

View Point

Plagiarism in Medical Science - The Forbidden Fruit

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Medical science is a noble profession. In ancient time, doctors were considered to be God. Even today, a doctor must possess a number of qualities such as honesty, sincerity, integrity and many others. But unfortunately these qualities are lacking amongst many doctors. The concept of misconduct among medical students is not new.¹ Plagiarism is one of them. It has been documented even 200 years ago.² Some famous scientific literatures are now being recognized or accused of plagiarism. For instance, it has been shown that Charles Darwin has either intentionally or unintentionally plagiarized articles in his “theory of evolution”, one of the cornerstones of today’s modern science.³

In recent years, scientific misconduct and academic dishonesty has been the center of attention of the academic and scientific community.⁴⁻⁸ Academic misconduct is defined as any type of cheating that compromises the educational process and academic integrity of the institution. It includes plagiarism, fabrication, deception, corruption, and sabotage, while scientific misconduct usually includes fabrication, falsification, plagiarism, and other unethical behavior in professional scientific research.⁹⁻¹¹ Plagiarism is defined as “unauthorized appropriation of another’s work, ideas, methods, results or words without acknowledging the source and original author”.⁷

Self-plagiarism is widely considered to be a type of plagiarism, and it is defined as the inappropriate presentation of one’s own published data or text as new and original. Among all types of misconduct in science and in an academic environment, plagiarism is considered to be the most vicious between peers, because it constitutes theft of intellectual property, which is the core achievement of intellectual work. It is also the most common type occurred as well. The implementation of computer technology and the availability of scientific papers and books in electronic form have simplified the process of plagiarizing by allowing one simple procedure - “copy-and paste”.¹²⁻¹⁴

The forbidden fruit has always been the tastiest. With development of modern science, Internet, Google, Wikepaedia, perhaps writing an essay seems just too easy to students. In the period of early modern science, what not understood was doomed to be evil. But today even with all the understandings, the conscience is lost somewhere in the magic of science.

Plagiarism has been extensively studied in the West where students are required to write more and definitely the pressure of doing well is also great.^{6-8, 15} Rennie reported that 56% of medical students in the US plagiarized at least once in their academic career.⁶ Elzubeir found that 27% of medical students in their fifth and sixth academic years and medical interns from the United Arab Emirates considered plagiarism an appropriate behavior.⁸ Results from a Croatian study were even more alarming: 90% of medical students plagiarized to some extent on their essay-based assignments.⁷ Martinson et al found that 2% of authors used another’s ideas without obtaining permission or giving credit to authors.¹⁶ Another alarming fact that most cases of research misconduct remain undetected, which might even lead to more plagiarism.^{12, 17} Unfortunately, in Bangladesh we do not have any such study to describe the extent of plagiarism.

The tsunami of plagiarism has many underlying causes. The first & the most obvious reason why learners plagiarize is — easy access. The easily accessible internet to students or residents who are far more adept at utilizing it as a tool of plagiarism and in most cases their skill supersedes their teachers or reviewers in doing so. The Internet allows access to a virtually limitless supply of information in seconds. The fact that how easy it is to find information will be clear from the example below, when reviewing essays from applicants essay in the geriatric fellowship program, similarity was found between many essays. Then when the reviewer searched Google for “Geriatric Personal Statement” provided a listing of 774,000 Web sites. The first website listed as

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essayedge.com, an editing service that offered to improve various types of essays for a fee. One of the examples provided was a geriatric personal statement, complete with before and after versions for a potential customer to review and it had a striking resemblance to many of the ones written (!) by the students.¹⁸ Other reasons cited as causes for plagiarism are applicants, particularly those for whom English is not a primary language, may be uncomfortable with their writing ability. It includes a country like ours where the primary language for most medical students during the first twelve years of education is Bengali. From there they are thrown into this vast field of medical science where no such language exists. All the books, lectures, seminars are in English and the teachers preferring English as only language of communication. In these cases plagiarism may be a breath of fresh air to these suffocated students. No matter how fluent you are in bedside, while describing clinical features, or summarizing a case or writing, English, is the language. Another reason may be that there is a generation gap in the perception of plagiarism as the young learners may not perceive plagiarism as a significant wrong.¹⁸

The publication of scientific research is a mechanism for the dissemination of new knowledge that have been obtained as a result of research, as a step towards finding out the truth and overall for the betterment of medical science. But a new trend has evolved over the years as there is a pressure on investigators to publish and obtain funding for research that is required to obtain important positions or get into a program for higher studies. This may lead individuals to succumb to the temptation of altering data, falsifying information, or plagiarizing the works of other investigators as a short cut method. As physicians and researchers, we are all human, and we have all the human frailties to contend with.

The impact of plagiarism is enormous. Its significance in medical science is illustrated by the existence of “plagiarism” as a regular term in the Medical Subject Headings list of the Index Medicus.¹⁹ It is very important to recognize plagiarism in the academic community and teach about it. It is a crime in our current situation to ignore plagiarism among students because then they may choose the easy way rather than be honest the hardworking members of the medical profession. It will ultimately give rise to incompetent, dishonest medical doctors who lack medical knowledge.²⁰⁻²²

The technology that makes plagiarism easier to perform, also make it easier to detect. There are several software tools for detecting plagiarism, most of them using correlation techniques to discover concordance between several documents.^{23, 24} Plagiarism- detecting services and tools

are available on the Internet, and some of them are free of charge. Internet services, e.g., Turnitin® (iParadigms, Oakland, A, USA; www.turnitin.com) and EVE (Essay Verification Engine, CaNexus.com; www.cane xus.com/eve/) allow detection of similarities between a text and documents collected from different databases or on the Internet. These services can be used only for the English language.²³ There are methods that can be used regardless of the language. The Glatt Plagiarism Service is a computer program that is not based on correlation techniques but deletes every fifth word from a student’s paper and the student is asked to fill in the missing words. If a student cannot fill in 77% of the missing words from his or her paper, he or she is probably plagiarizing.²³ One of the computer programs based on correlation techniques is WCopyfind, created by Louis Bloomfield. which can be downloaded from the Internet (www.plagiarism.phys.virginia.edu/Wsoftware.html) free of charge.²⁵ WCopyfind examines a collection of document files, extracts the text portions of these documents and looks for matching phrases between them. The software does not search the Internet for matching documents. Instead, the user needs to specify which documents should be compared. It makes this program useful for texts written in any language.²⁵

In Bangladesh, there approximately are around fifty five thousand medical doctors who are currently practicing. Many journals are published in Bangladesh. On top of that, a large number of them are pursuing post graduate studies which requires scientific writing such as thesis or dissertation. But it’s really worrying that many of the educators, teachers and educational institutions are currently not familiar with concept of plagiarism. Till date, there is no anti plagiarism policy in Bangladesh. But the incentive is there as certain numbers of publications are required for a doctor to be promoted in service. Our ignorance towards this issue can greatly affect our professionalism, our quality of work. Nowadays, almost all higher educational organizations have guidelines to avoid plagiarism amongst students with severe penalties being in place for the offenders. It is high time that we, educationalists sit together to put a strong anti plagiarism policy for protection of our own kind, our students who are indeed in need of such a policy.

In conclusion, as the issue of plagiarism is becoming more common, the higher educational institutions and post graduate research institutes need to focus on prevention of plagiarism and finding new ways to detect the offence. A section on plagiarism can be included in the handbooks, and provided to students where it will be described in simplified manner how to avoid it. And of course, those who

will teach must get more familiar with modern technology, to catch modern plagiarism using the modern technology. It is high time that we, members of medical community urgently take this fact into consideration to prevent plagiarism and protect our dignity and integrity.

Conflict of Interest: None

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