7.3.3 International Research

Biomedical and health research in international settings often raises special ethical questions, particularly when research is carried out in resource-poor settings by sponsors or researchers from resource-rich countries. Physicians engaged in international research may encounter differing cultural traditions, economic conditions, health care systems, and ethical or regulatory standards and traditions than in the US.

While fundamental requirements to ensure scientifically sound research and to protect the welfare, safety, and comfort of human participants apply in any research setting, physicians who are involved in international research may need to address special concerns about selection of research topic and study design, informed consent, and the impact of the research on the participating community.

In addition to following general ethical guidelines for biomedical and health research, physicians who are involved in international research have obligations to:

Study design

(a) Ensure that the research responds to a medical need in the region in which it is undertaken.

(b) Ensure that the research does not exploit the populations and communities from which participants will be drawn.

(c) Be sensitive to special considerations in assessing the risks and benefits of the research in the particular setting and employ a research design that minimizes risks to the participant population by:

  (i) ascertaining that there is genuine uncertainty within the clinical community about the comparative merits of the experimental intervention and the intervention that will be offered as a control for the population to be enrolled;

  (ii) obtaining relevant input from representatives of the host community and from the research population;

  (iii) considering the harm that is likely to result for the host community or research population if the research is not carried out.

(d) In some instances, a three-pronged protocol that offers the standard of care in the US, an intervention that meets a level of care that can be attained in and sustained by the host community, and a placebo may offer the most ethically desirable means for evaluating the safety and efficacy of an intervention in a given population.

Informed consent

(e) Ensure that a suitable process for informed consent is in place. If consent is to be meaningful, physicians (or other health professionals) who obtain consent must communicate with sensitivity to local customs. Notwithstanding, they should always ensure that individual participants are informed and that their voluntary consent is sought.

Impact on the host community

(f) Foster research with the potential for lasting benefits to the host community, especially when the research is carried out among populations that are severely deficient in health care resources. This can be achieved by:

(i) facilitating development of a health care infrastructure that will be of use during and after the research period itself;

(ii) encouraging sponsors to provide interventions that have been demonstrated to be beneficial to all study participants after the study concludes.

AMA Principles of Medical Ethics: I,IV,VII,VIII,IX

Background report(s):

CEJA Report 2-A-01 Ethical considerations in international research

COUNCIL ON ETHICAL AND JUDICIAL AFFAIRS 2 – A-01
Ethical Considerations in International Research
(Reference Committee on Amendments to Constitution and Bylaws)

EXECUTIVE SUMMARY

This report considers ethical dilemmas faced by U.S. physicians involved in international research, particularly in countries with developing economies and with healthcare infrastructures that are considered underdeveloped. This analysis traces some of the early historical development of ethics guidelines pertaining to research as well as some of the recent policy developments, from the Nuremberg Code to the latest revision to the World Medical Association's Declaration of Helsinki. These guidelines are examined in the context of the recent controversy spurred by clinical studies of HIV transmission from mother to infant, and also in relation to existing Opinions of the Code of Medical Ethics.

Overall, the report focuses on the need to foster trust as a necessary condition to the ethical advancement of science, and on the means to ensure the autonomy and protection of participants, as well as the need for meaningful collaboration between U.S. physicians and host countries. The report specifically considers the role of Institutional Review Boards (IRBs), the requirement of obtaining informed consent, and issues related to levels of care that can be offered in the context of clinical trials.

To guide the ethical conduct of international clinical research, the report recommends that international research proceed when studies are scientifically sound and answer a genuine question and after it has been approved by a U.S. Institutional Review Board. In turn, approval should be granted after careful review of risks and benefits, and a determination that a suitable informed consent process is in place. IRBs also should determine that the research corresponds to a medical need in the region where it is undertaken. Input must be provided by the host country and the research population. Finally, to ensure fairness in the conduct of international research, IRBs should foster research with potential lasting benefits and physicians should work to provide continuing beneficial study interventions to all study participants at the conclusion of the study

REPORT OF THE COUNCIL ON ETHICAL AND JUDICIAL AFFAIRS*

CEJA Report 2 – A-01

Subject: Ethical Considerations in International Research

Presented by: Herbert Rakatansky, MD, Chair

Presented to: Reference Committee on Amendments to Constitution and Bylaws (William J. Mangold, Jr., MD, Chair)

INTRODUCTION

In this report, the Council on Ethical and Judicial Affairs undertakes the analysis of ethical dilemmas faced by U.S. physicians either in their role as investigators conducting research in other countries or as decision-makers involved in deliberations related to funding or in the review of research to be conducted in other countries, in particular countries with developing economies and with health care infrastructures that are considered underdeveloped. However, it is worth noting that difficulties may arise any time research is conducted in a country with differing cultural traditions, health care systems, ethical standards, and laws, and that in all such instances, physicians will be called upon to recognize such differences and work to reconcile them in a manner that is consistent with high ethical standards. Also, the Council recognizes that multiple international entities already have promulgated guidelines on international research, [1, 2, 3, 4] It is not the intention of the Council to resolve the discrepancies that may exist among these documents, nor to endorse any particular document or specific set of guidelines, but rather to offer U.S. physicians ethical guidance that can assist them in evaluating the dilemmas inherent to international research.

In essence, ethicists have debated whether U.S. standards and regulations ought to govern research conducted in another country. Proponents of applying uniform standards have spoken of "universal" standards, which they oppose to a more "pluralistic" or "relativistic" ethical stance that would allow greater flexibility and arguably less stringent standards to govern research in developing countries.[5, 6, 7] Others have viewed this position as "imperialistic" and have argued that local standards better reflect the cultural norms and economic resources that influence the conduct of research in the country.[8] However, all fundamentally seek to avoid the exploitation of human subjects, even though they may argue over what constitutes exploitation and how best to protect against it.

This report begins with a short overview of the historical developments of ethical standards in the conduct of human experimentation before examining recent debates that erupted regarding the appropriate application of U.S. research ethics standards. The report also reviews relevant AMA policy. Building on this account of the development of international standards and the current challenges faced in their application, the analysis focuses on a determination of the relevant ethical considerations that should guide the ethical conduct of international research involving U.S. researchers.

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* Reports of the Council on Ethical and Judicial Affairs are assigned to the Reference Committee on Constitution and Bylaws. They may be adopted, not adopted, or referred. A report may not be amended, except to clarify the meaning of the report and only with the concurrence of the Council.

Historical development of research ethics guidelines

In order to examine the merits of the various arguments being put forward regarding the most appropriate standards for international research, it is important to be reminded, albeit briefly, of the historical development of international guidelines and the ethical principles that they embody. This exploration can begin with the Nuremberg Code,[1] which emerged out of experiments conducted during the World War II. Specifically, the Nuremberg Code consists of 10 principles that appeared as part of the written judgement in the *Trials of War Criminals Before the Nuremberg Military Tribunals.* These judiciary proceedings were undertaken to investigate the inhumane treatment research subjects – mostly prisoners detained in concentration camps – had suffered at the hands of Nazi scientists.[9]

The provision of the Nuremberg Code that is most often referred to states in part: "The voluntary consent of the human subject is absolutely essential." This first provision also provided the various elements that now comprise the requirements of informed consent in research, namely the legal capacity to give consent; the ability to exercise free power of choice (voluntariness), and knowledge and comprehension of the elements of the subject matter involved as to enable participants to make a decision (disclosure). Other provisions addressed the nature and conduct of the research, such that experiments should be purposeful rather than random and unnecessary, and should be conducted in such a manner as to avoid all unnecessary suffering. Even if the Nuremberg Code was not statutorily enacted in its entirety by any nation and did not have an immediate impact on the way experiments were conducted in the U.S.,[10] its basic requirement of voluntary consent evolved into a cornerstone of ethics in human experimentation.

Within a decade, the World Medical Association identified the need for a document written by physicians that also would address "therapeutic" experiments, in addition to the "non-therapeutic" experiments performed by Nazi scientists, which were detached from any intent to provide a therapeutic effect. The document that became known as the Declaration of Helsinki was issued in 1964 and has been revised sporadically. It recently underwent a fifth revision, discussed below.

Other than the two documents referred to above, there has been a proliferation of research guidelines by international and national entities. Among them, the Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organization issued in 1993 the "International Ethical Guidelines for Biomedical research Involving Human Subjects."[11] Because it was developed more recently, this document benefited from a considerable wealth of material on ethical issues in international research. The development of the document also drew from a broad group that was culturally and professionally diverse.[8] A co-chair of the steering committee that drafted these guidelines has argued that although they build on the legacy of the Nuremberg Code and the Declaration of Helsinki, they have avoided many of the pitfalls that were identified in the other two documents, and therefore should be considered as superseding them.[8] The CIOMS guidelines specifically address the situation where research is conducted in a host country that is different than the country which is sponsoring, financing or carrying out the research, in part or in whole. Two ethical obligations are set forth: (1) the research protocol should, at a minimum, meet the ethical standards that apply to research conducted domestically; and (2) the proposed research should be submitted for ethical review to appropriate authorities in the host country, so that they may determine whether it conforms to their own ethical standards.[11]

Recent controversy in conducting international research

As early as 1988, it was predicted that investigators conducting research in developing countries would face considerable ethical challenges, particularly in regard to AIDS research.[i] Pointing out that many researchers were unfamiliar with the cultures, customs and economic pressures faced by those countries, one author emphasized that guidance already existed through the ethical principles of autonomy, non-maleficence and beneficence, and justice.[12]

In an accompanying editorial,[6] Marcia Angell asked the questions that would become the focus of the debate that erupted almost ten years later: "Is it proper for Americans to insist that their ethical standards be applied to clinical research performed in other countries? Should ethical standards be substantially the same everywhere, or is it inevitable that they differ from region to region, reflecting local beliefs and custom?" Angell favored the view that ethical standards are not a matter of custom and that basic human rights must be honored universally, although some accommodations could be necessary to respect local sensitivities.

In September 1997, two commentators reported in the *New England Journal of Medicine* that studies on the reduction of maternal-fetal HIV infection being conducted in developing countries and funded by the U.S. government were ethically at variance with similar studies conducted in the U.S., in that participants in the control arm were given a placebo instead of zidovudine, which was considered the standard of care in the U.S..[13]

In the ensuing debate as to the appropriate standards that should be applied in conducting research in developing countries, both sides agreed that "identifying less expensive and similarly effective interventions would be of enormous benefits, given the limited resources for medical care in most developing countries." Proponents of placebo-controlled studies believed that such a design would be preferable to comparing shorter regimens to the standard one. They also believed placebo-controlled trials were ethical since subjects receiving the placebo were receiving the country's standard care. Opponents of placebo trials counter-argued that the studies were not undertaken in a state of equipoise. Furthermore, they argued that justifying the use of a placebo in terms of a local standard fails to differentiate between a standard that is established among known medical options and a standard that is the result of economic constraints.

Officials of the funding agencies that had made those trials possible responded to the criticisms by explaining that interventions that could be conducted in the U.S. might well be beyond the financial resources of developing countries or the capacity of their health care systems.[14] Also, some study could be more compelling in those countries because of the burden of disease. These authors suggested that placebo-controlled trials could be justified on the basis that the assignment to the placebo group carried no risk beyond that associated with standard practice, that such trials provided a faster answer with fewer subjects, and that answers about safety and the value of the intervention were definitive. Such answers could then allow a country to make a sound judgement about the appropriateness and financial feasibility of the intervention.

Revision of the Declaration of Helsinki

It is against this backdrop that the World Medical Association recently undertook its 5th revision of the Declaration of Helsinki. In particular, changes were favored by those who viewed the

[i] Much of the ethical debate regarding international research is centered on HIV/AIDS, which ranked fourth among the top 10 causes of the global burden of disease, 98% of which is borne by countries with low or middle incomes – check either WHO or World Bank, 1993, Investing in Health.

Declaration of Helsinki as defective in that it inappropriately maintained a distinction between therapeutic and non-therapeutic research and was out of touch with current ethical thinking, and therefore was violated frequently.[15] In particular, some argued that the requirement that every participant, including those in a control group, receive the best proven intervention was outmoded since it resulted in limiting the use of placebos to instances where no proven intervention existed when in practice placebo were much more widely used.[15] Other analysts, however, were concerned that such revisions could lead to an erosion of the protections offered to human subjects and that greater emphasis on utilitarian factors would dominate.[16]

The revision adopted in October 2000 abandoned the long standing distinction between therapeutic and non-therapeutic research, but now refers to "basic principles for all medical research" and "additional principles for medical research combined with medical care." It also emphasizes that a population can be chosen to participate in an experiment only if it is to benefit from the experiment. The World Medical Association maintained the requirement that new treatments be compared to the best existing methods, limiting the use of placebo to instances where the prevailing treatments are unproven. According to the leaders of the WMA, the protections of research participants had been strengthened through this round of deliberation, lasting 3 years.[17, 18, 19] Such strengthening, however, may amount to an emphasis of the general nature of ethical standards as opposed to legal standards, namely that guidelines are normative and often aspirational.[20]

National Bioethics Advisory Commission

American ethicists and researchers alike have recognized that much of the controversy that erupted over HIV research in developing countries stemmed from the application of the U.S. federal regulations, known as the Common Rule. In part, this led the National Bioethics Advisory Commission to investigate this debate and make recommendations regarding international research that could be implemented in the U.S. and govern investigators and sponsors conducting research abroad. A draft report was issued in the September 2000,[21] preceding by a week the revised Declaration of Helsinki. Although a final report is still pending, the extensive analysis of the Commission provides a valuable contribution to understanding the ethical issues at stake from a U.S. perspective. In particular, the Commission identifies two types of ethical requirements: substantial ones and procedural ones. This dichotomy also exists in relation to the substantial and the procedural requirements of informed consent.

Overall, the National Commission emphasized that research conducted in developing countries should correspond to health needs of the host country; that participants in the control arm generally should receive established, effective treatments that exist at the time the research is undertaken; that there be meaningful community involvement in the design and implementation of the research; that the substantive requirement of informed consent be complied with, that there be post-trial benefits to the community, as required by the principle of justice as reciprocity, and that efforts be made to enhance international collaborative research.

AMA Policy

Principally, three existing Opinions of the *Code of Medical Ethics* address ethical issues related to the conduct of research. All were developed in the context of research performed in the U.S., but their framework may be applicable to research performed elsewhere.

Opinion 2.07, "Clinical Investigation," which first appeared in the 1969 edition of the *Code of Medical Ethics* and was substantially amended by addition in 1994 and 1998, builds on the

foundation of the Nuremberg Code by stating that "No person may be used as a subject in clinical investigation against his or her will." This Opinion also mirrors the distinction that formerly was drawn in the Declaration of Helsinki regarding therapeutic and non-therapeutic research, referring to "clinical investigation primarily for treatment" and "clinical investigation primarily for the accumulation of scientific knowledge." In the former case, the physician cannot abandon the role of clinician and must exercise professional judgement and skill in the best interest of the patient, whereas in the latter case, social policy dictates that concerns for the individual must be primary and the advancement of scientific knowledge secondary. Also, in the context of clinical research mixed with treatment, disclosure should include possible therapeutic benefits, as well as a disclosure of alternative therapeutic options, two requirements that are not listed in the case of purely experimental clinical investigation. Finally, the guidelines provide two additional considerations in the context of clinical investigation mixed with treatment that are not discussed in the context of clinical investigation for scientific advancement. First, when the experimental treatment is the only potential treatment for the patient and full disclosure would pose such a psychological threat of detriment to the patient, such information can be withheld, a doctrine know as the "therapeutic privilege." In addition, although consent should be written, in circumstances where this is not feasible due to the physical or emotional state of the patient, exceptions are permitted.

Opinion 2.075, "The Use of Placebo Controls in Clinical Trials," issued in 1997, addresses the circumstances when it may be permissible to use a placebo. The Opinion emphasizes informed consent, and the role of Institutional Review Boards and investigators to ensure that each subject has been adequately informed and has given voluntary consent. To that effect, the Opinion requires that subjects be made aware that they can terminate their participation in a study at any time. In addition, the Opinion lays out a gradation along which the use of placebo is permissible. Specifically, it states that when research pertains to a condition that causes death or irreversible damage, a placebo cannot be employed if an alternative treatment would prevent or slow the progression of the illness. Where research is conducted on an illness that is characterized by severe or painful symptoms, the use of placebo may be permissible. However, the more severe the condition, the less justifiable would be the use of a placebo as a substitute for an existing suitable therapy. A similar methodology was reiterated in Opinion 2.076, "Surgical Placebo Controls," issued in 2000.

Finally, in Opinion 2.071, "Subject Selection for Clinical Trials," which was issued in 1998, the Council on Ethical and Judicial Affairs specifically recognized the need to protect socio-economically disadvantaged populations but also found that such populations should not be categorically excluded or discouraged from participation in research. Also, the Opinion emphasizes that when a subject has received a clear medical benefit from the experimental intervention that is under consideration for market approval by the Food and Drug Administration, the patient's physician, the investigator, and the product sponsor, should seek to provide access to the intervention, for example by having recourse to one of the FDA's special exception to final review and approval.

International Research: Applicable Ethical Standards

The fundamental question that is raised by international research is a matter of determining which standards should be applied when those of the country of origin of the investigators or sponsors differ from the standards that exist in the region where the research is to be conducted. In practice, this question has arisen primarily when Western researchers have conducted research in developing countries.

This single question, however, seems to be split into two lines of inquiry: first, whether the same ethical standards apply regardless of the location where the research is conducted; second, whether the standard of medical care that is offered in the control arm of the trial ought to be the standard available in the country of origin of the investigators or sponsors, or whether the experimental intervention can be measured against the local standard of care. It is important to note that these two questions often have been confounded.

Uniform Ethical Standards: The Role of Informed Consent

As multinational research trials become more of a common occurrence, the question of whether universal ethical standards govern the conduct of human subject research has become a controversial topic. At the core of this question lie the notions of autonomy and informed consent.

As briefly described above, informed consent emerged as a central requirement of human experimentation through the Nuremberg Code. Until the adoption of these guidelines, the ethical concern governing research had been one of beneficence: to control the risks presented to subjects.[22] The Code shifted the focus to include the distinct principle of respect for persons such that participants exercised their autonomy in deciding whether or not to volunteer in research. In the U.S., the Belmont Report, which was issued in 1979 by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, identified informed consent as one of the basic ethical principles that should underlie the conduct of biomedical research on human subjects.[23]

Since these developments, other ethical guidelines regarding research have been crafted around values of individualism to emphasize individual rights, autonomy, and self-determination. Some commentators, however, reject the idea that such standards cut across time, place, and culture. In particular they question the relevance of the principle of informed consent in cultures that do not promote individualism in the same manner that it is protected in Western countries. In this regard, they point to non-Western countries where people have a more relational understanding of personhood and place greater emphasis on collective rights to ask whether informed consent has meaning where personal choice is limited in relation to community good. There is concern that overriding the norms and values of a culture that grants decisional-making authority to the village chief, the local leader, or the head of the family may be disrespectful. To insist on obtaining consent from each potential research subject in these cultures may be morally incongruous.[24]

Proponents of the universal moral status of individual informed consent contend that the obligation to obtain consent transcends local custom or law, in that it is derived from a fundamental human right, the right to self-determination.[6] Some, in an effort to acknowledge and respect the local sensitivities of certain cultural settings, suggest that consent be required from community authorities, in addition to individual consent. Others simply propose that the local authorities be informed of the research. They all agree, however, that community involvement cannot override or substitute an individual's acceptance or refusal to participate. Indeed, such substitution would fail to promote respect for the individual, and thereby deviate from the substantive ethical standard of informed consent.

The fundamental concern of research ethics is to prevent the mistreatment of human subjects. The principal safeguard, in the context of research, is to seek informed consent from each potential subject. Regardless of whether the ethical standard of individual informed consent is universal, it becomes necessary to obtain it when research is conducted and participants solicited.

Carrying out the process of informed consent in various cultural settings remains a challenge and requires an understanding of the values from which community members derive meaning. Therefore, research investigators will need to devote careful attention to the design of the informed consent process, identifying sources of approval or authorization that are necessary, in addition to the consent of the potential participant. Investigators also should seek to ascertain that consent or refusal to participate is voluntary.

Standards of Care

The second component of the debate focuses on whether the best proven therapy must be used or whether placebo-controlled trials are justifiable in the developing world when a proven treatment already exists in developed countries. Fundamentally, this dilemma is one that translates into an ethical issue of risks and benefits. It requires the same analysis that is required of all protocols, namely a determination to be made by investigators and review boards as to whether the trial design stems from a state of equipoise, such that there is genuine uncertainty among the clinical community as to the comparative merits between the experimental intervention and the control treatment.[25]

From this perspective, researchers must use all the means at their disposal to review existing data, and those in charge of reviewing research protocols must use their scientific judgement to evaluate the hypothesis that is being studied. If the question is one that is scientifically unanswered, then the study should be designed to minimize the risks in the face of uncertainty. If a review board then determines that risks and benefits are favorably balanced, the research usually is deemed ethical. Indeed, there are no substantive guidelines as to what constitute an unacceptable risk or a significant benefit.

Clearly, difficulty remains in evaluating risks and benefits, including the risk of exploiting participants. This concern is heightened in the context of unbridgeable disparities in health care resources among countries,[26] whereby populations of developing countries may be used to advance scientific knowledge that result in greater or more immediate benefit to the industrialized world.[27]

To ensure that international research does not result in an exploitative outcome, arguments have been advanced that research should respond to needs of the local community and its research participants and that measures should be negotiated at the outset to ensure the implementation of a successful experiment among them. In this regard, some have called for “fairness as the principal rule of engagement” and have invited the broad participation of all stakeholders.[24, 29, 30]

CONCLUSION

Ethical research generally results from research designs that have been developed according to a sound scientific inquiry. Review boards are then required to safeguard research participants against coercion or abuse. Through the process of informing a potential participant of the nature of the research endeavor, and by seeking the participant’s voluntary consent, the process of informed consent is viewed as the principal ethical means to ensure the respect of individual participants. Overall, respect for persons, through the informed consent process, fosters trust, a necessary condition to the ethical advancement of science.

The protection of participants also requires review boards to determine that risks have been minimized and that potential benefits are in a favorable ratio. In the context of international research, the risk of exploitation warrants special attention and can best be attended to by

obtaining relevant input from the host country to ensure that the chosen population will not face unjustifiable risks. Despair or dire need for basic medical care should not justify undue risk, just as they cannot substitute for voluntary and informed consent.

RECOMMENDATIONS

The Council recommends that the following be adopted and the remainder of the report be filed:

Physicians, either in their role as investigators or as decision-makers involved in the deliberations related to the funding or the review of research, hold an ethical obligation to ensure the protection of research participants. When the research is to be conducted in countries with differing cultural traditions, health care systems, and ethical standards, and in particular in countries with developing economies and with limited health care resources, U.S. physicians should respect the following guidelines:

(1) First and foremost, physicians involved in clinical research that will be carried out internationally should be satisfied that a proposed research design has been developed according to a sound scientific design. Therefore, investigators must ascertain that there is genuine uncertainty within the clinical community about the comparative merits of the experimental treatment and the one to be offered as a control in the population among which the study is to be undertaken. In some instances, a three-pronged protocol, which offers the standard treatment in use in the U.S., a treatment that meets a level of care that is attainable and sustainable by the host country, and a placebo (see Opinion 2.075), may be the best method to evaluate the safety and efficacy of a treatment in a given population. When U.S. investigators participate in international research they must obtain approval for such protocols from U.S. Institutional Review Boards (IRBs).

(2) IRBs, which are responsible for ensuring the protection of research participants, must determine that risks have been minimized and that the protocol's ratio of risks to benefits is favorable to participants. In evaluating the risks and benefits that a protocol presents to a population, IRBs should obtain relevant input from representatives from the host country and from the research population. It is also appropriate for IRBs to consider the harm that is likely to result from forgoing the research."

(3) Also, IRBs are required to protect the welfare of individual participants. This can best be achieved by assuring that a suitable informed consent process is in place. Therefore, IRBs should ensure that individual potential participants will be informed of the nature of the research endeavor and that their voluntary consent will be sought. IRBs should recognize that, in some instances, information will be meaningful only if it is communicated in ways that are consistent with local customs

(4) Overall, to ensure that the research does not exploit the population from which participants are recruited, IRBs should ensure that the research corresponds to a medical need in the region where it is undertaken. Furthermore, they should foster research with the potential for lasting benefits, especially when it is undertaken among populations that are severely deficient in healthcare resources. This can be achieved by facilitating the development of a healthcare infrastructure that will be of use during and beyond the conduct of the research. Additionally, physicians conducting studies must encourage research sponsors to continue to provide beneficial study interventions to all study participants at the conclusion of the study.

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