JOURNAL OF CLINICAL RESEARCH BEST PRACTICES

Vol. 10, No. 2, February 2014 "Happy Trials to You"

Re-Consent Upon Reaching the Age of Majority: Ethical Issues

By David B. Resnik

Pediatric clinical and observational studies collect, store, analyze and often share biological samples and data obtained from children (Brothers 2011). These studies have the potential to improve children's health and advance biomedical science. For example, the National Children's Study (2013) will follow 100,000 U.S. children from birth until age 21 to examine the effects of environmental influences on health and development.

During the initial consent process, adult participants may be asked to give their permission for post-study use of their samples and data. If so, the consent form should provide information about how samples and data will be stored, used for other purposes, and shared with other investigators. The consent form should also explain how participants can later withdraw their permission to use their samples and data after the study and, if so, describe how the samples and data will be destroyed, sequestered or fully de-identified with the code destroyed.

Since pediatric participants are not old enough to provide legally effective informed consent, investigators obtain consent from parents or guardians, as well as the child's assent, provided he or she is mature enough to meaningfully assent to research participation (Samuël et al 2012).

Researchers may store, analyze or share samples and data for many years, long after participants reach adulthood, raising the ethical question as to whether participants should have the opportunity — unlike in adult studies — to re-consent once they reach the age of majority (18 years old in most U.S. jurisdictions). The duty to respect autonomy supports re-consent, since individuals who become capable of making their own decisions should be allowed to decide for themselves whether to participate in research.

Of course, any participant in a study has the right to withdraw consent at any time. The question here is whether researchers should actively attempt to obtain consent from child participants when they reach the age of majority. In particular, participants may want to have their samples or data removed from the study (i.e., destroyed) so they can no longer be analyzed or shared (Burke and Diekema 2006).

The ability to withdraw samples or data can be important for individuals who want to protect against potential threats to their confidentiality that might occur from sharing their samples or data, or for any other reason or no reason at all (Gurwitz et al 2009). However, most participants are likely to give their consent upon reaching the age of majority, provided the presumptive social benefits of the research still exist (Brothers 2011).

To understand some of the complexities surrounding these issues, it is useful to distinguish between some common scenarios in which re-consent may be an option.

In the first scenario, investigators are still collecting data and samples from participants or are engaged in follow-up activities. Depending on the nature of the research, they may or may not have begun to analyze data or samples or share them with other researchers. Re-consent for continuing participation in this scenario is ethically obligatory and should not raise any significant practical issues, since investigators should have current contact information from most or all participants. Participants who withdraw from the study should also be allowed to prohibit their samples and data from any post-study use.

In the second scenario, investigators are no longer collecting data or samples or engaging in follow-up activities, but they are storing and analyzing data or samples and/or sharing them with other researchers. Although re-consent in this scenario is ethically desirable, it can pose practical challenges (Gurwitz et al 2009). To give participants the opportunity to re-consent when they reach the age of majority, investigators should retain their contact information and birth date and link it to their data or samples through a code that they retain in a secure manner. Investigators might have trouble contacting participants who reach the age of majority if their contact information has changed and they have not notified the research team. Locating these individuals might be costly and time consuming. If investigators are unable to contact participants, despite making reasonable efforts to do so, it is appropriate for them to continue to store, analyze and share their samples or data without re-consent. Since the principal risk associated with the use of data or samples in research is the breach of confidentiality, the continued use of de-identified samples or data without the adult participant's consent should not be a significant ethical concern, since de-identification virtually eliminates this risk (Wendler 2006). However, if participants contact the investigators and ask to withdraw from the study and restrict further storage, analysis and sharing of their data or samples, the investigators should honor this request.

In the third scenario, investigators have completed the study. They are no longer analyzing data or samples, but they might do so in the future, and might continue to store and share de-identified data or samples and retain information necessary to break the code and identify participants. If the original consent form does not provide for re-consent at age of majority, re-consent poses legal problems in this situation, because the study is closed. In this case, investigators must obtain permission from the institutional review board (IRB) to re-contact participants, since interacting with human subjects requires IRB oversight under the Common Rule (45 CFR 46.102f) and Food and Drug Administration regulations (21 CFR 50.3g). Without such permission, investigators may not actively seek to re-consent participants who reach the age of majority after the study is closed. However, if a research subject who reaches the age of majority learns that investigators are retaining his or her data or samples and wants to remove them, then investigators could ask the IRB to allow this interaction to take place.

In the fourth scenario, investigators have closed the study and continue to store de-identified data or samples, but they have destroyed the code. Thus, the samples or data are fully anonymous. Since research with anonymous samples or data is not considered human subjects research, investigators may share the data and samples or use them in a different research project without IRB approval (Office of Human Research Protections 2008). Because it is no longer practically possible to re-identify the participant's samples or data and remove them from the study, re-consent would serve no purpose. If a research participant learns that investigators are retaining his or her data or samples and wants to have them removed, investigators can only tell the participant that this is no longer possible, because the data or samples cannot be identified.

One of the significant ethical concerns with re-consent occurs when investigators share data or samples before participants reach the age of majority. Although participants who withdraw can still ask to have their data or samples removed from the study, their request will not affect sharing that has already taken place (Gurwitz et al 2009). Since the principal risk of sharing data or samples is breach of confidentiality, one way of addressing this concern is for investigators to only share de-identified samples or data until the participant reaches the age of majority and re-consents (Brothers and Clayton 2009, Brothers 2011). Since it is theoretically possible to identify an individual from a DNA sample or DNA sequences (Lowrance and Collins 2007), some have suggested that investigators should take extra precautions and not share DNA samples or sequence data with other researchers until participants re-consent as adults, even if that takes a decade or more (Gurwitz et al

2009). A more practical, albeit imperfect solution, is to require recipients to sign an agreement in which they promise not to identify individuals or share DNA samples or sequence data with others.

Since re-consent can be an important issue in pediatric research, investigators should address it during the initial enrollment process, if they expect that participants may remain in a study after reaching the age of majority or that their de-identified data or samples may be stored and shared after the study closes. They should inform parents about procedures for re-consent and stress the importance of providing the research team with updated contact information for the participant. They also should explain to the parents that participants have a right to withdraw from research upon reaching the age of majority, including a right to limit the use of data or samples, or even have them removed from the study. They should discuss procedures for sharing data and samples (such as removal of personal identifiers). Investigators should also make child participants aware of these issues, provided they are able to provide meaningful assent. These efforts will help protect the rights and welfare of child participants after they become adults.

Acknowledgments

This article is the work product of an employee or group of employees of the National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH). However, the statements, opinions or conclusions contained herein do not necessarily represent the statements, opinions or conclusions of NIEHS, NIH or the United States government.

References

Brothers KB. 2011. Biobanking in pediatrics: the human nonsubjects approach. Per Med 8(1):79.

Brothers KB, Clayton EW. 2009. Biobanks: too long to wait for consent. Science 326(5954):798.

Burke W, Diekema DS. 2006. Ethical issues arising from the participation of children in genetic research. J Pediatr 149(1 Suppl):S34-38.

Gurwitz D, Fortier I, Lunshof JE, Knoppers BM. 2009. Research ethics. Children and population biobanks. Science 325(5942):818-819.

Lowrance WW, Collins FS. 2007. Ethics. Identifiability in genomic research. Science 317(5838):600-602.

National Children's Study. 2013. About the study. Available at: http://www.nationalchildrensstudy.gov/about/Pages/default.aspx. Accessed: December 3, 2013.

Office of Human Research Protections. 2008. Guidance on research involving coded private information or biological specimens. Available at: http://www.hhs.gov/ohrp/policy/cdebiol.html. Accessed: January 17, 2014.

Samuël J, Knoppers BM, Avard D. 2012. Paediatric biobanks: what makes them so unique? J Paediatr Child Health 48(2):E1-E3.

Wendler D. 2002. What research with stored samples teaches us about research with human subjects. Bioethics 16(1):33-54.

Author

David B. Resnik, JD, PhD, is a Bioethicist and IRB Chair at the National Institute of Environmental Health Science, National Institutes of Health. Contact him at 1.919.541.5658 or resnikd@niehs.nih.gov.