December 2021. A total of 636 teachers, medical graduates and intern doctors were the respondents of the study. Teachers, medical graduates and intern doctors were included in the study, those were present at the time of data collection and willing to participate in the study as respondents.

Two self-administered semi-structured questionnaire constructed on a five point Likert scale was used for data collection. Convenience sampling technique adopted in selecting medical college and purposive sampling technique is adopted for respondent in this study. This was study conducted at twelve medical colleges of Bangladesh. Questionnaires were administered among (171) medical teachers, (215) medical graduates and (250) intern doctors.

For each variable, frequency distribution and mean score were calculated. Interpretation of the mean score is as follows: 5-strong positive agreement for the statement, 4 to <5-moderate positive agreement for the statement, 3 to <4- mild positive agreement for the statement, 2 to <3-negative agreement for the statement, 1 to <2-strong negative agreement for the statement.

Data were computed and processed using SPSS software version 26,One-way analysis of variance (ANOVA) to compare the responses of the different cohorts was carried out on each of the factors (factor scores were calculated using the regression method in SPSS v16).

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Results

Table 1: Distribution of medical teachers by their opinion about the abilities of recent medical graduates in carrying out consultations with their patients (n=171)

Statements on carrying out consultations with patients	Number (%) of the level of agreement with corresponding scores					Mean (±SD)
	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**	
Able to take the necessary history of illness	3(1.8)	10(5.8)	21(12.3)	115(67.3)	22(12.9)	3.84± 0.787
Can perform the necessary physical examination	2 (1.2)	18 (10.5)	27 (15.8)	110(64.3)	14 (8.2)	3.68 ± 0.816
Can select investigations appropriately	0	29 (17)	57 (33.3)	73 (42.7)	12 (7)	3.40 ± 0.850
Able to interpret the results of the investigations	1 (0.6)	17 (9.9)	52 (30.4)	92 (53.8)	9 (5.3)	3.53 ± 0.769
Able to diagnose common health problems	1 (0.6)	10 (5.8)	32 (18.7)	116 (67.8)	12 (7)	3.75 ± 0.695
Can manage the common health problems	0	10 (5.8)	32 (18.7)	117 (68.4)	12 (7)	3.77 ± 0.663
Able to write prescriptions considering patient safety	0	27 (15.8)	57 (33.3)	76 (44.4)	11 (6.4)	3.42 ± 0.831
Communicate with patients and relatives in the medical context	2 (1.2)	26 (15.2)	53 (31)	82 (48)	8 (4.7)	3.40 ± 0.844
Break bad news	3 (1.8)	45 (26.3)	56 (32.7)	62 (36.3)	5 (2.9)	3.12 ± 0.896

Table 1 shows the distribution of 171 medical teachers by their opinions about the abilities of recent medical graduates in carrying out consultations with their patients. It was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.12 to 3.84.

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Table 2: Distribution of medical graduates by their opinions about the abilities of recent medical graduates in carrying out consultations with their patients (n=215)

Statements on carrying out consultations with patients	Number (%) of the level of agreement with corresponding scores					Mean (±SD)
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Able to take the necessary history of illness	1 (0.5)	9 (4.2)	19 (8.8)	128 (59.5)	58 (27)	4.08 ± 0.750
Can perform the necessary physical examination	2 (0.9)	11 (5.1)	34 (15.8)	125 (58.1)	43 (20)	3.91 ± 0.801
Can select investigations appropriately	1 (0.5)	25 (11.6)	51 (23.7)	108 (50.2)	30 (14)	3.66 ± 0.877
Able to interpret the results of the investigations	1 (0.5)	15 (7)	43 (20)	131 (60.9)	25 (11.6)	3.76 ± 0.764
Able to diagnose common health problems	2 (0.9)	5 (2.3)	33 (15.3)	147 (68.4)	28 (13)	3.90 ± 0.673
Can manage the common health problems	1 (0.5)	8 (3.7)	39 (15.1)	133 (61.9)	34 (15.8)	3.89 ± 0.721
Able to write prescriptions considering patient safety	4 (1.9)	20 (9.3)	59 (27.4)	103 (47.9)	29 (13.5)	3.62 ± 0.898
Communicate with patients and relatives in the medical context	6 (2.8)	19 (8.8)	50 (23.3)	107 (49.8)	33 (15.3)	3.66 ± 0.938
Break bad news	11 (5.1)	40 (18.6)	50 (23.3)	91 (42.3)	23 (10.7)	3.35 ± 1.061

Table 2 shows the distribution of 215 medical graduates by their opinions about the abilities of recent medical graduates in carrying out consultations with their patients. It was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.35 to 4.08.

Table 3: Distribution of interns by their opinions about the abilities of recent medical graduates in carrying out consultations with their patients (n=250)

Statements on carrying out consultations with patients	Number (%) of the level of agreement with corresponding scores					Mean (±SD)
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Able to take the necessary history of illness	0	3(1.2)	91(36.4)	79(31.6)	77(30.8)	3.92±0.846
Can perform the necessary physical examination	2(0.8)	20(8)	93(37.2)	86(34.4)	49(19.6)	3.64±0.913
Can select investigations appropriately	4(1.6)	24(9.6)	91(36.4)	86(34.4)	45(18.0)	3.58±0.946
Able to interpret the results of the investigations	6(2.4)	31(12.4)	86(34.4)	80(32)	47(18.8)	3.52±1.011

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Statements on carrying out consultations with patients	Number (%) of the level of agreement with corresponding scores					Mean (±SD)
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Able to diagnose common health problems	4(1.6)	31(12.4)	79(31.6)	79(31.6)	57(28.8)	3.62±0.020
Can manage the common health problems	4(1.6)	24(9.6)	98(39.2)	83(33.2)	41(16.4)	3.53±0.932
Able to write prescriptions considering patient safety	5(2)	36(14.4)	97(38.8)	77(30.8)	35(14)	3.40±0.966
Communicate with patients and relatives in the medical context	2(0.8)	14(5.6)	71(28.4)	91(36.4)	72(28.8)	3.87±0.924
Break bad news	17(6.8)	26(10.4)	95(38)	69(27.6)	43(17.2)	3.38±1.096

Table 3 shows the distribution of 250 interns by their opinions about the abilities of recent medical graduates in carrying out consultations with their patients. It was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.38 to 3.92.

Table 4: Comparing means of the opinions of the stakeholders about the abilities of recent medical graduates in carrying out consultations with their patients

Statements on carrying out consultations with patients	Mean(±SD) of the opinions			P value
	Medical teachers (n=171)	Medical graduates (n=215)	Interns (n=250)	
Able to take the necessary history of illness	3.84± 0.787	4.08 ± 0.750	3.92±0.846	.000 Y (b)
Can perform the necessary physical examination	3.68 ± 0.816	3.91 ± 0.801	3.64±0.913	.000 Y(b,c)
Can select investigations appropriately	3.40 ± 0.850	3.66 ± 0.877	3.58±0.946	.018 X (b)
Able to interpret the results of the investigations	3.53 ± 0.769	3.76 ± 0.764	3.52±1.011	.141 Y (b,c)
Able to diagnose common health problems	3.75 ± 0.695	3.90 ± 0.673	3.62±0.020	.000 Y (c)
Can manage the common health problems	3.77 ± 0.663	3.89 ± 0.721	3.53±0.932	.000 Y (a,c)
Able to write prescriptions considering patient safety	3.42 ± 0.831	3.62 ± 0.898	3.40±0.966	.023 X (c)
Communicate with patients and relatives in the medical context	3.40 ± 0.844	3.66 ± 0.938	3.87±0.924	.000 X (b,c)
Break bad news	3.12 ± 0.896	3.35 ± 1.061	3.38±1.096	.009 Y (b)

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X= One way ANOVA had done to compare means, Y= Welch ANOVA had done to compare means due to violation of homogeneity of variances among the groups. Post HOC Tukey HSD tests had done to recheck the differences in the means of the opinions between the two groups: a= Difference is significant between medical teachers and interns,
b=Difference is significant between medical teachers and medical graduates, and c=Difference is significant between intern and medical graduates.
Table 4 shows comparisons of the means of the opinions of the medical teachers, medical graduates, and interns about the abilities of recent medical graduates in carrying out consultations with their patients. It was observed that there were significant differences in their opinions regarding most of the listed abilities of recent medical graduates in carrying out consultations with their patients.

Discussion

The study revealed that among 636 participants, 354 (55.6%) were males and 282 (44.4%) were females. Among them, the majorities were intern doctors (39.3%) followed by 33.8% were medical graduates and teachers (26.8%). 51.8% participants were from government medical colleges followed by private medical colleges (30.1%) and army medical colleges (18.2%). It was found that the duration of passing MBBS of maximum respondents (50.6%) was less than 5 years.
In our study all respondents (Medical teachers, medical graduates and intern doctors) agreed that for consultation with patients, recent medical graduates are more prepared in taking history and physical examination; but least prepared in breaking bad news.
A study by Matheson C et al, is broadly similar to ours that evaluated the extent to which first year doctors (foundation year 1 doctors) prepared for practice. Matheson C et al also found that medical graduates were best prepared in history taking and in clinical examination, and least prepared in breaking bad news[9].
Another study similar to ours, by Muthaura PN et al. to determine whether recent Kenyan medical graduates are prepared for their roles upon graduation from medical school[10]. Muthaura PN et al found respondents felt confident about their history taking and physical examination skills, confident about requesting appropriate investigations and interpreting test results, confident about recognizing common health problems but were not confident about managing them, acknowledged their deficiency in prescribing skills and also felt unprepared to communicate with patients. In contrast to this study, our study found only half of intern doctors (52.4% & 50.8%) opined their agreement in selecting appropriate investigation and interpret the investigation result. Our study revealed that only less than half of intern doctors (44.8%) respondents express their agreement on ability in writing prescriptions considering patient safety. In our study, intern doctors (65.2%) and medical graduates (65.1%) respondents are more in agreement about recent medical graduates' ability to communicate with patients and relatives in a medical context than teachers (52.7%).
Broadly similar to ours', Tobaiqy M et al in his study also found that only 8% of foundation year (FY) 1 doctors rate their

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knowledge of clinical pharmacology as good and 30% as poor or worse[11].

Mild positive agreement was found among all three participants (interns, medical graduates and teachers) of this study regarding the domain of consultation skills of the recent medical graduates which includes skills of history taking, physical examination, appropriate suggestion and interpretation of investigation, diagnosing and managing common health problems, writing prescription considering patient safety, communicating with patients and their relatives on medical context and breaking bad news. Mean value of all the statements of all three stakeholders was in between 3 to 4. In a similar study in Australia, Scicluna H.A. *et al.* found that the mean score for consultation skills of the recent graduates, who were working for the last 3 months, was 4.1 on a Likert scale ranging from 1-5[12].

From the medical teachers' opinions, it was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.12 to 3.84. It indicates the medical teachers are 62.4% to 76.8% in favour of the recent medical graduates who are able to carry out consultations with patients.

Similarly, from the medical graduates' opinions, it was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.35 to 4.08. It indicates the medical teachers are 67% to 81.6% in favour of the recent medical graduates being able to carry out consultations with patients.

Lastly, from the interns' opinions, it was found that out of 5-point Likert scales the means of their opinions about the abilities of the recent medical graduates in carrying out consultations with patients were within 3.12 to 3.84. It indicates the medical teachers are 67.6% to 78.4% in favour of the recent medical graduates who are able to carry out consultations with patients. The result of this study revealed that none of the respondents has given strong positive and moderate positive agreement about any of the statements regarding the ability of recent medical graduates to consult with patients.

Comparing the means, it was further found that there were significant differences in their opinions regarding most of the listed abilities. Similar statistically significant difference was also found among the intern doctors' and their supervisors' opinion about adequacy of undergraduates' clinical skills training conducted by Chan S.C. in Malaysia[13]. But these differences may be due to the effect of large sample sizes. This difference in opinion may be also due to self reported questionnaires. There are a number of factors about self-report data that renders them problematic[14]. For example, on what basis do individuals make their decisions: do they assess themselves against absolute measurements (am I good enough? am I minimally competent?) or against relative measures (am I average? Below average? and Compared with whom? My seniors? My peers?). When relative measures are used, these might be subject to social cognitive processes such as the 'better-than-average' effect whereby the majority of people believe themselves a better driver, a more competent parent etc., than the average person due to the inherent heuristics and biases we use when forming decisions. It is important to understand more about whether the difference is related to the medical colleges or to the quality of supervision received.

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In Australia, Scicluna H.A. *et al.* found shift from a discipline or content-based curriculum to an outcomes-based integrated program resulted in significantly higher perceptions of clinical competence among medical graduates with excellent self-rated and supervisor-evaluated capabilities in a range of clinically-relevant outcomes[12]. However further study needed to confirm and generalize our study findings.

Conclusion

Majority of the all three participants' teachers, medical graduates and intern doctors do not agree that recent medical graduates are able to break bad news on patient consultation. Majority of the all three participants' teachers, medical graduated and intern doctors had provided a mild positive agreement about the recent medical graduates' patient consultation skill, none of them had given strongly positive agreement about consultation skill of recent medical graduate. In Australia, shift from a discipline or content-based curriculum to an outcomes-based integrated program A shift to an outcomes-based integrated program resulted in significantly higher perceptions of clinical competence among medical graduates.

Further research is needed to find ways to improve ability of consultation with patients by recent medical graduates in our country.

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