CHAPTER

11 Ethical approaches to service, research, publication, and presentation

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Daily, we make decisions concerning right and wrong. However, those decisions tend to be made in a hurry or without much attention to logic. Even though there might be a disregard for the public health impact of individual choices, the truth is that those decisions may hurt others. All individuals live by some sort of moral norms, but within a diverse society, many choices appear "right." Ethics exist outside of personal and normative morals and are often tested when we make decisions for ourselves or as a part of a group, organization, or society. Lines become blurred when one weighs the impact of human actions against what is morally and ethically correct. Some of the common examples would be the role of vaccines and their allocation (Abbasi et al., 2020), end-of-life decisions (Karnik & Kanekar, 2016), and using gene alteration of stem cells (https://medlineplus.gov/genetics/understanding/therapy/ethics/). These controversial topics influenced by beliefs, peers, and personal experiences make addressing them a challenging lifelong process.

Ethical principles dominate healthcare discussions. Why do we need to behave ethically? One of the reasons is that it provides a sense of purpose and meaning (Smith, 2018) in one's life, which thrives in a vibrant society. Knowing it is the right thing to do, no matter what provides consistency and order in decision-making.

The purpose of this chapter is to discuss and explain the role of ethics for the health educator in the community and the classroom, besides the volunteer role of students. The authors hope this chapter provides an in-depth view of the use of ethical principles and norms in practice, research settings, and scientific and public presentations. This chapter will additionally have a case study related to one or more of these areas, followed by discussion questions about critical thinking.

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Role of ethics in service—Student volunteer work and internships

An ethical approach to faculty service and student volunteer work is essential in maintaining integrity and avoiding a lack of propriety. Ethical standards guide public organizations to do public good and reach public service goals (https://degree.astate.edu/articles/public-administration/ethics-in-public-service.aspx).

Student volunteer work and internships are often encouraged as avenues for giving back to the community, expanding learning opportunities, and getting first-hand work experience (Hamelin & Paradis, 2018). However, ethical issues may need to be addressed when working with students. Generally, the ethical considerations for volunteer work should consider the benefits to the student, the host community, and the potential harm to volunteers and the community (America Nurses Association [ANS], 2019). As much as volunteer work is beneficial, good intent only sometimes results in a positive impact. Based on ethical issues associated with internship and volunteer work, researchers have made the following recommendations aimed at the prevention of ethical breaches (ANS, 2019):

- Review the ethics statement of the host organization
- Explore the reputation of the organization
- Partner with the local community and identify a contact person
- Work within the predetermined guidelines
- Understand the organization's structure
- Observe the chain of command
- Recognize any ethical violations and contact their supervisor.

Ethical approaches to research

As per Cottrell et al. (2023, p.131), research ethics comprise "principles and standards which along with underlying values guide the conduct relevant to making research decisions." Broadly, ethical research applications are divided into three parts: Prior to the research, during the research process, and after the research is complete.

Prior to the research process

The first step in planning the research process is selecting the right research team. Ideally, this team includes a methods person, a statistician, and a content expert. The team requires enough expertise to conduct the research ethically and unbiasedly.

Secondly, it is of utmost importance that primary researchers and the coinvestigators of a research study familiarize themselves with the rules of conduct of the Ethical Review Boards and the Institutional Review Boards at their respective institutions. Suppose a student is involved in the research process. In that case, the student needs to undergo training through the course work via a research methods course

and via being involved with appropriate research-related training per their respective institution requirements. The CITI program (https://about.citiprogram.org/) is one example of a research-based training program with modules that must be completed and maintained every 3 years for the training to be valid. The training aims to familiarize the researchers with the ethical conductance of the research process. Additionally, investigators can read peer-reviewed journal articles and Institutional Review Board Reports on research ethics and the nuances of conducting an ethical research study.

The third step involves the drafting of an Institutional Review Board Proposal. Institutional guidelines and rules for drafting an Institutional Review Board Proposal are carefully written for ethical compliance with federal rules. Researchers must pay close attention to aspects of informed consent (autonomy) and do no harm (beneficence) by complying with the privacy and confidentiality standards applicable to the research study (UA Little Rock Research Protection Program Policies & Procedures, 2018).

Conducting the research

Gaining access to human study participants and recruitment guidelines must be tightly followed. Obtaining informed consent and maintaining participant privacy in terms of anonymity and confidentiality is extremely important as a part of maintaining the ethical soundness and integrity of any study (https://www.evergreen.edu/humansubjectsreview/confidentiality). Again, the Institutional Review Board at one's institution should be able to guide the health education specialists in this process. If there are changes in protocol or adverse events during the research, the Institutional Review Board must be notified.

After the research is completed

Finally, after the research is completed, it needs to be disseminated so that it does not misrepresent the study data or provide false conclusions. Also, it is essential to declare any conflicts of interest arising from this study and any financial sponsorship. The research outcomes must be shared without bias or influence from outside sources (https://www.cmu.edu/research-compliance/conflict-of-interest/conflict-of-interest-overview.html).

Ethical approaches in publications

Academic publications peer-reviewed publications are closely monitored for scientific misconduct or ethical violations by the Committee on Publication Ethics for most peer-reviewed journals. This misconduct can happen at various levels, such as (a) false claims or misrepresentation of data, (b) plagiarism and citation manipulation, and (c) authorship levels and criteria for authoring a publication. An example of false claims in health education would be including false findings demonstrating that a health promotion program had beneficial outcomes for the community's well-being

when in reality, the program evaluation demonstrated a failure to produce any beneficial results. An example of misrepresentation of data in a public health trial would be showing partial results of a community trial for a drug designed for cardiovascular benefit and hiding valid and important findings which show neutral benefits or, more alarmingly, drug toxicity.

Plagiarism or citation manipulation (Sankaran, 2016) happens when authors include someone else's thoughts, ideas, or work without attributing credit to the source. Plagiarism can happen when textual figures, images, tables, and other graphics in one's manuscript or scientific writings are used without obtaining permission from the original authors (whether it may be an organization or an individual author) and additionally violates copyright laws. Authors often do citation manipulation (Committee on Publication Ethics, 2012) by self-referencing them in the manuscripts they prepare for various journals. It is a common practice to self-reference oneself if the citation is valid and relevant to the article and demonstrates an addition to the scientific literature such that it advances the field. However, when it becomes excessive, then it could be considered unethical (Van Noorden & Chawla, 2019). What is 'excessive' is not clearly defined. It varies from field to field and depends on the number of authors for a particular study and whether it is a part of a research group or a consortium (Szomszor et al., 2020). A repository of retraced academic papers due to research and ethical misconduct (https://retractionwatch.com/) helps as a constant watchdog in maintaining scientific and ethical integrity. Enago academy estimates that 500–600 scientific papers are retracted yearly for misconduct or honest errors (https://www.enago.com/academy/database-of-retracted-papers-launched-for-researchers/).

Various journals and scholarly works have varied authorship criteria for scientific writing. As per the 7th ed. APA manual, authorship depends on making a substantial contribution to the manuscript and accepting responsibility for a published work (American Psychological Association, 2020). Ideally, research collaborators should make the authorship decisions earlier in the research process, including the authorship criteria and the order of authors for the scholarly work. For new scientific investigators, the agreed-upon criteria are put into writing to avoid concerns prior to or during the research process (Albert & Wager, 2003). The Committee on Publication Ethics provides various resources for detecting scientific misconduct related to data falsification, misrepresentation, and suspicious authorship claims (https://publicationethics.org/authorship).

Finally, when a manuscript is completed and submitted to a journal, it undergoes rigorous review by the editors and the reviewers. During this process, the manuscript is confidential, and editors and reviewers may not use any of its contents toward their writing or advancement of their career without the author's consent (American Psychological Association, 2020). Furthermore, as per the copyright act of 1976, all unpublished work of the primary author is protected by law (Copyright Law of the United States, 2021).

Ethical approaches in presentations

Professional presentations, which means presenting textual or multimedia materials by individuals or organizations on websites, blogs, or social media, are common these days.

Websites and social media

Various health organizations, for example, American Public Health Association and Society for Public Health Education, have public-facing websites or webpages along with a robust social media presence. By definition, "professional ethics" are rules of acceptable conduct that members of a given profession follow (https://dictionary.apa.org/professional-ethics). By this definition, all the members of any organization, including health organizations, are expected to have acceptable codes of conduct in their dealings – such as creating presentation materials and disseminating them through appropriate communication channels. The members must abide by this code when accurately representing themselves as officers or members of a large organization. This code of conduct is outlined in the Code of Ethics for Health Education Specialists (CNHEO, 2020).

Opinions/blogs/presentations

At an individual level, health education specialists must be truthful about their qualifications and expertise and maintain a professional demeanor when creating and disseminating materials to the public. This code applies to them when they make scientific presentations at conferences or public presentations to the community (https://www.nchec.org/code-of-ethics). It is also essential to provide one's designation whether a health education specialist is CHES (Certified Health Education Specialist or MCHES (Master Certified Health Education Specialist) certified to provide more credibility to their voice when making personal opinions on community health issues (https://www.nchec.org/news/posts/a-day-in-the-life-of-a-health-education-specialist).

Integrity in research methods

One ethical issue researchers and research institutions face is research integrity. What is research integrity? Why is it important? How can institutions support integrity? Shaw and Satalkar (2018) define research integrity as adherence to honesty, transparency, and objectivity while conducting research. Thus, a mere absence of misconduct does not necessarily imply integrity. There are times when misconduct is unreported or unnoticed. Additionally, research integrity demands verifiable research methods, adherence to rules, regulations, and guidelines when reporting results, and following professional codes and norms (NIH, 2022).

The National Research Council ([NRC], 2002) classifies integrity into individual and institutional (check Table 1).

Table 1 Classification of integrity.

Individual integrity	Institutional integrity
Honesty	Standards of excellence
Accuracy	Adherence to the law
Fairness	Trust
Transparency	
Protection of human subjects	
Human dealing with animals	
Responsibility in research	

According to Halevy et al. (2022), the two biggest challenges regarding integrity are policy and technicality. For instance, social media's presence and wide use and the loose connection between free speech and unpleasant content pose integrity issues. Because of this, researchers are expected to respect free speech but simultaneously be compelled to correct misinformation or protect participants' privacy.

Why integrity?

Studies have reported an increase in research misconduct (Vasgird, 2007). Researchers have shown how unethical behavior might harm society and the scientific body (Shamoo & Resnik, 2009). Examples are harm to public health, corruption of records, passing policies based on false data, and loss of financial research support. Some researchers posit that the implementation of responsible conduct of research (RCR) is a preventive measure instead of a cure to unforeseen consequences with dire outcomes (Vasgird, 2007). Even so, some of the requirements established by institutional review boards tend to lag compared to the pace experienced in social media. Even though social media companies have developed mechanisms to tackle integrity, it is still a complex, complicated, and laborious process. For example, Meta, Facebook's parent company, requires verification that content is posted by humans, determining policy violations, and recommending actions such as deletion. Thus, with millions of content released in different languages daily, it takes much work to determine and penalize the lack of integrity. At this point, it is worth asking how researchers ensure integrity amidst social media attacks. One suggestion is that researchers, with full transparency, enhance reproduction, expansion, and open debate on individual or group research findings.

Institutional support of integrity

NRC (2002) suggests several ways that institutions can support integrity:

- Uphold measures that support the responsible conduct of research
- Respect researchers and support staff
- Support systems and mentoring programs for upcoming researchers
- Advocate adherence to research rules and policies

Table 2 IRB protocol reviews sections.

Ethical	Administrative	Scientific
Rational and minimal risks	Proposals and budgets are compliant	Soundness and worth of the hypothesis
Equitable choice of subjects	Examine conflict of Interest	Procedure to prove the hypothesis
Informed consent		Appropriateness of the methods to be used
Additional safeguards to vulnerable		Sample size justifications
Monitoring and evaluation		

- Identify and manage conflicts of interest
- Investigate scientific misconduct and take appropriate action
- Offer educational opportunities on integrity matters and continuous quality improvement

A study by Resnik and Dinse (2012) focused on the enforcement of the RCR in institutions of higher learning and found that all the sampled institutions ($N=144$) had RCR enforced. However, 47.9% implemented federally required RCR, whereas 52.1% required extra training. A logical assumption based on this study is that institutions have RCR in place. However, the challenge remains with ensuring that there is integrity. For instance, some institutions might not have these support systems or find them hard to enforce.

In compliance with the law and guidelines, research institutions are required to protect research participants' rights, and safety. To that end, Kim (2012) posits that all research institutions are required to establish IRBs that enforce ethical issues in three core sections (check Table 2). Specifically, IRB ensures that the researcher and research institutions comply with the protocol.

Despite IRB being tasked with enforcing ethics, there has been criticism regarding efficiency. Some common criticisms are delays in approval or feedback, disparate judgment, inconsistent practices, and going out of scope or mandate of practice (Rodríguez et al., 2017).

In the meantime, social media network websites have provided more research opportunities. Nevertheless, these opportunities have faced numerous challenges and risks. Researchers (Moreno et al., 2013) point to four key areas of concern: determining whether the proposed project meets the criteria as human-subjects research; conducting interactive research with online individuals you have not met; online consent forms, and confidentiality issues. With the increasing popularity of social media websites, it is recommended that IRBs update their protocol to conform to developments. For instance, researchers using Meta can analyze owner pages rather than their profiles. Another example could be allowing parental consent forms to be signed via the Meta page.

Acknowledging the contribution of others

Contributions of others could be in the form of authorship, references, or acknowledgments. An essential component of upholding research integrity is determining authorship and design responsibility while giving credit for intellectual work (Harvard University Faculty of Science [FAS] Research Administration Services, 2022). This quote summarizes understanding why it is important to determine the author and how it relates to integrity. In the previous paragraphs, we discussed the meaning and essence of integrity. Failing to acknowledge a deserving author amounts to a lack of integrity. Likewise, including "authors" that have not met the requirements to be authors or coauthors is dishonesty that amounts to a lack of integrity. Just because an individual was involved in a research project does not qualify one to be a coauthor. However, depending on one's contribution, they may not be coauthors, but they can be acknowledged. At this point, we might ask ourselves, what are the criteria for being an author or coauthor? Different journals and institutions have their specific criteria. For instance, according to Harvard FAS, there is a three-point criterion for authorship:

> *"Each author is expected to have made substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data; or the creation of new software used in the work; or have drafted the work or substantively revised it; …To have approved the submitted version (and any substantially modified version that involves the author's contribution to the study); …To have agreed both to be personally accountable for the author's own contributions and to help ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated and resolved" (Criteria for Authorship section).*

To be an author implies earning credit and responsibility for the research project. Failure to acknowledge the source amounts to plagiarism by breaking the link between the researcher's ideas and their deserved credit (Anderson & Steneck, 2011). It misrepresents records about authorship and responsibility.

Acknowledgment is an opportunity for authors to state the contributions of specific individuals and organizations to the research process (Paul-Hus & Desrochers, 2019). This recognition might include funding agencies, anonymous reviewers, participants, and staff.

Summary

In summary, the role of ethics in academia and the community is extremely important, such that instructors and community practitioners of health education/promotion must abide by the Code of Ethics for Health Education Professionals. The ethical tenets in this Code guide while conducting and disseminating research, developing and distributing research via presentations, publications, and digital communication

modes like opinion pieces, blogs, and social media. Ethical integrity and infusion of the Code of Ethics for Health Education professionals are highly valued when it comes to faculty/students' engagement in volunteer-based service, relationships, activities, and community-based service-learning initiatives.

Case study

Three faculty members from different universities, came together to research a common interest: Does nudging improve vaccine uptake in the rural Midwest? During preresearch conversations, the researchers determined the assignment of authorship alphabetically by their last name since they all would contribute the same effort.

Over the next 7 months, the three researchers conducted a mixed-method research project and collaboratively assigned sections of the research paper. One of the researchers was assigned to do a literature review and write the paper introduction; another worked on the methods and results, and the last worked on the discussion and conclusion. When the manuscript was ready for submission, it was noted that some citations were missing information and not inaccurate. In addition, there were six incidents of plagiarism in the introduction. When confronted, the researcher assigned to the literature review and introduction informed the rest of the team that it was not his fault since he had assigned the literature review task to a graduate student.

Case study questions

1. What violation of research integrity do you see in this case study? Explain.
2. What actions could have preempted this violation of integrity?
3. 3.How could this have been avoided?

Chapter review questions

1. You are a faculty in health education/promotion supervising student internships for your program. What specific ethical approaches would you take such that there are no ethical violations between your role and the mission and vision of the organization with which you are collaborating?
2. What is the difference between plagiarism and misconduct while conducting research and disseminating it via publications?
3. What specific parameters does one need to follow while thinking about maintaining ethical approaches in presentations? Do they differ based on the presentation media?
4. What is the institutional role of maintaining ethical integrity among higher education professionals?
5. How does one maintain integrity in determining authorship in scientific publications?

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