Ethics in Research: A Comparative Study of Benefits and Limitations

Abdul Awal

Doctoral School of Humanities, University of Lodz, Poland.
Orchid ID: https://orcid.org/0000-0002-3795-4583

Abstract: *Ethics, as an integral component of human decision-making, undeniably shape the landscape of scientific research. This article delves deeply into the nuanced realm of ethical restrictions and their corresponding effects on the scientific community, both in academic and industrial domains. These restrictions, which act as both guiding principles and potential barriers, have been the focal point of numerous longitudinal studies spanning several years. The comprehensive review presented shines a spotlight on the latest insights from recent research, emphasising the contemporary challenges and innovations brought about by ethical standards in the research arena. Particular attention is given to the burgeoning intersection of ethics in both academic institutions and the fast-paced industrial sector, as the line between the two often blurs in the quest for innovation. The paper is organised in a manner that provides readers with a clear pathway through the discourse. The initial section elucidates the numerous advantages that ethical restrictions offer. From fostering public trust and upholding the integrity of research to ensuring the safety and rights of all participants, these limitations, grounded in ethical tenets, often prove instrumental in driving meaningful and impactful research. Conversely, the subsequent section casts a critical eye on the disadvantages of these ethical limitations. It probes into scenarios where stringent ethical barriers might impede innovation, delay crucial research findings, or even deter potential researchers from embarking on certain investigative journeys. In the concluding remarks, a succinct synthesis of the findings is provided, along with a reflective examination of the overarching implications of ethics in modern scientific research. Understanding this balance between ethical considerations and scientific advancement is deemed pivotal for the future trajectory of research across various disciplines.*

Keywords: *Ethical limitations, ethics, moral guidelines, principles of research, responsibilities of researchers.*

Introduction:

Research ethics is an essential aspect of human behaviour, guiding interactions and activities in various fields (Blumberg *et al.*, 2005; Kovacs, 1985; Aktaranga & Makau, 2016). As Price, Jhangiani, and I-Chant (2015) defined it, ethics emphasises the principles of morality, guiding individuals towards moral actions and assisting in achieving research objectives. Ethics provides a framework in diverse areas, with scientific research presenting unique challenges, especially involving human subjects.

Research ethics aims to enhance social responsibility, uphold human values, extract valuable outcomes, and ensure the safety of both human and animal subjects in alignment with international regulations (Aktaranga & Makau, 2016). It encompasses the entire research process, from conceptualization to application. Addressing ethical considerations ensures the integrity and credibility of research. Frankena (2001) highlighted that ethics guide researchers in evaluating their findings. Winebaum *et al.* (2019) stressed the importance of treating participants humanely, adhering to set guidelines, and considering environmental impacts.

Scientific research operates within ethical boundaries to prevent harm to humans and the environment. The primary aim of science is knowledge enhancement and societal betterment (What are the Ethical Limits of Research?, n.d.). Recent advancements have spurred debates on topics like cloning, embryonic cell research, and genetically modified crops. While research seeks new knowledge, ethics ensure this pursuit doesn't compromise moral values. Ethical guidelines should guide research without restricting its scope. Researchers must find a balance between freedom of inquiry and safeguarding individual rights. In essence, the role of science is to improve knowledge and society by offering solutions to challenges previously unsolved.

Discussion and findings

In the realm of academic research, adherence to research ethics presents both merits and demerits. On the one hand, the central benefit of maintaining rigorous ethical standards is that it ensures the protection of the rights, safety, and well-being of research participants. Furthermore, it guarantees that scholarly investigations are conducted with integrity and adhere to the highest standards of honesty. Conversely, one cannot overlook the drawbacks associated with stringent ethical compliance. These can often manifest as significant temporal and financial investments. Additionally, an unwavering commitment to ethics may inadvertently act as an impediment to certain innovative and creative research trajectories. Navigating the labyrinthine ethical considerations that pertain to diverse research contexts further exacerbates the challenges faced by researchers.

Advantages

Conflict of Interest in Academic Research

Researchers are often cautioned to mitigate any potential financial conflicts that might compromise the impartiality of their findings. Such conflicts can inadvertently introduce biases, casting doubt on the reliability of the study. Furthermore, it is worth noting that participants themselves may be susceptible to bias if they receive monetary or non-monetary incentives for participation, as discussed by Sobhy & Redwan (n.d.).

Protection of Data in Scholarly Investigations

Ensuring data confidentiality remains paramount in research undertakings. Any information procured from diverse avenues must be treated with the utmost discretion and should not be divulged without obtaining the necessary permissions. The imperative to protect data is emphasised due to its centrality in the research ethics review process, where breaches can lead to severe consequences.

The Primacy of Integrity in Research Activities

Sokoli *et al*. (2020) assert that at the heart of any scholarly endeavour lies the principle of integrity. Researchers are entrusted with the weighty responsibility of presenting authentic data, free from any fabrication or unwarranted omissions. This extends to providing a comprehensive account of findings, disclosing foundational assumptions, and ensuring that the methodologies employed are free from biases. Weinbaum *et al*. (2019) have further underscored the propensity in academic publications to accentuate positive findings while diminishing the importance of negative or neutral results—a tendency that threatens the very essence of research integrity.

Intellectual Property and Ethical Considerations in Academia

In the academic realm, respect for intellectual property, encompassing patents, copyrights, and other protective measures, is of paramount importance. The unauthorised usage of unpublished datasets, methodologies, or findings without the explicit consent of the originator is regarded as a serious transgression. Equally vital is the onus on researchers to duly recognise and attribute all contributions made during the research process.

Mitigating Risks and Ensuring Participant Safety in Research

Wagle (2020) has elucidated the indispensability of prioritising participant safety in research undertakings. The harm posed to participants is not solely physical; it spans psychological distress, potential social stigmatisation, and breaches of confidentiality and privacy. An intrinsic aspect of ethical research involves obtaining informed consent, safeguarding participants' anonymity, ensuring transparency in research design, and granting participants an unequivocal right to exit the study. Additionally, in environments like chemical laboratories, non-adherence to safety protocols can jeopardise the well-being of researchers, their peers, and other staff.

Upholding Moral and Social Values in Scholarly Activities

According to Resnik (2020), research is not an isolated endeavour but is interwoven with broader moral and societal considerations, such as human rights, animal welfare, legal compliance, and the overarching imperative of public health and safety. Breaches in research ethics can have cascading ramifications, imperilling researchers, academic aspirants, and the broader populace. For instance, in fields like radiology or environmental studies, non-compliance with safety norms can inflict severe harm or even lead to fatalities, underscoring the gravity of ethical adherence.

Ensuring Equitable Treatment: The Imperative of Non-Discrimination in Research

Weinbaum *et al*. (2019) emphatically posit that no group should be unjustly deprived of the fruits of research to augment its benefits for another group. The essence of non-discrimination revolves around the bedrock principle that all individuals, irrespective of their unique attributes—be it age, economic background, health condition, ethnicity, gender identity, or a myriad of other attributes—are entitled to equitable treatment in the realm of research and their broader human rights endeavours.

Avoidance of Research Exploitation

According to Sokoli *et al*. (2020), the research domain demands an ethical stance that negates any form of exploitation. Exploitation emerges when the responsibilities or advantages of research are not evenly allocated, particularly when vulnerable demographics, such as those affected by incapacities, institutional constraints, or economic adversities, are unequally burdened. The sinister shadow of exploitation looms when research singularly targets specific groups, exposing them to the full gamut of associated risks, or when they don't reap the benefits from the research's outcomes.

Upholding Professional Competence in Academic Endeavours

Weinbaum *et al*. (2019) underscore the vital tenet that researchers should immerse themselves only in endeavours for which they possess the requisite expertise. Sokoli *et al*. (2020) further elucidate that this entails judiciously adopting pertinent statistical techniques and research methodologies and ensuring sample representation to eschew misleading conclusions. The broader ethical panorama necessitates that researchers be adequately trained and judiciously apply rigorous research strategies. It also demands adherence to paramount safety norms in all research engagements.

Safeguarding Anonymity and Confidentiality in Research

Wagle (2020) accentuates the significance of preserving the anonymity of participants. This implies withholding specific identifiers like names, ethnicity, or any other discerning data. Confidentiality, often used interchangeably with privacy, fundamentally alludes to the commitment of the research fraternity to protect the sanctity of participant data, ensuring it remains inaccessible to external entities. Weinbaum *et al*. (2019) elaborate that this commitment extends to obtaining explicit consent from participants regarding the manner in which their identifiable data will be archived and disseminated.

Public Trust and Research Integrity

Ethical fidelity in research endeavours often garners robust public financial backing. When the masses can place unwavering trust in the integrity and quality of a research initiative, they are inherently more inclined to financially support such ventures (The Ethics of Research, n.d.).

Prioritising Respect and Dignity in Research Practises

Depoy & Gitlin (2015) and Price, Jhangiani, and I-Chant (2015) collectively emphasise the necessity for researchers to exhibit unwavering respect for the distinctive norms, ethos, and rights of individuals and communities they engage with. This encompasses acknowledging their autonomy and ensuring they are never subjected to duress. Herein, the principle of informed consent emerges as a cornerstone, necessitating researchers to transparently communicate potential influences and secure the uncoerced consent of participants.

Ensuring Research Safety and Security

As researchers navigate their academic pursuits, it is pivotal for them to remain cognizant of the safety and security protocols of affiliated institutions. Wagle (2020) posits that ensuring participant anonymity and confidentiality remains a linchpin in upholding research ethics.

Recognising Social Responsibilities in Research

The primary goal of scientific research should be to advance society without harming individuals, communities, or our natural surroundings. As detailed in The Ethical Limits of Research (n.d.), research ethics must reflect societal principles and clearly define the study's purpose and conditions. Resnik (2020) also outlines various ethical guidelines to help researchers stay in line with societal expectations. These guidelines encompass, among other things, measures against research misconduct, handling conflicts of interest, and the well-being of both human and animal participants. In the end, these measures ensure that researchers using public funds are accountable to the broader community.

Figure: Advantages and disadvantages of ethical limitations in research

Disadvantages

Research is occasionally perceived as being constrained by ethical boundaries. The constraints in academic research largely hinge on the topic or facet being studied and the stipulations set by the educational establishment. Here are some examples of these limitations:

Understanding Institutional Limitations in University Research

Engaging in academic research within a university setting requires a thorough understanding of the inherent restrictions imposed by the institution. There are multiple facets to these limitations that one must consider. At the forefront is the structural or framework-related guideline that dictates the basic outline or format that the research must adhere to. This structure ensures that the research adheres to the recognised standards of the academic community and maintains its integrity and validity. Furthermore, there are specific methodological approaches that the institution might endorse or require. This means that a researcher might be restricted in terms of the techniques or methods they can employ during their study.

Another significant constraint is lexical or word-related limitations. Academic institutions often have strict word counts or page limits, ensuring that the research is concise and to the point. This requires the researcher to be precise and strategic in their choice of words and presentation of data. Additionally, time constraints are frequently a challenge. With semester timelines and other academic deadlines, researchers must be highly disciplined and efficient in their approach to ensure timely completion of their work.

Navigating Literature Source Limitations

When diving deep into a topic, contemporary literature can provide a wealth of knowledge, offering both breadth and depth to the subject matter. Despite the abundance of literature available, researchers might find themselves limited in the number of sources they can integrate into their work. This is often due to word count restrictions or the need to provide a stringent justification for each source's inclusion. As a result, valuable insights might be left unexplored or mentioned only in passing, leaving room for further exploration in future research.

Specificity in Selecting Research Sectors

The direction of a research topic is greatly influenced by the industry, sector, or organization it targets. For instance, when a study revolves around multinational organisations, it is paramount to select and analyse sources tailored to the unique challenges and intricacies of such entities. This often means narrowing down the research lens to focus on a specific division within the organisation or adopting a particular perspective or angle. While this specificity can provide in-depth insights into a particular area, it also underscores the need for additional research to understand similar aspects across various sectors or industries.

The Challenges of Time and Budgetary Resources

Resource constraints, both in terms of time and finances, are common hurdles faced by many in the academic research realm. Planning, securing, and effectively utilising budgetary resources can be a daunting task. This challenge is exacerbated when considering the financial sponsorship aspect. A substantial portion of academic researchers often grapple with the reality of insufficient or non-existent funding for their endeavours. As such, it becomes crucial for them to judiciously select a research topic that, while academically enriching, does not impose a heavy financial burden. This balance ensures sustainability and the successful completion of the research project.

Conclusion

Adhering to the principles of research ethics is imperative from both a moral and pragmatic standpoint. However, a segment of the scholarly community posits that ethical codes, rather than strengthening professions, may inadvertently weaken them due to recurrent disruptions. Furthermore, the concurrent existence of diverse codes can sometimes prescribe professional conduct in a manner that is discordant or antithetical. Several academics argue that while ethical guidelines may present themselves as an expedient pathway to a judicious conclusion, they frequently lack comprehensiveness. Advanced critical ethical decision-making paradigms might offer enhanced applicability to research practitioners compared to conventional ethical codes, especially when such codes manifest ambiguity that undermines practical deployment. Nevertheless, irrespective of the apparent challenges associated with ethical codification, the mere presence of such codes, when juxtaposed with qualitative discourse about them, signifies a proactive endeavour to evolve a researcher's professional trajectory by recalibrating standards of ethical comportment. Moreover, a consortium of scholars underscores that, notwithstanding the inherent complexities in upholding the ethical dimensions of research, adherence to existing regulations remains paramount (see Shortcomings of Codes of Ethics, n.d.).

References

Aktaranga, S.I. & Makau, B.K. (2016). Ethical Considerations and Their Applications to Research: A Case of the University of Nairobi, *Journal of Educational Policy and Entrepreneurial Research, 3* (12), 1-9.

Beyerstein, D. (1993). *The functions and limitations of professional codes of ethics*. Blackwell.

Blumberg, B., Cooper, D.R. & Schindler, P.S. (2005). *Business Research Methods*, McGraw Hill: Berkshire.

Butler, I. (2002). A code of ethics for social work and social care research. *British Journal of Social Work,32*(2), 239-248.

De Poy, E., & Gitlin, L. N. (2015*). Introduction to research: Understanding and applying multiple strategies*. Elsevier.

Frankena, S.W. (2014). *Ethics*. New Delhi: Prentice Hall India.

Depoy, E., & Gitlin, L. N. (2015). Introduction to Research: Understanding and Applying Multiple Strategies. Mosby.

https://doi.org/10.1016/B978-0-323-26171-5.00036-7Guillemin, M.& Gillam, L. (2004). Ethics, reflexivity, and ethically important moments in research. *Qualitative Inquiry ,10* (2), 261-280.

Herrscher, R. (2002) A Universal Code of Journalism Ethics: Problems, Limitations, and Proposals, *Journal of Mass Media Ethics, 17* (4), 277-289.

Koocher, G. P. (1977). Bathroom Behavior and human dignity. *Journal of Personality and Social Psychology, 35*, 120–121.

Kovacs, A. (1985). *The Research Process: Essentials of Skill Development*. Philadelphia, USA: F.A. Davis Company.

Middlemist, R. D., Knowles, E. S., & Matter, C. F. (1977). What to do and what to report: A reply to Koocher. *Journal of Personality and Social Psychology, 35*, 122–125.

Middlemist, R. D., Knowles, E. S., & Matter, C.F. (1976). Personal space invasions in the lavatory: Suggestive evidence for arousal. *Journal of Personality and Social Psychology, 33*, 541-546.

Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67*, 371–378.

Price, P.C., Jhangiani, R. & I-Chant, A. (2015). Research Method in Psychology. Chiang: Quest University Canada.

Resnik, D.B. (2020). What is Ethics in Research & Why Is It Important? https:// www.niehs.nih.gov.com

Reverby, S. M. (2009). *Examining Tuskegee: The infamous syphilis study and its legacy*. Chapel Hill, NC: University of North Carolina Press.

Rosenthal, R. M. (1994). Science and ethics in conducting, analyzing, and reporting psychological research. *Psychological Science, 5*, 127–133.

Rostain, T. (1997). Ethics Lost: Limitations of Current Approaches to Lawyer Regulation. *Cal. L. Rev. 71*.

Sobhy, S. & Redwan, A. (n.d.). Ethical Research for Scientific Research. [Power Point Presentation]. https://www.coursehero.com

Sokoli, D., Barani, M., Kiseri, B.& Shala, K. (2020). Ethics in Clinical Research on Application of Virtual Articulators in Dentistry. Proceedings of the 9th Annual International Conference. (pp. 9-15). Kosovo: University of Business and Technology.

Wagle, K. (2020). *Research Ethics: Definition, Principal and Advantages*. Public Health Notes. https://www.publicheathnotes.com

Weinbaum, C., Landree, E., Blumenthal, M.S., Piquado, T., & Gutierrez, C.I. (2019). *Ethics in Scientific Research: An Examination of Ethical Principles and Emerging Topics*. RAND Corporation.

What are the Ethical Limits of Research? (n.d.). https://www.lifepersona.com/what-are-the-ethical-limits-of-research#:~:text=Limits%20of%20research%20ethics%201%201%20-%20Honesty,...%208%208-%20No%20discrimination%20...%20Weitere%20Elemente.

What is the ethics of research. (n.d.) https://www.shelldar-verlag.de.com

White, J. J. (1980). Machiavelli and the bar: Ethical limitations on lying in negotiation. *Law & Social Inquiry,5* (4), 926-938.

Winkler, E.R. & Coombs, J.R. (Ed). (1993). *Applied ethics: A reader*. Blackwell.