

# Approach of Medical Students to Academic Research – The Futility of Crude Consequentialism

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## ABSTRACT

The means-ends debate lies at the very core of the subject of ethics. However, instead of adopting a dichotomous, black-and-white attitude, it has been realized that one could pursue a goal oriented approach even without compromising on ethical standards. It would be prudent for students to inculcate such a balanced viewpoint in the formative years of medical education while pursuing their academic and co-curricular ambitions - being a part of research studies, for example. In order to extract the best of their experiences, students must not restrict their outlook to academic research merely as an addition to their résumés or just a task to be ticked off the to-do list. They should broaden their horizons and consider it as a privilege to be able to contribute to the profession and society even as young students of medicine.

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Since long, the values that ought to govern human action and conduct have been the focal point of multiple debates and discussions. Ethics refers to a discipline that deals with principles which help us understand and resolve conflicts stemming out of moral imperatives.<sup>1</sup> Medical ethics is that branch of the subject which is concerned with the obligations of the healthcare fraternity, not only to the patients, but society at large.<sup>2</sup> However, these standards are not restricted to clinical practice alone; the scope and implications of medical ethics extends to the field of healthcare research as well. Medical research ethics is a multi-dimensional domain, involving numerous stakeholders and diverse aspects [Figure 1].

In recent times, efforts are being made to inculcate the spirit of evidence based medicine in students by encouraging them to undertake research projects right from their undergraduate days. The Association for Support and Propagation of Innovation, Research and Education (A.S.P.I.R.E) – a student led organization established as Seth G.S. Medical College and King Edward Memorial Hospital, Mumbai, to promote academic research by medical undergraduates is one such endeavour.<sup>3</sup> These initiatives have witnessed

considerable success and more and more medical students have been increasingly engaging themselves in such co-curricular activities. However, it has come to light that many young researchers may choose to bypass vital checkpoints and overlook moral aspects of their work so as to speed up the entire process, enabling them to cram as many publications as possible during an already demanding and rigorous academic course.<sup>4</sup> Students may often exploit loopholes and resort to immoral means to ensure the work is completed and published in the least possible amount of time – these include practices like salami slicing of research data,<sup>5</sup> guest authorship,<sup>6</sup> simultaneous submissions to multiple journals,<sup>7</sup> bypassing Institutional Ethics Committee review,<sup>4</sup> publication in predatory journals,<sup>8</sup> etc, to name a few. This may be the result of an attitude which considers research as a mere tool to enrich one's Curriculum Vitae. For many, academic research is simply a mean to improve their chances of securing admissions in foreign graduate programs of the west, namely, the United States Medical Licensing Examination (USMLE) and the Professional and Linguistic Assessments Board (PLAB) test for U.S.A and U.K. respectively. While having such a utilitarian approach to research may not be detrimental in itself, resorting to

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Figure 1. Ethical aspects of Medical Research

unethical practices for the same is definitely a matter of concern.

The means-ends debate can be considered to be the primary moral dilemma in the field of ethics. In the 18<sup>th</sup> century, Kant laid the foundation of the deontological theory of ethics which emphasized on maintaining the purity of means, which must not be compromised for the sake of the results – There cannot be a wrong way of doing the right thing.<sup>9</sup> He gave the concept of Categorical Imperatives – A set of eternal and universal principles (For example, ‘upholding human dignity’) which one ought to obey in every situation irrespective of the outcome of such an action. In the context of biomedical and health research, the categorical imperatives would be analogous to the four cardinal principles of medical ethics given by Beauchamp and Childress - autonomy, non-maleficence, beneficence and justice.<sup>10</sup> They have been further expanded into 12 general principles [Figure 2] with an aim to safeguard the research participants’ dignity, rights, safety and well-being.<sup>11</sup> These foundational ideals act as guidelines to resolve commonly encountered ethical dilemmas and help us effectively navigate through the journey of a research project.



Figure 2. The 12 General Principles of Ethics in Biomedical Research

On the other hand, some scholars laid the foundation of the Consequentialist theory of ethics - while Hobbes gave the descriptive concept of Psychological Egoism which explained how an individual was incapable of thinking about anyone but self,<sup>12</sup> Rand proposed the prescriptive theory of Ethical Egoism which justified any behavior as ethical so long it fulfilled one’s own selfish interests.<sup>13</sup> Further, Bentham offered the utilitarian theory of ethics (Classical Utilitarianism) which regarded the end product of an action as the sole determinant of its rightness.<sup>14</sup> Such a pragmatic approach would rationalize the use of any mean as ‘ethical’ so long the outcome was desirable. It would also justify shortcuts or ethical misconducts one could resort to so as to quickly finish off the task, such as, fabrication, falsification or plagiarism of research data. Such a teleological approach confines the utility of undertaking a research study (mean) to mere completion of the project or publication (end).

While the deontological theory of ethics was discarded by some as dogmatic and inflexible, the teleological theory gave one the scope to undermine human dignity for the sake of material benefits. Historically, most dilemmas of mankind while choosing between morality and pragmatism have found a solution in the ‘middle path.’ Likewise, in an attempt to refine the hedonistic philosophy of crude utilitarianism and make it more humane, Brandt and Hooker proposed a golden mean - the theory of Rule Utilitarianism.<sup>15</sup> It stated that while acting to extract utility, one ought to limit to rules which have been established to ensure happiness of the society in a much larger sense. This implies that even though immediate and tangible results and materialistic outcomes could be sought, one should not overlook certain important principles while

pursuing them. Thus, while it is imperative to encourage students to actively take part in different research activities, such measures would be counterproductive if one's research aptitude is judged solely by the number of publications she/he has authored. Students should be made to realize that it is more important to do research 'as righteously as possible' than 'as much as possible.'

This moral approach to utilitarianism does not compromise the utility of an action for the sake of some arbitrary principles; rather it is based on a more holistic interpretation of the term 'utility'. Instead of considering 'utility' synonymous with short term gains for a single person, it understands the term in a broader context – an action's lasting impact on society at large. Similarly, the utility of research lies much beyond credit or acclaim to enhance one's academic profile. Undertaking ethical research helps one develop understanding of fine nuances of patient care and also gain a sense of confidence and self-worth by being able to contribute to high quality medical literature, which would eventually guide public policy. It also aids students to better comprehend and analyze academic texts and scientific articles. Hence, although positive results, quicker publications or recognition among peers may be a student's prime motive, she/he must always adhere to the prescribed set of guidelines to maintain ethical standards. This may retard the process and may even seem to be a cumbersome exercise. However, in the long run, one must bear in mind that the quality of work always matters more than the quantity. 'First do no harm' – compliance to ethical standards of research ensures adherence to this primary duty of ours as aspiring healthcare professionals.

Many argue that ethics is an intrinsic aspect of a person's nature and it cannot be taught. Hence, they propose institutional vigilance to be the only way to uphold ethical standards of research. However, the Theory of Modern Development proposed by Kohlberg<sup>16</sup> suggests that value based education and sensitization can expedite the transformation of moral reasoning from the pre-conventional stage (based on rewards and punishments) to the post-conventional stage (based on principled conscience). It implies that enlightened young researchers would choose to adhere to ethical principles not in order to avoid penalties or gain external accolades, but because they are able to visualize the merit in complying with these values, which is advantageous not just for self, but for the entire medical fraternity and humanity in general.

## END NOTE

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