SPECIAL ARTICLE

Protection of the Child as Non-Therapeutic Research Subject

by

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Introduction

As a developing country, the more research will be performed, scientific as well as industrial, the more will be emphasized on the rights of the individual, particularly of the research subject. This paper is a literature review on medical ethics pertaining to the protection of the rights of children as research subject in advanced communities. Much can be expected from it for the benefit of moral and ethical development in our eastern paternalistic dominated research performance. It will show the historical development of medical ethical analysis and its role in the decision making process at all levels of biomedical research involving children as incompetent patients because of age, or as healthy people under the competent or consent age. The psycho-social evaluation of the child and the conflicting views of biomedical research of the child has been discussed widely in the literature. The last two decades experienced an abundance in studies on child education, establishing ethics pertaining the child's rights and other philosophies. Nevertheless, there still seems to be no apparent consensus pertaining what good life is to the child and yet no uniformity as to the evaluation concerning development of a good life for the child. Besides, biomedical research encounters conflicting public opinions, as Curran (1977) observed three basic conflicting views, i.e. 1st, the protection of the research subject, 2nd, the societal needs for research outcomes, and 3rd, the promotion and encouragement of medical researchers.

In advanced communities the individual's right are receiving great legal attention, and so do research subjects. But society is also eager of having research outcomes promising a better quality of life. And as Barber (1976) observed, all ethical issues emerge as problems created by the impact of professionals and professional

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power on the general public and on public policy. When the protection of the child in research is questioned, issues are raised pertaining consent, therapeutic versus non-therapeutic research, individual risk versus societal benefit, and the use and non-use of children as research subjects.

This literature review the legal and ethical issues are discussed besides the development of public policy pertaining to children involved in research as identified in American literature. As we will observe, it delivers only one problem, i.e. the need for the capacity of children to permit their consent. And as the research on this capacity is of a non-therapeutic nature, particularly healthy children are involved. Aspects of legal knowledge and ethical analysis are discussed as to indicate difficulties in the research decision-making process.

The Legal Role to Protect the Child's Rights

Since the United States has a highly developed legal system concerning the individual's rights and particularly the rights, of research subjects, besides an abundance of literature, our attention were concentrated on the legal development of the subject. Curran and Beecher (1969) has reexamined the legal ethical principles concerning experimentation in children with the conclusion that non-legal experts has interpreted the law as prohibiting research involving children without direct benefit for them. Nevertheless in many courts they observed the use of children in non-therapeutic research, in some of which parents were allowed to give consent to procedures where there was observable risk with or without direct benefit to the child. They also concluded that researchers be careful with misinterpretations of law and regulations by non-legal experts for other reasons and interests.

Issues of risk and benefit can certainly be confusing if interpreted non-legally, so that Curran and Beecher questioned the age of consent and competence of child or minor. Technically and arbitrarily common law sets the age limit at 21 for the minor generally, as in our country. This arbitrary age limit is meant as a protection against harm resulting from their ignorance. And against situations too where he is not expected to resist to coercion to give his consent. In many courts a child who gives his assent to certain measures or treatments has been favoured if proven that he appreciated the nature, the method and the consequences of the therapeutic measures. In those cases no precise age limit was kept fast, depending on individual situations.

Most biological and social scientists agree that children grow up to adulthood intelectually and emotionally at different points after adolescence. However, social scientists argue that the arbitrary age limit of the majority should not be the only determining factor to require consent. For medical treatment the age of consent has already been lowered in several countries to under the age of 21, although for certain involvement of the child in research, parental consent is necessary. This, however, is a traditional point of view, which indicates that law and regulations devise national guidelines, but reliance thereupon is virtually impossible and has to be decided case by case for researchers, parents and physicians pertaining to consent. In advanced communities a social consensus in missing concerning the consent issue, particularly regarding children's involvement in research. Physicians and researchers should not expect legal regulations providing clearcut guidelines; all has to be reviewed according to situations and case by case.

Ethical Theory and the Protection of the Child

When in 1974 in the United States the National Research Act was enacted, immediately a commission was formed, called the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The Commission was to construct guidelines for research on several minority populations including children. Since that time until the enactment of the federal regulations Research Involving Children in 1978, the literature was enriched with contradicting views and opinions concerning involvement of children in research. Levine (1978), McCartney (1978) and Ramsey (1976) argue that morally all research with children as subject must be prohibited, while Jonsen (1978), McCormick (1976) and Pinkus and Haines (1981) argue the contrary. On all these comments and views the above federal regulation was finally enacted in 1978.

As reason why such biomedical research involving children must be prohibited, Ramsey argues that there is no way to know what a child would or should do from the child's view. It could be that children cannot make such determinations, but therefore, since it is not possible for another to make a true presumption of a child's wishes without direct benefit to him, such research must be prohibited. Further, Ramsey argues, the prohibition should involve such harmless looking measures as weighing and other inconvenient offensive touching. Ramsey acknowledges too that such research is necessary, but then it must be categorized as injust work. Pinkus and Haines commented on Ramsey that logically by proxy consent would not be ethical, and research involving children would therefore require their assent.

These views of Ramsey were in line with opinions of McCartney and Levine, but contrary to it, McCormick holds the view that all human beings regardless of age, are naturally obliged to participate in minimal risk activities for the benefit and wealth of mankind. Human rights has not to be defined before the individual is viewed as a social being, before wrapped in the web of human relationship that define human being. Therefore McCormick presumes a child's consent for participation in clinical research possible, although including minimal risks such as weighing, measuring, collecting urine etc. With increasing risk this presumption may be limited. The consent by proxy used before the 1978 federal regulation is justified by these ethical arguments offered by McCormick.

The proxy consent is conflicting viewpoint between Ramsey, Levine and others, who oppose it, and McCormick, Pinkus and Haines and others who advocates for it, and is seemingly irresolvable. The difference lies in fundamental assumption on the nature and existence of man. This is proof that pure ethical considerations have no ability to solve the issue. With same assumptions it can identify justified measures and thereby rule out alternative actions. Concerned with violating principles that would harmonize human goals and desires, ethics is not competent to require differentiation in age at which children should consent or parents consent by proxy to clinical research. Clouser (1975) provided an analysis on how ethics can give outlines on when and if parents consent by proxy, while other disciplines and brainstorming must be benefited to require other moral details.

A consent by proxy as regulated in the U.S. in 1978 is according to Pinkus and Haines a compromise between Ramsey and other opponents and McCormick and advocates of consent by proxy. As no philosophical principles could completely resolve the dilemma of including children in non-therapeutic research, the 1989 federal regulations preferred to substitute a new terminology as assent for consent in children. Many commentators are not satisfied yet with those regulations, so discussions remain open to other considerations and development of other conceptual analysis. In the Declaration of Helsinki the proxy consent given by children to their parents is accepted for all kinds of research. This raised the question whether parents have to consent by proxy. In therapeutical research this is not fundamental, however when risk is involved and higher than the minimal risk, and if benefit is not directly perceived by the child, the by proxy consent concept has been critisized much (Pinkus and Haines, 1981; Clouser, 1975).

In many cases of teenagers seeking for therapeutic help against veneric diseases, or seeking help for unwanted pregnancy, proxy consent by parents would be interrupting their privacy. That is why proxy consent is arbitrary hold till the age of 7, beginning of the age of assent. This American regulation has been widely critisized and differs in many other advanced societies who accept the Declaration of Helsinki, or developed it for children as subject in research, both therapeutic and non-therapeutic.

As stiffness of American regulations pertaining to consent in research involving children and issues has always to be handled properly, a board was established which also regulates assent by children a bove the 7 year limit, the so called Institutional Review Board or IRB. Other final decisions were elicited concerning whether or not participation of children in research is allowed. It involves also children in non-therapeutic research. Particularly Gray et al. (1979) have reviewed the effectiveness and the ability of the board regarding attitude and behaviour of researchers in several institutes pertaining to human subjects including children. IRB's however, raises much controversy, especially in ethical aspects in research involving human subjects. Since mediating in many conflicting values regarding to regulations of professional power, IRB's are accepted as important social and legal inventions.

Another important issue the IRB's slate to improve is the process of informed consent, particularly regarding to the relationship between the research subject and the researcher. The decission making process to require assent from a 7 year old child needs certain communication abilities. With special methods IRB's can decide when and if consent is required. An important ethical context to evaluated when a child has the ability to give assent, besides deciding on other issues, are the three strategies to keep freedom of scientific investigation in balance with minimizing risk as Bok (1978) argues in her essay "Freedom and Risk". Primarily she suggest, to identify forms of research that pose seemingly no risk while removing all bureaucratic obstructs to free the pursuit of research. Secondly, the strategy to identify research that recklessly endanger people and advocates to prohibit such research. Establishing justified standards in these two fields of research will lessen the bureaucratic burden to control institutions and investigators, besides keeping the scientist away from involving in unacceptable investigations. When those standards are cleared, the third strategy will be minimized, i.e. research with potential benefit

and some risk, which may turn up people to disagree the investigation's course. This third category is disputable and generates much moral and ethical controversies. Therefore, the best effort is to minimize the impact of research in this category and emphasized on understanding issues and actions to clear the process of decision making. Moral and ethical disputes can be neutralized accordingly and IRB's can accept decisions on when and if assent from the child is required.

Besides those moralistic and ethical thoughts, the law in many reaching countries has accepted the arbitrary age of 21 as the level of adulthood for the majority of children. Nevertheless Curran and Beecher (1969) cited cases in courts, who lowered the age of consent, particularly in the United States this has been lowered for therapeutic and medical purposes only. Observing this, they concluded that an upper age limit of knowledgeable children must be accepted as being able to require assent, with stipulations, that research has to be of a high quality, minimal risks and has the greatest chance of success (Pinkus and Haines, 1981). On the contrary a lesser age limit must be established to identify when children should not be required to give assent, because of inability to abstract and appreciate issues involved. Both the upper and the lower age limit are impossible to be established by moral and ethical analysis, but can be differentiated by empiric research as Frost (1975) advocated when the National Research Act was enacted.

Empirical Establishment of Children's Age of Consent

Since long it has been observed that the possibility exists to investigate the child's response at different ages, against experimental hypothetic situations to collect some information to their perception and desire for participation in research. Frost used a methodology based on similar principles to investigate the consent process in adults through a so called surrogate system. He concluded that respondents seemed more candid than when in real clinical situations. He suggests therefore researchers to use this methodology to evaluate their consumer's attitude more securely regarding certain problems. It is applicable too to empirical research measuring or evaluating secured respondents as sample consumers.

To examine the feasibility of such a consent decision making process for research, Pinkus and Haines (1981) has performed an investigation to seek for responses of healthy children of 6 to 11 years old. They hypothesized that the responses would relate to perception of the child to medical-clinical research. They hypothesized too that the child's response was directly related to what the child perceived as benefited for him, and secondly, that small rewards, beneficial to them, can easily induce their participation while actually reluctant before.

A questionnaire was given to the children indicating 4 hypothetical settings. Every question was indicative of a little non-well feeling, though the first mentioned a possible benefit for him, the second indicated a worsening of the disease, the third showed a possible benefit for others, while the last one particularly mentioned the word "experiment" to observe their reaction to it. In all situations every child reluctant to participate in the project study was tested as to the strength of convictions: they were observed resistant to the offense of various inducements.

This questionnaire was presented to children in a private public school that stressed on free decision making by its pupils in their everyday life. The school administration was also receptive to participation of their pupils in the study. The respondents therefore constituted a highly selected group, economically and intellectually and were expected to be highly receptive to the investigation. A group of children in a neighbourhood school consisting of less affluent families was also attempted to take part in the project, but unfortunately the school administration was reluctant to participate, and effected the project's outcome from the impossibility to generalize it for the whole area. In general the children seemed to perceive the main goal of each question and gave the expected response. When it was emphasized on self-benefit, they overwhelmingly participated, indicating self-advantage as the reason. Questions emphasizing possible benefit for others, the children in general showed willingness to participate mentioning altruism as their motivation. While some observable risk was indicative of the questions, in general the children refused to participate. The last question generally raised a confusion among them about the word "experiment". Their respons was also less consistent. What apparently disappointed the investigators was the unclear age trend among the respondents.

Although difficulties emerged in the sampling of respondents, there still exists a bias of interviewers and the emotional impact of the hypothetical situation, causing a difficult valid conclusion, but it was also indicative that the children's own inability to identify ethical issues was also the cause. Another conclusion was the possibility for the interviewer or the investigator who dominate the situation and manipulate the issue through words and phrases and herewith to manipulate the childs response too. Important from this study is the observation that the physician or the researcher can dominate the situation and thereby requires the child's consent or assent. But what remains difficult to explain is the ability of the child to judge the risk-benefit relation and how he comes to reasoning and decision. In adults too it may raise difficulties also, but important of this investigation is that the degree of willingness to participate in research, is indicative of an obligation for legal decision makers to include in regulations the degree of risk and benefit perceptive for the child in the process to require his assent.

Particularly the above mentioned investigators concluded that contemporary moral and ethical sophistication alone, is unable to slate conflicts in moral and ethical issues. But research can be designed specifically to collect data to assist answering questions in our efforts to construct regulations for ethical conduct. And to direct researchers and physicians who involve children as research subject, we need facts from firm studies and procedures. Requiring consent and assent from children is not only a moralistic and ethical problem, but is a far more transcendent dilemma.

REFERENCES

1. BARBER, B.: The ethics or experimentation with human subjects. Scientific American 234 : 31 (1976).
2. BOK, S.: Freedom and Risk. Daedalus. 107 : 115 (1978).
3. CLOUSER, K.D.: Medical ethics: Some uses, abuses and limitations. New Engl. J. of Med. 293 : 384 (1975).
4. CURRAN, W.J.; BEECHER, H.K.: Experimentation in children: A reexamination of legal ethical principles. J. Am. med. Ass. 210 : 77 (1969).
5. CURRAN, W.J.: Current legal issues in clinical investigation with particular attention to the balance between the rights of an individual and the needs of society; in Reiser, Stanley J., Dyck, Arthur J. and Curran, William J.: Ethics in Medicine: Historical Perspectives and Contemporary concerns. (The MIT Press, Cambridge 1977).
6. FROST, N.: A surrogate system for informed consent. J. Am. med. Ass. 233 : 800 (1975).
7. GRAY, B.H.; COOK, R.A.; TANNENBAUM, A.S.: Research involving human subjects: The performance of institutional review boards. Science 201 : 1094 (1979).
8. JONSEN, A.R.: Research involving children: Recommendations of the national commission for the protection of human subjects of biomedical and behavioral research. Pediatrics 62 : 131 (1978).
9. LEVINE, R.J.: Research involving children: The national commisson's report. Clinical research 26 : 61 (1978).
10. McCARTNEY, J.J.: Research on children: National commission says "Yes, If...". Hastings center report 8 : 26 (1978).
11. McCORMICK, R.A.: Experimentation in children: Sharing in sociality. Hastings center report 6 : 41 (1976).
12. PINKUS, R.L.; HAINES, S.J.: The rights of children involved in research; in Hiller, Marc D., medical ethics and the law: Implications for public policy. (Ballinger Publishing, Cambridge 1981).
13. RAMSEY, P.: The enforsement of morals: Nontherapeutic research on children. Hastings center report 6 : 21 (1976).