Investigating the investigators: research malfeasance

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“I never had a policy, I just tried to do my best each and every day.”

Abraham Lincoln

Medical research has had its own incredulous history of misconduct and malfeasance. The horrific and notable findings of the American military tribunal that opened proceeding in Nuremberg in 1946 would only be the beginning. Regrettably, this dark stain in history would not be an isolated event, with varying reports of research misconduct and malfeasance continuing to this day [1,2]. To counter these worrisome trends regulatory bodies, laws and ethical oversight mechanisms have flourished since 1946 to address the need to keep research and its researchers on track [3]. Any trace of a system that may have once relied on ‘individual moral character’, of the integrity hinted at by Abraham Lincoln, appears now to be passé. A relatively new oversight body (circa 1992) has appeared on the scene – ironically called the Office of Research Integrity – and is helping to redefine the evolving landscape of research misconduct, investigation and integrity at an institutional, national and international level.

Terminology & taxonomy (what is the problem?)

Discussions of research malfeasance typically involve the words ‘fraud and misconduct’. Fraud is a well-established legal term used in criminal law cases to characterize the acts of a person who intentionally deceives another for personal gain or to willfully damage another [4]. In the arena of science and research, deception for the purposes of personal prestige would meet the legal definition of fraud. Misconduct, in reference to research, refers to a broader understanding of malfeasance, of which fraud would be a subset, and institutional policies should steer clear of appropriating legal terms explicitly in its initial review of misconduct cases.

Misconduct can occur at any point across the continuum of a project. Some occurrences are noted during the actual conduct or running of the research, others can happen at the publication stages with inappropriate practices such as ‘ghost’, ‘covert’ and ‘gift’ authorships, or in the chopping up of one’s research findings into multiple articles for greater impact [5].

Shared terminology and a common understanding of what constitutes misconduct is crucial. Of note, in 2010 the Canadian Expert Panel on Research Integrity reported that no national definition of misconduct or of research integrity existed and that considerable variation in terminology existed [101]. A consensus of understanding is particularly important if a fair system for both misconduct investigation and the allocation of disciplinary punishment is to be created, which can serve to act as an appropriate vanguard to promote researcher integrity [6].

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EDITORIAL

Evidence & trends (do we have a problem?)

Reports and studies suggest that we do indeed have a problem with research misconduct. Furthermore, the exception of sensational news articles drawing attention to the issue, the only way to understand the real scope of the problem is by surveying researchers and asking them in a way that reveals this issue.[5] In a 2002 report in the BMJ, a poll of >2700 researchers reported that 13% of respondents knew of colleagues intentionally altering/fabricating data during their research. Strangely, only 1 in 10 cases is reported to the proper misconduct search committee. The sources of misconduct in substantiated cases: 70% believe that 2% of scientists polled self-reported to having fabricated data and 72% knew others who engaged in misconduct.[5] Peers, perhaps those who read the published studies, are the main source of knowledge about misconduct. Overall, research misconduct typically lies with the institution where the accused is employed. However, when the same behavior is detected, the same body leads the investigational, prosecutorial and judicial phases of the misconduct.[10] It would appear that for some, at a personal and professional level, the drawing of a boundary to set for addressing the issue of research misconduct must be considered. Virtues, such as those epitomized by Abraham Lincoln, of honesty and integrity, can never be replaced.

A systematic review and meta-analysis of survey data suggests that research misconduct in 2009 found that 27% of scientists polled self-reported to having falsified and fabricated data at least once, whilst 34% admitted to having taken part in other questionable research practices (namely, dropping data, changing results and so forth).[11] When the same group was asked to report on their observations of others: 14% reported knowing scientists who falsified or fabricated data and 7% knew others who engaged in questionable research practices. A 2003 report from the Council of Science Editors reported the following sources of misconduct in substantiated cases: 70% involved plagiarism, 11% fabrication, 11% falsification and 8% were miscellaneous.[12]

Unfortunately, any fullsome assessment of research misconduct will mean a reliance on incomplete data, since much of it goes unreported. A typical research misconduct will mean a reliance on incomplete data, and such data will make it difficult to address these cases of research misconduct, which will also result in a lower incidence of reporting.[11]

Context & culture (why do we have this problem?)

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Despite the growing number of oversight mechanisms, many parts of the research will still remain a self-regulating enterprise. Traditionally, much of the medical research was conducted in larger institutions-based on research and development by big government, however, a movement towards smaller clinical settings, such as community hospitals and primary care centers, means some locations will have very little experience with conducting investigative procedures of the type needed to address these cases of research misconduct, which will also result in a lower incidence of reporting.[11]

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References


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