

## EDITORIAL

## PLAGIARISM IN SCIENTIFIC WRITING

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Although it is not possible with certainty to know the exact date of the first scientific report, with scientific and technological contribution the ancient civilizations like China, Greece, and Babylon can be attributed to the earliest scientific reporting.<sup>1</sup>

During the era of ancient Greek, these scientific reporting and communications took a different turn, shifting from oral to written communications. Because of short supply of scrolls, these communications became more systematic and organized laying the base for modern scientific writing. From ancient Greek, the scientific writing moved through Latin and eventually to English and other languages. The earliest evidence of scientific writing in English can be found in the 14th century.<sup>2</sup>

With the invention of the printing press around 1450 AD, widespread dissemination of knowledge became a reality and by the 18th century two million books were published.<sup>3</sup> Scientific and academic literature was very few and whatever was present was lacking oversight for its authenticity and appropriateness but it all changed in 1660 AD when a group of scientists including Newton, Boyle, Hooke and Oldenburg gathered and laid the foundation of The Royal Society of London which was a platform for exchange of scholarly knowledge. And in 1665 AD the Philosophical Transactions of the Royal Society was founded, the first scientific journal which published a peer reviewed work.<sup>4</sup>

Scientific or academic writing is a multifaceted process demanding simultaneously clear expression of thought, accuracy of report, and importantly, honesty. Scientific writing often comes with the constraints of competing pressures and can be deficient in one or more of the components. Insufficient clarity and lapses in the accuracy are assumed to be unintentional, but these lapses, even unintentional, can have undesirable results. But perhaps most widely recognized unethical and deliberate lapse is plagiarism. Plagiarism is regarded as breach of scientific conduct and publication ethics.<sup>6</sup> Plagiarism is defined as “appropriation of another person’s ideas, processes, results or words without giving appropriate credit to the source or author”.<sup>6</sup> In addition to plagiarism which indicates intellectual theft, another form of plagiarism is self-plagiarism in which author presents his previously published work or data as original work”.<sup>7</sup>

Countries which previously had a little stake in research activities like China, Pakistan and India

are now contributing significantly to research efforts worldwide resultantly, the number of publications has increased many fold from 1.09 million in 2002 to 1.94 million in 2010<sup>8</sup> and occurrence of misconduct also seems to rise proportionately. This misconduct results from pressures to publish for influence and fame, career advancement, yearning for recognition etc.

Most common causes of plagiarism usually include pressure to publish, limited English and writing proficiency, attitudes towards plagiarism and influence of cultural values.<sup>6,8,9</sup> The pressure to publish arises by the fact that scientific productivity is usually estimated by one’s publication and this pressure may lead to breach of publication ethics. Most of the scientific work is in English and it may be difficult for authors who are not English speakers and subsequently may resort to plagiarism for expression.

Development of information technologies and extensive use of internet has led to an escalation in the instances of plagiarism. Majority of the published material is now easily available and allows willing authors to duplicate the text with little effort. Journals are reporting plagiarism in excess of 30% in the articles submitted to them.<sup>5,10</sup>

The extent of plagiarism can range from copying of a single sentence to projecting others complete work as their own. On the other hand unintentional plagiarism might result from either being unclear about what plagiarism is or in many instances, being conditioned from secondary schooling e.g., not being familiar with the requirement to acknowledge sources.

When it is relatively easier to find material, one must be cautious to prevent plagiarism. Understanding the causes may help prevent this unethical practice. The best way to avoid plagiarism is to ensure the submitted work is original and also to ensure proper citation of sources. Sections containing similar text must be rewritten by the author in his/her own words. Methods sections containing similar procedures to already published studies needs to be rephrased to circumvent plagiarism.

Journal of Ayub Medical College Abbottabad (JAMC) is very keen and is taking concrete steps to reduce plagiarism in its published articles. Every suspected case of plagiarism detected by JAMC will be reviewed objectively by the editors and if plagiarism is found, the JAMC will consider

options depending upon the extent of plagiarism including immediate rejection. Even after publication if plagiarism is reported or found, the article may be retracted with announcements on web site and print issue of the journal. JAMC hopes that our contributors will ensure care and vigilance to prevent plagiarism.

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