Ethical and Practical Concerns about IRB Restrictions on the Use of Research Data

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ABSTRACT In response to researcher noncompliance with ethical and regulatory provisions governing research with humans, protocol deviations, and unanticipated problems with research, institutional review boards (IRBs) or institutions sometimes impose restrictions on the use of research data, although specific cases in which this happens are unlikely to be known publicly. We review IRB policies at top research institutions in the United States about restrictions on the use of research data and describe potential reasons for restricting the use of such data in the context of ensuring compliance with human subjects research standards. We also discuss ethical considerations related to restricting the use of research data and argue that IRBs have limited regulatory authority to take such actions. Finally, we offer recommendations regarding decision-making about restricting the use of research data and call for additional guidance in this area.

KEYWORDS human subjects research, research data, institutional review boards, research compliance, research ethics

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In response to researcher noncompliance with ethical and regulatory provisions governing research with humans, protocol deviations, and unanticipated problems with research, institutional review boards (IRBs) or institutions sometimes impose restrictions on the use of research data, although specific cases in which this happens are unlikely to be known publicly. For example, we recently became aware of a case in which an IRB prohibited the use of research data about a participant in a clinical trial who had inadvertently received an incorrect study intervention, fortunately without suffering any ill effects. The error occurred near the end of the study, the data obtained prior to the protocol violation promised to be valuable to the integrity of the study (which was using an intent-to-treat analysis), and the participant wanted the data to be used. On appeal, the IRB reversed its decision. In another case, the National Institutes of Health (NIH) restricted the use of research data following the discovery of protocol deviations that did not appear to place research subjects at risk or to compromise the integrity of the data.[1] In another instance, a researcher took legal action against Brown University when the IRB prohibited the use of research data obtained after the researcher had made modifications to the financial incentives provided to research subjects without the IRB's approval.[2] This case was settled, so detailed information about it is unavailable.

It is understandable that those charged with oversight of research (such as IRBs, data monitoring committees, regulators, and institutions) would want to take steps to address problematic research practices. However, imposing restrictions on the use of research data raises important ethical, regulatory, and practical issues that warrant examination.

The broader issue of restricting the use of unethically obtained research data has been discussed for some time. Some have argued, for example, that data obtained from research with victims of unethical Nazi medical experiments should not be published.[3] However, such

profound atrocities do not reflect the broad types of researcher noncompliance with ethical standards and regulatory provisions governing research nor shed much light on whether restrictions on the use of research data should be imposed in response to all types of noncompliance. And there may be circumstances when not publishing research data obtained in violation of ethical standards or regulatory provisions fails to honor the contributions of research participants and may foreclose the possibility that the research data will provide some type of scientific benefit. Alternatively, publishing the data along with an editorial or commentary that outlines the ethical pitfalls of the research provides transparency and an opportunity to educate others about the ethical conduct of research.[4] While the Declaration of Helsinki simply states that "[r]eports of research not in accordance with the principles of this Declaration should not be accepted for publication,"[5] the American Medical Association's *Code of Medical Ethics* suggests that not all unethically obtained research data should be treated the same and that it is the ethically problematic aspects of research data that should be identified.[6]

In addition, restrictions on the use of research data should be imposed when research violates the standards for the responsible conduct of research (e.g., plagiarism or the falsifying or fabrication of data). Of note, some contend that the issue should be addressed by journal editors,[7] funders, and researchers' institutions, rather than by IRBs.

In this article, we focus on the specific issue of IRB restriction on data use with the hope of prompting further discussion about it. To do so, we first review IRB policies about restrictions on the use of research data at top research institutions in the United States. We then describe potential reasons for restricting the use of research data in the context of ensuring compliance with human subjects research standards and discuss ethical considerations related to data-use restrictions. Although we argue that IRBs have limited regulatory authority to restrict the use of research data, we offer recommendations regarding decision-making about data-use restrictions and call for additional guidance in this area.

IRB POLICIES

To get a general sense of the nature and prevalence of IRB policies regarding restrictions on the use of research data, we conducted a web-based review of publicly available policies on this topic at the 20 institutions that received the most research funding from the NIH in 2018. We selected this sample because these institutions would be expected to review a high volume of research and therefore would be most likely to have dealt with this issue and developed relevant policies. None of the IRBs at these institutions have a separate policy on data-use restrictions. Instead, the issue is generally described in the context of broader noncompliance policies.

Policies about restrictions on the use of research data varied at the institutions in our sample (see table 1, which is available online; see the "Supporting Information" section at the end of this article). The IRB is given the authority to restrict the use of research data at three of the institutions (Emory University; University of California, San Diego; and the Fred Hutchinson Cancer Research Center). Policies at four institutions indicate that the issue should be referred to the designated institutional official or other institutional authorities who have authority to restrict the use of data (University of Michigan, Ann Arbor; University of North Carolina at Chapel Hill; University of Washington; and Washington University in St. Louis). Thirteen institutions have general provisions allowing the IRB, the designated institutional official, or other institutional authorities to take corrective measures as appropriate, but do not specifically mention restricting data use as one of the available measures (Johns Hopkins University School of Medicine; University of Pittsburgh at Pittsburgh; Massachusetts General Hospital; Brigham & Women's Hospital; Columbia University Health Sciences; Yale University; Duke University; University of California, Los Angeles; Icahn School of Medicine at Mt. Sinai; Stanford University; University of California, San Francisco; University of Pennsylvania; and University of Wisconsin at Madison).

POTENTIAL REASONS FOR RESTRICTING THE USE OF RESEARCH DATA

While restricting the use of research data may seem to be an appropriate response to noncompliance, protocol deviations, and unanticipated problems with research, it is arguably important to make explicit the underlying rationale for taking such a mea-

sure. At a very basic level, restricting data use might be considered a form of punishment for lack of compliance with accepted research practices. On this view, the punishment relates to foreclosing the possibility that researchers will benefit personally or professionally from the final products of unethically or illegally conducted research, for instance, by recognition through presentations and publications. In cases where data were unethically obtained, such an approach is justifiable. For example, if subjects have not provided consent to use of their personal data, then allowing use of their data would only compound the affront to their autonomy. In cases where data are gathered without the requisite IRB review and approval, restricting data use also appears justifiable because, without such a sanction, there is no disincentive for researchers to comply with the most basic requirement of IRB review and approval before undertaking research with human subjects. However, where there are lesser forms of noncompliance, such as an error in protocol administration that did not result in harm to participants, and corrective actions can be implemented to minimize the possibility of similar future events, restricting data use does not seem a commensurate response, especially since prohibiting the use of the data would frustrate the contributions made by participants to the research enterprise. To the extent that the institutional policies we surveyed address the circumstances under which data-use restrictions would be warranted, they tended to be based on an assessment of the severity of the noncompliance or when there is a finding of serious or continuing noncompliance.

ETHICAL CONSIDERATIONS IN RESTRICTING DATA USE

To assess the appropriateness of restricting data use, the impact on participants, investigators, and the research community should be considered, as should the ethical implications of restricting the use. First, restricting data use fails to respect the participants who gave consent and contributed to the research endeavor, including devoting their time and bearing the burdens of research participation (such as examinations, biopsies, and survey responses). As a related matter, research participants affected by a data-use restriction may feel strongly that their data should be used. Second, restricting data use wastes resources that were invested in the research, regardless of the source(s) of this investment. If the data are not used, this investment of scarce research funds and professional efforts will have benefited no one and will have resulted in no presented or published findings. Third, if only selected data are restricted, analyses of only the unrestricted data could be biased, endangering the validity of the findings in general. Such concerns are analogous to those addressed in U.S. Food and Drug Administration (FDA) guidance about the requirement to analyze data obtained from participants prior to the time they might voluntarily withdraw from research.[8] Finally, because of this impact on participants, investigators, and the research community, restricting data use should be limited to instances of serious or continuing noncompliance, serious research misconduct, or compromises to the integrity of the data.

> Restrictions on research data use by an IRB should be reserved for instances of serious or continuing noncompliance or of the possibility of direct harm to subjects from use of the data.

REGULATORY AUTHORITY AND LIMITATIONS

According to the U.S. federal regulations governing human subjects research (the "Common Rule") and corresponding FDA regulations, an IRB's primary authority is to "approve, require modifications in (to secure approval), or disapprove all research activities"[9] and to "suspend or terminate approval of research that is not being conducted in accordance with the IRB's requirements or that has been associated with unexpected serious harm to subjects."[10] In cases of significant noncompliance with regulatory requirements and/or an approved protocol, however, IRBs may not wish to adopt the most severe sanction—termination of research—but may instead resort to less severe alternatives, which may include reconsenting subjects with new information relating to risks and benefits, notifying subjects of noncompliance or protocol deviations,

retraining investigators and research team members in human research protections, or more closely monitoring the investigator's prospective research activities. In more serious cases, IRBs may suspend an investigator's privileges to conduct research, and some IRBs may forbid use or publication of human subjects data that have been obtained in violation of an approved protocol or in contravention of applicable law.

Nevertheless, as a matter of explicit regulation, IRBs do not have the authority to impose any sanction outside of approving, disapproving, suspending, or terminating a research protocol. In seeking a firm basis for broader IRB authority, including authority for a set of sanctions more intermediate than suspension or termination of research, some IRBs have sought and obtained from their institutions a formal grant of institutional authority under which they may impose such actions as forbidding publication of data unethically obtained or requiring the retraining of errant investigators in human subjects research requirements, as a prerequisite to continuing IRB approval.

In 1978, before the adoption of the current system of comprehensive human subjects research regulations in the United States, the National Commission for Protection of Human Subjects of Biomedical and Behavioral Research noted that in order to impose sanctions on investigators, research institutions would need to follow their own policies and procedures for faculty or medical staff discipline:

> [I]n imposing restrictions [on noncompliant investigators], the institution may restrict research only if it follows its own governance procedures, which are usually incorporated into the investigator's contract of employment with the institution. Failure to follow those procedures may bar the institution from imposing sanctions on an investigator who fails to comply with IRB requirements. It may also technically invalidate institutional assurances, because the IRB would lack authority to do what it is assuring it will do.[11]

Thus, the National Commission assumed that before an IRB could impose sanctions or order corrective actions, it would have to comply with due process protections required by institutional policies.

Despite the lack of express authority to forbid use of research data gathered unethically or in noncompliance with laws, regulations, or institutional policies, the IRB does have the express authority to suspend or terminate the research itself, which, if done before the end of a study, would essentially impair the investigator's ability to gather the full data set proposed in the protocol. This, in turn, could severely impede the investigator's ability to use those data for formal publications or presentations, first, because a full data set would not be available and, second, because many journals and professional societies require that all data published or presented be collected under an IRB-approved protocol, and data collected in a study terminated for noncompliance or unethical practices would not seem to meet that standard. Reasoning from the structure of an IRB's authority to disapprove, suspend, or terminate research, one could argue that forbidding use of research data in these cases is merely a sanction that is necessary for an IRB to be able to exercise this authority. Indeed, if an IRB cannot forbid use of illegally or unethically gathered data, then any investigator could simply charge forward without any IRB review or approval, knowing that, in the end, he or she could still use the research data that have been gathered. In other words, there is a strong argument that despite the lack of explicit authority to forbid the use of data in these circumstances, this power must be recognized as a necessary corollary of the IRB's explicit authority to suspend or terminate a study. Otherwise, the IRB's primary authority could be undermined and subverted.

The primary role of an IRB is to protect human subjects by assuring that studies under its jurisdiction are conducted under the Common Rule, FDA, and/or other applicable standards. These standards embody the principles for the ethical conduct of research. IRBs thus have implied authority to impose any number of conditions on researchers to assure that human subjects research is conducted in a way that is protective of subjects and consistent with applicable regulations. Therefore, the actions that IRBs take concerning researchers who violate or disregard standards typically should, where feasible, prevent a researcher from undertaking research that might inappropriately endanger human subjects.

An IRB should generally be reluctant to have institutional authority delegated to it under which it may impose sanctions on investigators that are not directly related to ensuring subject safety and welfare. First, exercising such authority is not generally within the train-

ing or expertise of IRB members. Second, imposing sanctions (as opposed to requiring corrective actions) threatens to distract the IRB from its primary function of protecting subjects. Third, the federal regulations do not provide a mechanism through which investigators may appeal IRB sanctions, and the investigator's right to appeal any IRB sanction would be governed by institutional policy only. An IRB's acceptance of a delegation of authority to discipline investigators may, in effect, bypass or preempt other institutional processes that include well-defined rights, including appeal rights, for a researcher. Further, because much human subjects research occurs in academic or medical settings, an IRB's assumption of a disciplinary role may bypass faculty or medical staff procedures that are, at least in some cases, required by law. Institutional officials, who often occupy senior executive roles within institutions, should be relied upon to trigger disciplinary or sanctions processes when human subjects research violations are so serious as to raise issues regarding continued employment or affiliation.

For all these reasons, regardless of whether an IRB finds its authority to forbid use of research data implied in its authority to suspend or terminate research or whether the IRB has been expressly granted this authority by institutional policy, forbidding use or publication of data obtained in violation of applicable standards would be appropriate under certain circumstances: (a) when consent was not obtained in compliance with the federal regulations or IRB authorization to allow the researchers to have gathered and to use those data, (b) when using or publishing the data would likely result in direct harm to subjects, or (c) when the failure of researchers to adhere to regulatory and ethical standards has impaired the data's integrity. If, on the other hand, subjects have consented to the use of the data gathered, there have been minor or inadvertent violations of standards, and there is no reason to doubt the integrity of the data, then forbidding researchers from using research data arguably harms not only the public good but also the altruistic interests of individuals who voluntarily enrolled in the study and thus experienced at least some inconvenience and burden.

RECOMMENDATIONS

Based on the foregoing discussion, we offer a set of recommendations regarding restrictions on data use.

Recommendation 1. Restrictions on research data use by an IRB should be reserved for instances of serious or continuing noncompliance or of the possibility of direct harm to subjects from use of the data. In this context, serious or continuing noncompliance would include intentional recklessness, failure to seek and obtain IRB approval of studies for which such approval is required, failure to obtain participants' consent in situations in which it would be required, and scientific misconduct, although the latter would be primarily within the remit of research integrity officers or other institutional officials with such responsibility.

Recommendation 2. In other situations, IRBs should generally not be involved in adjudicating restrictions on research data use; instead, institutional authorities, such as a research integrity officer or others similarly positioned, should do so with appropriate mechanisms that attend to due process. IRBs should focus on actions that aim toward protecting those enrolled in the research. Although this approach may be relatively easy to implement in traditional research institutions regardless of whether a local, central, or independent IRB is providing oversight, the approach may involve complex considerations for investigators working in local clinical practices where human subjects research oversight is provided by an independent IRB. Consequently, securing both prior agreement on the range of corrective actions that an independent IRB may impose and explicit agreement by the researchers to comply with those corrective actions would be prudent.

Recommendation 3. The U.S. Office for Human Research Protections should offer guidance on the IRB's authority to restrict use of the research data, preferably finding such authority implied in the structure and nature of an IRB's responsibilities and prerogatives.

Recommendation 4. Institutions should ensure that their human subjects research policies explicitly recognize whether, when, and how the IRB can restrict the use of unethically or illegally collected data.

Recommendation 5. Because human research protection programs have a broader remit than IRBs alone and most decisions about potential data-use restrictions

should arguably be taken at an institutional level, the premier accrediting entity, the Association for the Accreditation of Human Research Protection Programs, should develop specific standards regarding such measures to augment its existing requirements in cases of noncompliance.[12]

Recommendation 6. In order for peer reviewers, editors, regulators, and those reading scientific publications to be able to assess whether scientific findings are biased, investigators and sponsors should be required to disclose any restrictions on data use that have been imposed either by IRBs or institutions, as well as whether a study, though approved by an IRB, was later suspended or terminated by that IRB.

Recommendation 7. While investigators and institutions may have understandable privacy concerns in cases where research data use is restricted, much could be learned if cases were somehow made available for discussion and deliberation. Accordingly, researchers should be encouraged to offer case reports about such instances, and journals should be encouraged to publish those reports.

These recommendations are designed to be respectful of research participants, lead toward the fair treatment of researchers, and minimize the waste of research resources. Nevertheless, it will be important to assess how they work in practice and modify them if necessary. Regardless, we hope that they help to minimize the use of inappropriate restrictions of research data use and to start a more transparent conversation about this issue. ♦

SUPPORTING INFORMATION

The table is available in the "Supporting Information" section for the online version of this article and via *Ethics & Human Research*'s "Supporting Information" page: https://www.thehastingscenter.org/supporting-information-ehr/.

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