

## The view of recent medical graduates on ethical consideration of prescription writings in Bangladesh

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### Abstract

Prescription writing reflects the competency as well as the quality of medical education of the physician. This study was done to evaluate opinion of recent medical graduates towards ethical aspects of prescription writing. This descriptive study was conducted on recent medical graduates of 7 medical colleges in Bangladesh from January'18-June'19. Data were collected by a pretested self administered semi-structured questionnaire. Only descriptive statistics were computed by collected data. The study included 308 recent medical graduates having average age at commencement of internship was 24.2 years with male predominant (53.2%). Majority of the respondents thought that prescription should be written in block letter or be printed (70.1%) and there was possibility for selling wrong medicine due to bad handwriting (77.6%). Majority of the recent medical graduates thought that generic names were not difficult to remember (82.8%), there was every possibility of selling poor quality drugs of the same generic names by the pharmacists (87.7%) and physicians should not use generic name in prescriptions (56.5%). Furthermore, most of them (92%) felt a need for a mandatory educational qualification for the pharmacists. Most participants opined that pharmacists should have a minimum educational qualification to prevent the errors in dispensing. The findings of this study might be helpful to reinforcement the law to avoid the errors related to medical professionalism and ethical aspects of prescription writing in the medical education.

**Key words:** *Recent medical graduates, Prescription writing, Educational qualification of pharmacists.*

### Introduction

The physicians have to write prescriptions as an important duty towards patients. It is a written order to patients. The quality of medical education can be measured by prescriptions.<sup>1, 2</sup> Prescription writing reflects the competency of the physician.<sup>3</sup> The recent medical graduates are practicing future physicians and also they

are the stakeholders. This study was done to evaluate opinion of recent medical graduates towards some contemporary issues of prescription writing in the light of medical ethics and professionalism. Their practice depends on their attitude towards prescription writing.

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The errors in prescriptions are mainly human error and occur during prescription writing. One of the solutions of these problems is to write the generic name of drug in block letters. However, the physicians are still practicing brand names instead of generic names in the prescriptions worldwide.<sup>2</sup> In Andhra Pradesh, none of the prescription was written in block letters among 180 prescriptions.<sup>4</sup> Bangladesh has same picture, despite the direction of High Court for block lettered or printed prescription.

Another important issue is using generic name in prescriptions. World Health Organization always wants to have generic name in prescriptions. There may be a chance selling poor-quality drugs in developing countries like Bangladesh. There are two ways of poor-quality drugs such as substandard and counterfeit medicines. Substandard products are dispensed as a result of lack of skill, poor industrialized practices, or insufficient

## Results

The average age at commencement of internship of the 308 recent medical

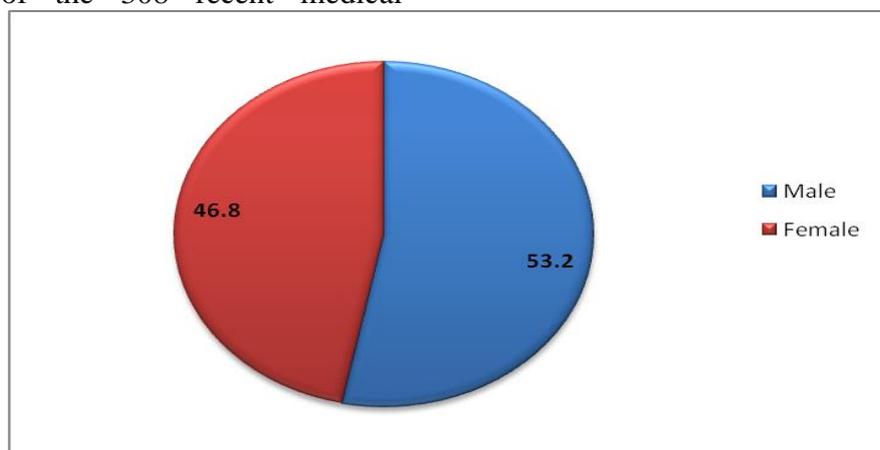
communications, and counterfeits are the results of criminal activities<sup>5</sup>

The current study also discussed about the different aspects of using generic name. Evaluation of recent medical graduates' views towards prescription writing would play an important role to take necessary actions needed.

## Materials and Methods

This descriptive cross sectional study was conducted with the objective to evaluate the opinion of recent medical graduates in 7 medical colleges in Bangladesh. The data were collected from January 2018 to June 2019. The total sample size was 308. Convenience sampling technique was adopted to collect the data. A self-administered semi-structured questionnaire was used for collecting. The collected data were processed and analyzed by SPSS (version 20). Only descriptive statistics were computed.

graduates was  $24.2 \pm 1.1$  years, and 53.2% were male (Figure 1).



**Figure 1: Gender of recent medical graduates**

The study included recent medical graduates from Armed Forces Medical College (11.0%), Chittagong Medical

College (15.3%), Dhaka Medical College (18.8%), Bangladesh Medical College (14.0%), Green Life Medical College

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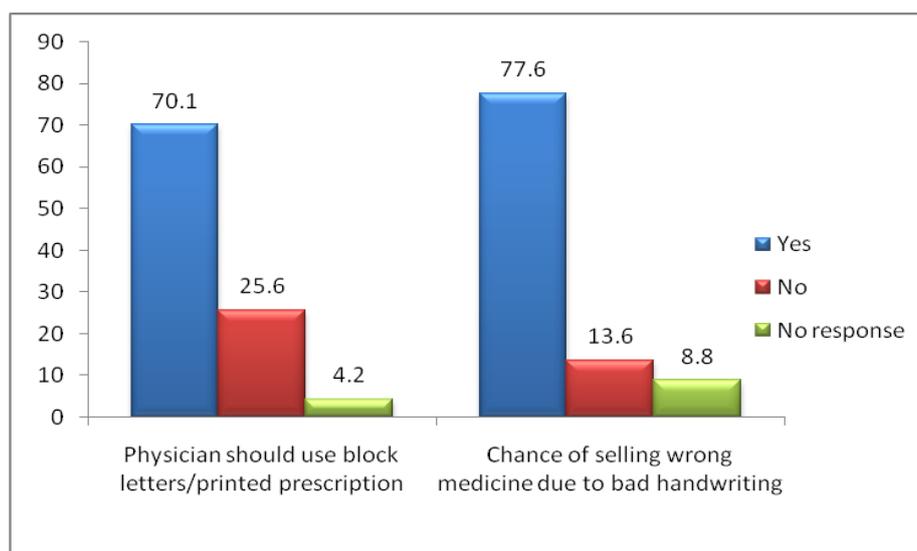
(11.7%), Md. Abdur Rahim Medical College (14.6%) and Khaja Yunus Ali Medical College (14.6%) (Table 1).

**Table 1: Name of medical colleges of recent medical graduates**

Name of medical colleges	Frequency	Percentage
Bangladesh Medical College	43	14
Chittagong Medical College	47	15.3
Armed Forces Medical College	34	11.0
Dhaka Medical College	58	18.8
Green Life Medical College	36	11.7
Khaja Yunus Ali Medical College	45	14.6
Md. Abdur Rahim Medical College	45	14.6
Total	308	100

More than two-third of the recent medical graduates (70.1%) opined that prescription should be written in block letter or be printed. More than one-quarter of them

(77.6%) thought that there was a possibility for selling wrong medicine due to bad handwriting (Figure 2).



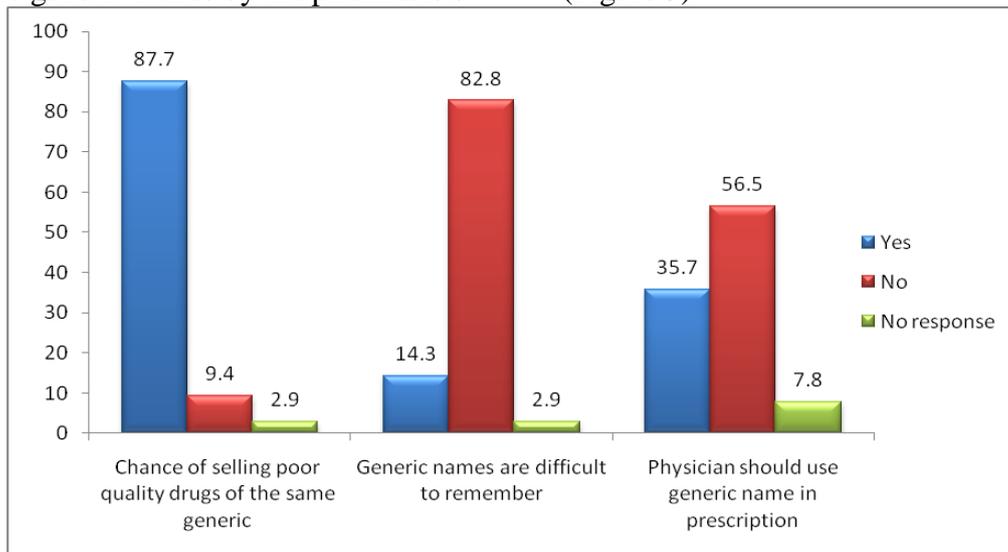
**Figure 2: Opinion of recent medical graduates regarding prescription writing**

Majority of the recent medical graduates (56.5%) thought that physicians should not use generic name in prescriptions. However, majority of them (82.8%)

opined that generic names were not difficult to remember. Again, according to most of them (87.7%), there was every possibility of selling poor quality drugs of

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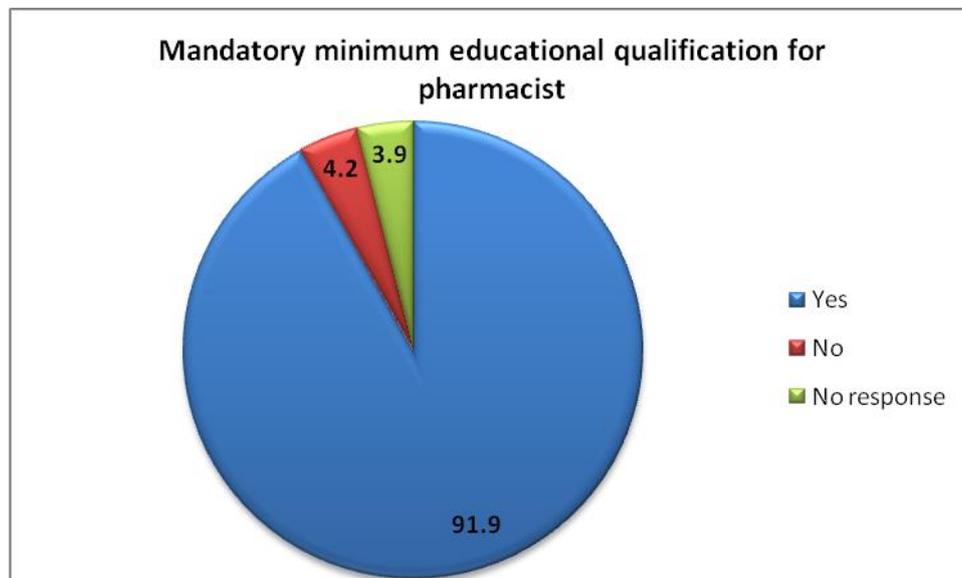
the same generic names by the pharmacists (Figure 3).



**Figure 3: Opinion of recent medical graduates regarding using generic names**

Most of them (91.9%) opined that pharmacist should have a mandatory

minimum educational qualification (Figure 4).



**Figure 4: Opinion of recent medical graduates regarding education of pharmacists**

### Discussions

The current study included recent medical graduates who were freshly passed and just enter into professional life. The

respondents included in this study from seven medical colleges in Bangladesh.

The mean age of recent medical graduates was 24.2 years, with SD 1.1; and the male were more (53.2%).

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Majority of the recent medical graduates (70.1%) of this study opined in favour of block lettered or printed prescription. The experts suggested for intervention in medical education and training in prescription writing.<sup>2, 6</sup> Similar worryness was expressed in Indian news paper as the recent medical graduates of this study (77.6%) that there was a chance of selling wrong medicine due to bad handwriting.<sup>7</sup> Another issue to emphasize is to use generic name in prescriptions. Majority of the recent medical graduates (82.8%) thought that generic names were not difficult to remember and 87.7% thought that there was a possibility of selling poor quality drugs of the same generic names by the pharmacists. It was evident that the pharmacists had a tendency to dispense the product which would earn the highest profit irrespective of the quality of the product.<sup>5, 8</sup> Majority of the recent medical graduates (56.5%) were disagreed with the use of generic name in prescriptions in this study. In another study in India 78.2% of medical students opined that generic name should be used while prescribing, though; half of them practiced generic names (56.3%). Again, all 121 interns used brand names in their prescriptions.<sup>3</sup> Almost all respondents (91.9%) in the current study thought pharmacist should have a mandatory minimum educational qualification. In 2014, Lebanon implemented mandatory continuing education (CE) for pharmacists.<sup>9</sup> So, for preventing selling of wrong medicine due to bad hand writing or poor-quality medicines, educational qualification of the pharmacists and computer aided prescription should be made compulsory.<sup>2, 6, 8</sup>

Continuing education (CE) or continuing professional development (CPD) makes pharmacists, one of the healthcare

professionals, competent and thus deliver the best quality of service to the customers. In Japan, pharmacists wanted to learn about taping techniques for musculoskeletal pains, treatment of wounds, insect bites, skin diseases, pregnancy and ovulation test, safe medication, traditional medicine etc.<sup>10</sup>

The pharmaceutical companies should manufacture good quality medicine and maintain that quality by frequent monitoring. They spend a large amount of money for marketing a drugs as for example, 449, 864 of 933, 295 U.S. physicians received 2.4 billion U.S. Dollars from the pharmaceutical industries in 2015.<sup>11</sup> So, pharmaceutical companies have a scope to take an initiative to include both the brand name and generic name in the prescription.

### Conclusion

The recent medical graduates felt a need for block lettered or printed prescription. So, the possibility of selling wrong medicine due to bad hand writing would be minimized. The recent medical graduates did not interested in using generic names in their prescriptions. As well as they marked it essential to have a mandatory educational qualification for the pharmacists to minimize the errors.

### Acknowledgement

I wish to extend sincere thanks to the respected participants.

### Ethical

Permission was taken from academic council of Bangladesh University of Professionals (BUP), Ethical Review Committee (ERC) of the selected medical colleges and from the recent medical graduates.

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## Reference list

1. Araghi S, Sharifi R, Ahmadi G, Esfehiani M, Rezaei F. The study of prescribing errors among general dentists. *Glob J Health Sci* 2015;8:32-43. doi: 10.5539/gjhs.v8n4p32.
2. Varghese NJ, Ramanarayanan V, Janakiram C, Joseph J. Assessment of quality of prescription writing among dental and medical students and practitioners in Kerala. *J Nat Sc Biol Med* 2018;9:27-33. doi: 10.4103/jnsbm.JNSBM\_108\_17
3. MJ Sudha, S Viveka, S Remya. Assessment of prescription writing skills among undergraduate medical students. *Int J Basic Clin Pharmacol*, 2016. DOI: <http://dx.doi.org/10.18203/2319-2003.ijbcp20162477>
4. Sudheer, G., et al. "A study of prescription writing practices of doctors in medical units in a teaching hospital." *Journal of Dr. NTR University of Health Sciences*, vol. 2, no. 1, 2013, p. 22. *Gale OneFile: Health and Medicine*, . Accessed 9 Dec. 2020. DOI: 10.4103/2277-8632.108508\
5. Newton PN, Green MD, Fernández FM. Impact of poor-quality medicines in the 'developing' world. *Trends Pharmacol Sci*. 2010 Mar;31(3):99-101. doi: 10.1016/j.tips.2009.11.005. Epub 2010 Feb 1. PMID: 20117849; PMCID: PMC2845817.
6. Phalke VD, Phalke DB, Syed MMA, Mishra A, Sikchi S, Kalakoti P. Prescription writing practices in a rural tertiary care hospital in Western Maharashtra, India. *AMJ* 2011, 4, 1, 4-8. Doi: <http://dx.doi.org/10.4066/AMJ.2011.515>
7. Revikumar, K.G.. It's time to totally ban handwritten prescription. *Deccan Chronicle*. Published Oct 20, 2018. <https://www.deccanchronicle.com/nation/in-other-news/201018/its-time-to-totally-ban-handwritten-prescription.html>
8. Bhattacharyya NC. Generic versus branded medicines. *Int J Health Res Medico Leg Prae* .2019 January;5(1):1-2. DOI: 10.31741/ijhrmlp.v5.i1.2018.1.
9. Sacre H, Tawil S, Hallit S, Sili G, Salameh P. Mandatory continuing education for pharmacists in a developing country: assessment of a three-year cycle. *Pharm Pract (Granada)* [Internet]. 2019 Aug.24 [cited 2020 Dec.9];17(3):1545. Available from: <https://pharmacypractice.org/journal/index.php/pp/article/view/1545>
10. Terajima T, Matsushita K, Yamada S, Suzuki H, Yano S, Makimura M, Yamamura S. Perspectives on Continuing Education Programs for Foundation-Level Drugstore Pharmacists in Japan. *Pharmacy (Basel)*. 2020 Nov 19;8(4):223. doi: 10.3390/pharmacy8040223. PMID: 33227924; PMCID: PMC7712795.
11. Tringale KR, Marshall D, Mackey TK, Connor M, Murphy JD, Hattangadi-Gluth JA. Types and Distribution of Payments From Industry to Physicians in 2015. *JAMA*. 2017;317(17):1774–1784. doi:10.1001/jama.2017.3091