sionals in this regard in Japan. No investigation has been done to demonstrate how the lay public perceives medical research and what kind of attitudes they have towards RCT with placebo arms. Therefore, the purpose of this study is to explore laypersons' attitudes toward and experiences of medical research, and to compare them with those of physicians in Japan. We also explored if there were any characteristics unique to Japanese culture, both in laypersons' and in physicians' attitudes and ideas. Given limited data available to guide researchers, we used focus group interviews in this exploratory study. This study used focus group interviews to explore the attitudes towards and experiences of medical research among laypersons in the community and physicians who have been engaged in various types of medical research. Various researchers address the significance and characteristics of qualitative studies employing focus group interviews. The advantages of focus group interviews include the generation of insight about attitudes and beliefs, the interaction among participants promoting rich discussion on controversial topics, and the encouragement to present contrary points of view. The information obtained through focus group interviews can generate hypotheses about a target population.[17] Thus, we believe that the focus group interview is the most suitable method to pursue our research purpose.

METHODS AND SUBJECTS

In the following section, we will describe the methods employed and subjects involved in the study. Most of our descriptions about the research methodology and the subjects (in italics) have already been reported in another paper based on the same focus group interview, 'Attitudes of the Japanese Public and Doctors towards use of Archived Information and Samples without Informed Consent: Preliminary Findings based on Focus Group Interviews', published in the *BMC Medical Ethics* in 2002.[18]

We conducted three focus group interviews in November 2000, in Osaka. The first group comprised seven men from the general public, the

[17] Ellis & Buttow, *op. cit.* note 15. Corbie-Smith et al., *op. cit.* note 16. P. Schattner, A. Shmerling & B. Murphy. Focus Groups: A Useful Research Method in General Practice. *Med J Aust* 1993; 158: 622–625. J. Kitzinger. Introducing Focus Groups. *BMJ* 1995; 311: 299–302.

[18] A. Asai, M. Ohnishi, E. Nishigaki, M. Sekimoto, S. Fukuhara & T. Fukui. Attitudes of the Japanese Public and Doctors towards use of Archived Information and Samples without Informed Consent: Preliminary Findings based on Focus Group Interviews. *BMC Med Ethics* 2002; 3: 1 (Available at: http://www.biomedcentral.com/1472-6939/).

second was composed of seven women from the general public, and the third was composed of seven male physicians. Each interview took approximately two hours. Inclusion criteria for the lay participants were as follows: they had to be aged between 35 and 55, married with children, and the interviewee or his/her relatives had to have had experience of inpatient care during the preceding five years. The lay participants could not have close family members who were healthcare professionals. We thought that lay participants with such backgrounds were more likely to be involved in medical care for themselves and their family members in 'the present progressive form' than those who were otherwise, at least in Japan. Those who participated in the physician focus group had to be between 35 and 55, and be involved in both clinical practice and research activities.

Recruitment of lay participants was conducted by investigators from the Japan Research Center working in the Osaka area, which is a private institution for market research specialising in conducting group interviews and recruiting interviewees. The seven men and seven women from the general public were recruited by the Japan Research Center independently of the authors. The recruiting agents working in the Osaka area from the Japan Research Center visit 10–20 lay citizens on average for their own marketing research on an everyday basis. For the purposes of our current study, the recruiting agents asked the citizens whom they visited for their market research to participate in our focus group interviews and continued their recruitment until seven women and seven men agreed to join our investigation. Therefore, our sampling of the lay participants was conducted on a basis of convenience. The participating physicians were recruited by the authors for the sake of convenience. Four of the authors (AA, MO, MS, SF) asked fellow physicians working in different institutions to recommend candidates to be subjects in this study and one author (AA) sent a formal letter of invitation to potential participants. All participants were asked to take part in a discussion about their attitudes, beliefs, and experiences with regard to medical research and medicine in general. All of them consented to join this study. An honorarium was paid to all participants.

Two trained professional facilitators from the Japan Research Center, who have appropriate training and experience, conducted the three sessions. All focus group interviews were audio-taped and shorthand was also taken with the consent of the participants. Participants completed a brief demographic questionnaire before the focus group interview began. The questions that were asked in the interviews are shown in Table 1. In general, focus group interviews are continued until no new information is obtained. However, no follow up sessions took place, owing to limited human and financial resources. Therefore, the results presented here

Table 1. Examples of Questions from the Focus Group Facilitator's Guide of Focus Group Interviews

Lay Participants
What kind of medical care have you and your family had?
How do you rate the quality of current healthcare in Japan?
Have any of you ever been asked to participate in medical research?
Have any of you ever participated in medical research?
If anyone participated in medical research, tell us about your experiences and impression in this regard.
For what reason would you participate (have you participated) in medical research?
For what reason would you refuse (have you refused) to participating in medical research?
What do you think of randomised clinical trials with placebo arms?
How should informed consent from research subjects be obtained?
How important is the need to advance medicine?
How important is the need of medical research?
Physicians
What kind of medical research have you been involved in?
What kind of experience have you had with regard to medical research and how would you rate the quality of current situation of medical research in Japan?
How good do you think patient participation is in medical research?
What do you think of randomised clinical trials with placebo arms?
How should informed consent from research subjects be obtained?
How important is the need to advance medicine?
How important is the need for medical research?
What should be done to improve the quality of medical research in Japan?

should be regarded as preliminary. Audio-tapes of the all interviews were transcribed. The transcripts were analysed by three of the authors (AA, MO, EN). The authors read the transcripts several times, analysed them line by line, and replaced individual statements with general concepts or themes such as informed consent, privacy, and wrongs, so that all the issues relevant to the attitudes and beliefs of the participants were identified. We did not necessarily aim to formulate comprehensive categories or develop theoretical frameworks because our primary objective in this study was to elicit information. Research team meetings and electronic communication was employed in order to discuss the accuracy of the lists of concepts and ethical issues identified. Research team discussions were also utilised to select interviewees' statements that were regarded as typical or representative. We repeated these processes until we reached consensus regarding the final presentation of the results.

All sessions of focus group interviews in this study also included discussions about research based on archived information and samples,

Table 2. Demographic Characteristics of Participants in Focus Group Interviews

	Female participants	Male participants	Physicians
Number	7	7	7
Age	35–54	35–55	37–44
Occupation			
Full time	0	7	NA*
Part time	4	0	
None	3	0	
Specialty	NA	NA	
Emergency/ICU			1
Internal Medicine			5
Anaesthesiology			1
Duration of practice (years)	NA	NA	12–17
Experiences of inpatient care			NA
Interviewee his or herself	5	3	
Interviewee's relatives	6	7	

* NA: not applicable.

the retrospective use of existing medical records, and the use of biological samples that have previously been taken during medical diagnosis and treatments. These results have already been reported separately.[19]

RESULTS

Table 2 shows the demographic characteristics of participants in the focus group interviews. What follows is a summary of the results of these three group interviews. Some typical statements of the participants are quoted with the authors' summary.

Experiences of and attitudes towards medical research in general

Lay Participants

One man and two women had participated in medical research; two of them joined clinical trials and took experimental drugs. Trust in the physician by whom the participants were invited to participate in the research seemed to play a considerable role in their decisions about participation.

'I decided to take part in the study because the detailed explanation about the research that my physician gave me was, I think, satisfactory. It included various possible side effects of the experimental drug such as

[19] Ibid.

liver damage and stomach ulcer. Also no other effective drug existed for my condition.' (42-year-old male)

'My trust in my physician made me decide to join the study. I co-operated with the physician because he was also involved in the care of my mother and I knew that he was a reliable person.' (50-year-old female)

On the other hand, a participant who was involved in medical research and had had her blood taken without prior sufficient explanation about the research felt that she had to join the research because she was a patient.

'A physician who had nothing to do with my care took my blood. I was just told that it was done for the investigation of the human immune system and that was the only information I got. Those who were conducting the research told me neither how the sample nor the result of the study would be used.' (43-year-old female)

Mistrust of both physicians and healthcare as a whole was reported consistently by the participants. Regardless of the participants' age or sex, they reported their unpleasant or painful experiences. Inadvertent remarks by medical professionals often hurt lay participants' feelings, and mistakes caused by healthcare workers fell short of their expectations. Such distrust of medical care in general seems to extend to medical research. Concerns that one participant expressed were shared by all interviewees.

'I think that medical researchers use blood drawn from us and review patient's personal medical records without asking permission. Everything is like that lately, isn't it? They do whatever they want and we do not know it, I am afraid.' (48-year-old female)

Physicians

All participants felt that procedures involved in medical research involving human subjects have changed significantly and that ethical standards of medical research have become stricter since human genetic studies began. Medical research including clinical trials and genetic analysis require medical researchers to obtain written consent nowadays. Most agreed that they did not take the importance of informed consent in research seriously in the past.

One aspect of participants' experience regarding conducting medical research centred on its hardship; a lack of assistance, lack of time, and lack of funds have made their work tougher, leaving the quality of medical research, especially clinical trails, unacceptable. Many felt that the situation surrounding the conduct of medical research is very poor compared to that of the US. They reported that some clinical investigations suffered a setback because of such an unsatisfactory environment. Furthermore, it

was pointed out that the proportion of eligible patients accepting an invitation to participate in medical research including a clinical trial is quite low.

'As a matter of fact, clinical trials for cancer research in Japan have been fatal.' (39-year-old male)

'For example, clinical trials with regard to treatments of hypertension were brought to a halt. I also know the research project, which was frustrated and ended up incomplete because too few patients agreed to participate.' (39-year-old male)

Reasons for participation and non-participation in medical research and informed consent

Lay Participants

Among various reasons expressed for agreeing to participate in medical research, the main one was to receive personal benefits. In response to the question 'What are the reasons you might participate in medical research?', all participants, across the broad, described their desire to access the best available medical care and use better drugs as the first priority. Some would agree to participate in the research in the hope of clarifying their illness and knowing the current medical situation. As for the method of obtaining informed consent, no one insisted that a written consent form be used. What they were most concerned about was to understand the risks involved in the research procedure.

'I would like to take an experimental drug if it is promising and, at the same time, no other alternatives exists.' (43-year-old male)

On the other hand, the main reason expressed for refusal to participate in medical research was the possibility of the unknown side effects of new drugs. One participant considered medical research involving human subjects cruel.

'No one really knows what an experimental drug brings about.' (44-year-old female)

The physician-patient relationship had a strong influence on the patient's decision to participate in the research. Many participants responded that they would agree to join a study if a physician whom they trusted asked them to do so, and some answered that they would do so in order to co-operate with their physicians. On the other hand, some felt that the relationship between the two was socially unequal, with patients belonging to the lower rank. They thought that they had to comply with their physician's request.

'I would agree to participate if my regular doctor asked me, but I would not co-operate with the project if traders are involved or a physician who is unfamiliar to me asked me join the study.' (48-year-old female)

'I am afraid that I would be unable to turn down the request from my physician.' (54-year-old female)

Communicating outcomes of a research project in which one participated and any financial incentives seemed to affect participants' response to recruitment for medical research. The possibility of reducing financial burdens on one's family seemed especially likely to motivate participants to join the research.

'If the sponsor of an investigation took over all of my healthcare costs during the research period and financial burdens on my family decreased, I would agree to participate in the study, sacrificing myself.' (35-year-old male)

Physicians

All participants stressed the importance of obtaining informed consent from research subjects. However, some felt that the research participant's ability to understand medical and scientific information relevant to medical research was not sufficient. One participant considered that the concept of informed consent has yet to become familiar with the Japanese in a clinical setting. He thought that many patients are still dependent on their physicians about final decision-making and that they are also unaware that they have to take joint responsibility for any consequences with their physicians when they voluntarily provide informed consent. Although all recognised the importance of communicating the outcomes of studies to the research subjects, they were concerned about the difficulties of giving precise and practical interpretations of results obtained from the research. It was also pointed out that there were problems with truth telling when communicating results regarding genetic diseases.

'Should we communicate information about genes found in a study when even we do not know what and how these genes work? Does it really make sense?' (40-year-old male)

All the members of physician interviewees took a critical stance on the attitudes of the mass media towards medical research. Many reports made by the mass media were biased and aroused groundless distrust in the general public towards healthcare and physicians as well as medical research as a whole, and such distrust would have a negative influence upon patients' and people's willingness to consent to participate in medical research. They

shared the serious concern that such biased and negative news would impede progress in medicine.

'Medical research is dangerous and offensive. It is an act of the Devil. Mass media makes medical research out to be like that. Patients have already taken a defensive posture when we come to ask them about participation in research.' (44-year-old male)

In terms of the participants' motives for joining medical research, responses from participants were similar: they think that the desire to contribute to the good of society should be the main factor motivating patients to co-operate with medical research.

'Even a well-designed study with the safest procedures cannot occur without causing some degree of discomfort and inconvenience to participants. I think that no one who is not altruistic can decide to join the study.' (43-year-old male)

Randomisation and placebos

Lay Participants

Only one female recognised what 'placebo' means. Concerns involving double blind randomisation and the use of placebos exploded, however, after group interview facilitators explained the meaning and implications of randomisation and use of placebos in medical research. Although participants were afraid of possible adverse effects of experimental drugs, a feeling of repulsion rather concentrated on the fact that research participants cannot know what they take in a study and that there is a 50% chance of taking inert agents, which decrease the possibility of benefiting from experimental but new drugs by 50%. Discussion with regard to double blind randomisation and the use of placebos resulted in emphasising lay participants' expectations of getting better by experimental drugs. Some felt that they would hedge bets on participation on research with placebo arms if it were the only way to access to an experimental drug.

'I would like to know exactly what I am taking in medical research. That is why I want to be told that it is a placebo when I take it. It would be very uncomfortable for me to remain untold.' (43-year-old male)

'The question does not make sense to me. No one would take placebos (in response to the question, "Would you agree to participate in double-blinded randomised clinical trials with placebo arms?").' (39-year-old male)

At the same time though, some participants suggested that information about double blind, randomisation, and use of placebos not be disclosed to a patient who serves as a research

subject. Some thought that such information should be communicated with the patient's family.

'It would be better for both a patient and researcher to tell the patient that both drugs are new experimental drugs even if one of them is a placebo.' (40-year-old male)

Physicians

Responses from participants were similar with regard to the legitimacy of double-blinded randomised control trials with placebo arms; all thought that such designs and procedures are ethically and scientifically justifiable as long as clinical equipoise exists. Although they understood patients' and their family's tendency to 'clutch even at straws' and were sympathetic towards such a feeling, they found it necessary to correct the common misunderstanding that a new drug is better.

'A clinical trial using a placebo would be ethically problematic if an experimental drug was known better than the placebo. Such trials have been conducted because there is no evidence that the experimental drug is better than nothing.' (37-yaer-old male)

'It is not appropriate for patients to blindly take up an experimental drug only because it is new. I feel that it is our mission to let patients and the general public know that new drugs are not necessarily better drugs.' (40-year-old male)

The majority of participants felt that many clinical trials have been brought to a halt due to lack of altruism in Japanese society. One participant stated the following:

'The one reason that many Japanese patients would not agree to participation in clinical trails with randomisation and placebos may be the patients' strong consciousness of being a victim in society.' (39-year-old)

The need for medical research

Lay Participants

The majority of participants had never deliberated on the need and the role of medical research in healthcare. Medical research had attracted the interest of only a few participants. Most felt that medical research is something strange, mysterious, and hard to understand. They responded that it is all they can do to take care of themselves and think of their lives when they become ill. Getting sick was quite a personal event and medical research was a matter of different dimensions.

'Medicine and medical research are entirely outside of my world.' (48-year-old female)

On the other hand, a small number of participants had considered the need for medical research in the past. Some responded that they owed present medicine to the contribution of many patients involved in medical research in the past, but such recognition did not directly motivate them to co-operate with any research projects offered. The significance of participation in medical research was not considered from an altruistic standpoint. Furthermore, one participant thought that it is more important to use resources to make healthcare in the world more equal than to pay money for medical research.

'I do not feel like co-operating with medical research from all sides at all times. I understand its importance, but it does not make me an unconditional supporter of medical research. I do not know how and when I would do so.' (52-year-old female)

Physicians

All participants were firmly convinced of the need for medical research and its significant role in medical progress. Across the board, they believed that more research was needed to provide reliable evidence about medical treatments to create better healthcare.

'Needless to say, I would like to make medicine progress. It is almost unconditional. This is because I have witnessed suffering and agony of patients with incurable diseases day after day.' (43-year-old male)

The majority of the participants pointed out the lack of social recognition regarding the need for medical research. From their experiences, very few patients and laypersons considered issues involved in medical research. All thought that medical professionals have to state the importance of medical research more often in public and solicit people's participation. They believed that it is necessary to make medical research more familiar to the lay public, to establish structures that make studies with higher quality possible, and to build environments where patient's well informed choices can be obtained and the results of medical research can be communicated adequately.

'I expect that more information and understanding about experimental drugs would make people's repulsion and anxiety less.' (39-year-old male)

One participant recommended a focus on better education during elementary and secondary school, so that the general public would have a more informed understanding of why research is important and about misconceptions concerning research involving human subjects.

'We cannot be passive any more. We have to go public and educate people about medical research and let them know what we are doing.' (43-year-old male)

DISCUSSION

The present preliminary focus group interviews, the first in Japan, provided several hypotheses in regard to the Japanese attitude towards and experiences of medical research: first, there is a good possibility that the lay public and medical professionals have sharply different beliefs about and attitudes towards every aspect of medical research including its necessity and importance. Laypersons may perceive medical research as something entirely outside their world. In contrast, physicians and medical researchers may strongly believe in the need for medical research and the significance of its role in medical progress. Secondly, an equal partnership based on trust between physician and patient is a key issue in a patient's decision to participate in medical research. Lay participants may feel an obligation to participate in medical research under the current physician-patient relationship in Japan, which can be regarded as unequal. Thirdly, research methods such as the use of placebos, double blind, and randomisation seem to cause serious anxiety and doubts about medical research. Fourthly, it is possible that despite negative attitudes toward participation in medical research in general, many participants expressed a greater willingness to volunteer for research if there were benefits to themselves or their families. Self-interest, including financial benefits rather than altruism, seems to be a main reason to join research. Finally, it is suggested that the physicians and medical researchers think that the lay public has a poor understanding of the need for medical research and that it is important to educate the general public in this regard.

The results of our study, though preliminary, provide several issues that healthcare professionals and medical researchers have to deliberate with humility. One of them is what medical research means to the lay public and patients who are potential research participants. It is suggested, from the medical professional's point of view, that medical research is undoubtedly indispensable and should be conducted aggressively. On the other hand, for the lay public and patients, medical research is something unconnected and has nothing to do with their private lives. What is important for the patient is to cure his or her illness, and as such a healthy public would be indifferent to medical progress unless they suffered from refractory diseases. Such indifference could be the

cause of patients' reluctance to join medical research in Japan recently. However, it can be claimed that it is quite natural that most people who are not professionally involved in medical care are not interested in research activities unless they themselves or their family are suffering from illnesses whose treatment has not been discovered or established. It is also quite legitimate for research participants to expect some degree of self-interest from the research.

We believe that medical investigators and physicians, including the authors, should take seriously the gap in the perception of medical research that exists between the general public and medical professionals. As mentioned earlier, medical professionals have ulterior professional and personal interests in successfully conducting medical research, such as acquiring a reputation and receiving promotion. Such ulterior interests may disturb the researcher's ability to judge the significance of the research and the risk-benefit ratio involved. That medical research is important and should be conducted aggressively is probably common sense that most medical professionals share. However, such a belief is not necessarily accepted in the wider world. The authors believe that medical research is important in order to advance medical science and healthcare, and that having better medical care is more desirable than otherwise, but we are also aware that the desirability of medical research does not give researchers any overriding right to conduct whatever they believe to be medically important at the cost of other valuable concepts that laypersons have such as privacy, freedom, dignity, and autonomous decisions. It would be arrogant for medical researchers to try to 'instruct the ignorant general public' regarding the significance of medical research. A more appropriate attitude would be to solicit the understanding of the general public and ask them for aid in conducting investigations through complete disclosure of relevant information and fully informed debates between the two parties.

The second issue to deserve attention is the significant role of the lay participant's trust or distrust in physicians and healthcare in terms of medical research, and the fact that the former may feel an obligation to participate in the research. Our present study suggested that trust in a physician by whom the participants were invited to participate in the research seemed to play a considerable role in their decisions about participation. At the same time, it is also suggested that it is sometimes difficult for patients to refuse requests from a physician, because the patients feel that the relationship between the two was socially unequal with

patients belonging to the lower rank, and they think that they have to comply with their physician's request.

It can be speculated that Japanese patients might be reluctant to say 'No' to their physician because they are afraid that the good relationship built up with the physician would be destroyed and they fear that their healthcare would be jeopardised. They believe they have to obey the physician because they wish to live up to their physician's expectations and also because the patients feel that the relationship between the two was socially unequal, with patients belonging to the lower rank. Japanese inclinations to highly praise harmony and avoid protesting against authority may also play a significant role in their reactions.[20] If this holds true for the Japanese at large, informed consent about participation in medical research in Japan might not be able to provide truly voluntary decisions from the patient. Even if there was no coercion on purpose, asking patients who have strong and long relations with their physicians about research participation could be manipulative regardless of the latter's intention.

Therefore, medical researchers should always be aware of the possibility of unintentional coercion and undue influence, and must avoid exploiting their patients who trust the former with caution. In a sense, Article 31 of the Declaration of Helsinki stating, 'the physician should fully inform the patient which aspects of the care are related to the research. The refusal of a patient to participate in a study must never interfere with the patient-physician relationship' is particularly important in Japanese culture.[21] At the same time, medical researchers and healthcare workers as a whole should consider how one can be trustworthy as a person as well as a medical professional. This is because a good physician-patient relationship forms the foundation of beneficial medical care and we think that this holds true in medical research. No patient would be willing to participate in proposed investigations unless they feel safe, and trust in medical researchers may therefore form the basis of a sense of security that potential participants need to have. Furthermore, cultivating trust by building more equal relationships with research participants, who are patients as well, would be essential so that the patient's felt obligation to obey the physicians' request be eradicated. Third, difficulties in understanding concepts in medical

[20] M.J. Tierney, P.A. Minarrik & L.M. Tierney. Ethics in Japanese Health Care: A Perspective for Clinical Nurse Specialists. *Cli Nur Specialist* 1994; 8: 235–240. M. Fetters. The Family in Medical Decision Making: Japanese Perspectives. *J Clin Ethics* 1998; 9: 132–146.

[21] World Medical Association, *op. cit.* note 2.

research and their implications were suggested. It might be fair to say that this is not limited to our participants.[22] Both groups perceived the random allocation of treatment and the uncertainty/experimental nature of clinical trials with placebo as major negative aspects. Perhaps the most difficult concept for patients and the lay public to comprehend may be clinical equipoise.[23] Most participants in our interviews tended to think that new drugs are better drugs and were unwilling to accept the possibility of taking a 'fake' drug. One study conducted in the UK has also shown that the inclusion of a placebo arm may reduce subjects/patients' willingness to participate; 39% of those patients receiving the 'no placebo' trials indicated their willingness to enter compared with 30% receiving information about the placebo trials.[24] It is also possible that the horror of the placebo can stem from a fear of lack of control. As in the terminal stage where an individual inevitably deteriorates, losing one's control over what happens to one's body might be one of the major reasons for our participants' reluctance to take a placebo.[25] Such a tendency of the lay public is in stark contrast with physician participant's assertion that placebos can be used ethically when clinical equipoise is met.

However, we would argue that the candid answers of our respondents such as, *'No one would take placebos'* and *'I would like to know exactly what I am taking in medical research'* must not be dismissed as irrational or the result of poor understanding. This is because, as our participants rightly thought, in randomised control trials with a placebo arm, there is a 50% chance of taking inert agents, and this fact decreases the possibility of benefiting from experimental but new drugs by 50%. Of course, no one knows whether or not the experimental drug is beneficial, but as far as chance is concerned, the chance of obtaining benefits from the drug undoubtedly decreases by 50%. As the physician participant said, it is not appropriate for patients to blindly take up an experimental drug simply because it is new, but it can be claimed that the medical professionals may not be in a good position to judge which is better, to take an inert but safe drug or to take the

[22] Ellis & Buttow, *op. cit.* note 15. K. Featherstone & J. Donovan. Random Allocation or Allocation at Random? Patients' Perspectives of Participation in a Randomized Controlled Trial. *BMJ* 1998; 317: 1177–1180.

[23] Featherstone & Donovan, ibid.

[24] A.J. Welton, M.R. Vickers, J.A. Cooper, T.W. Meade & T.M. Marteau. Is Recruitment More Difficult with a Placebo Arm in Randomized Controlled Trials? A Quasi-Randomized Interview Based Study. *BMJ* 1999; 318: 1114–1117.

[25] E. Ohnuki-Tierney. 1984. *Illness and Culture in Contemporary Japan – An Anthropological View.* Madison. Cambridge University Press: 66–67.

active one that could be either beneficial or harmful to participating patients. This is not a scientific but a value judgement. We think that medical researchers should be fully aware of this kind of heuristic perception among participants.

In addition, interestingly enough, some interviewees thought the fact that placebos are used in research should not be disclosed in order to avoid making potential research subjects uncomfortable and also to increase the number of participants. This opinion seems to contradict their own responses that they would want to know exactly what they take in a research protocol. It is possible that they use double standards in this regard. They insist on knowing what they take, but it is acceptable for hypothetical others to take a placebo, thinking that they are taking one of two experimental drugs. Probably they thought that 'ignorance is bliss' and bad news should not be communicated to persons who are affected directly by the news and they should be told to someone else. We believe that this kind of double standard is also the case in truth telling with regard to cancer disclosure in Japan. It has been suggested that some Japanese claim, 'I would like to know the truth when I have cancer but I would like my family not to know the truth when they have cancer.'[26]

Finally, participants in our study clearly indicated that self-interest is the reason for participation in medical research. It can be claimed that participation in research is, for some individuals at least, a chance to receive benefits. This tendency seems to be consistent with previous reports published outside Japan.[27] No participant explicitly refers to the importance of voluntary social contribution as a main reason for participation in medical research and this attitude differed from that of physician interviewees. This finding also contrasted with the patient's attitudes previously reported in other countries, which suggested that the majority of patients and those who were previous or current participants in clinical trials stated that their motivation for participation was to help others and make contributions to medical knowledge.[28] The present study did not reveal why our inter-

[26] A. Asai. Should Physicians tell Patients the Truth? *West J Med* 1995; 163: 36–39.

[27] C.K. Daugherty, M. Siegler, M.J. Ratain & G. Zimmer. Learning from Our Patients: One Participant's Impact on Clinical Trial Research and Informed Consent. *Annals Int Med* 1997; 125: 892–897. U. Schüklenk. 1998. AIDS: Individual and 'Public' Interests. In *A Companion to Bioethics*. H. Kuhse & P. Singer, eds. London. Oxford University Press: 343–356.

[28] Cassileth et al., *op. cit.* note 2. E.G. Bevan, L.C. Chee, S. McGhee & G.T. McInnes. Patients' Attitudes to Participation in Clinical trials. *Br J Clin Pharmac* 1993; 35: 204–207.

viewees did not consider helping others a primary reason for participation in research, but we might attribute their attitudes to the Japanese cultural trends. It has been said that the strong devotion of the Japanese to the group to which they belong appears very largely to pre-empt the possibility of anything like equal concern for those outside the group and for the larger whole. It is noted by outside observers that there is nothing in Japanese ethics corresponding to the key Christian injunction, 'thou shalt love thy neighbour as thyself.'[29]

As in all studies, there are limitations in our study. First, although the focus group interview is an important tool to explore participants' experiences, attitudes and beliefs, qualitative research methodology is used primarily to generate, rather than test, hypotheses.[30] Hypotheses cannot be tested and findings cannot be generalised to the population.[31] Second, lay participants were recruited only from the Osaka area and regional differences could influence their responses. The findings represent a range of opinions from a small and selected sample of the general public in Japan. The attitudes and beliefs expressed in these groups may not be representative of the general public in other geographic areas in Japan. Third, we did not ensure that our interviews provided all possible relevant hypotheses. Because of limited resources, we could not continue interview sessions until no new information was provided. Therefore, the results we presented here should be perceived as preliminary. In this sense, it would have been preferable for us to continue our interview investigations until issues discovered from the interviews were 'saturated.' Finally, it should be mentioned that the research questions we formulated and the questions asked in the interviews might be biased because of our own unconscious pre-disposition towards a 'pro-research position', i.e., that medical research involving human participants is necessary in order to provide quality healthcare and help suffering people who rely on reliable scientific findings, and that a greater awareness of the need for medical research is necessary. What we achieved from our inquiries, therefore, might not be enough. Our results would have been more fruitful and ethically more meaningful if we had asked more fundamental questions regarding research, such as whether or not there is any moral obligation to participate in medical research, what constitutes benefit and harm in medical research,

[29] P. Singer. 1993. *How are we to Live? Ethics in an Age of Self-interest.* Melbourne. The Test Publishing Company Pty Ltd: 125.

[30] Corbie-Smith, *op. cit.* note 16.

[31] Schattner et al., *op. cit.* note 17.

what kind of medical researchers are trustworthy, and what role research ethics should have.

In conclusion, the present study suggests that there is a good possibility that the lay public and medical professionals have sharply different beliefs about and attitudes towards every aspect of medical research. The need for good patient-doctor relationship based on trust is a key issue in medical research, and it is mandatory to fill the perceptional gap regarding medical research between them through fully informed debates. Since medical researchers and physicians tend to have superior power over patients, though unintentionally, they should try to understand layperson's perceptions regarding medical research by listening to the patients' voices more seriously and humbly. Cultivating trust by building more equal relationships with research participants, who are patients as well, would be essential.

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Clinical Ethics Discussion 4: Urgent "lifesaving" clinical research

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Abstract

No matter how far medicine advances, incurable disease will inevitably exist; and the dying patient's last resort will likewise look to medical research. In this report, we examine a case concerning the use of experimental medical therapy on a critically ill child. We discuss the ethical argument pertaining to the recommending of experimental medical therapy to the family of a dying patient.

Under the circumstances of having to face the impending death of one's own child, parents of a terminally ill child are extremely vulnerable to suggestion and often loose the ability to make a composed decision. Moreover, there exists the possibility of not only patients, but also medical staff and researchers, to fall into therapeutic misconception. Likewise, for the terminal patient and his/her family though, experimental medical therapy is often the only hope, which is, however, always accompanied by a factor of uncertainty and is considered to be merely an unapproximated gamble. The proposing of experimental medical therapy can result in being cruel by shattering the parent's expectations of saving their child.

We examine the issues involved in proposing an experimental medical therapy to patients who are in dire need of a last hope; and conclude that, in times of emergency, we must take great consideration in recommending an experimental medical therapy as an "innovative treatment." In extreme circumstances where an individual's life is on the line, doing nothing can be quite trying; yet, what is *right* is not necessarily doing something, but rather making the right decision.

Key words: vulnerability, experimental medical therapy, critically ill, cruelty, double uncertainty, and pediatric patient.

1. Introduction

No matter how far medicine advances, incurable disease will inevitably exist; and the despair that lingers in the hearts of those to whom have lost a child or spouse unfortunately does not fade away. Likewise, the medical staff whom stand before a suffering patient and his/her family are faced with a feeling of utter powerlessness. This runs deep for the many who are affectionate and see their work as a mission. While death that lies in the wake of longevity is rather easy to accept, death of an infant or of one's own child is seen to be subversive and absurd. Unfortunately, this absurdity is dealt with all too often for those whom are in pediatrics. Here, medical research exists as the last hope for the many patients and their families.

In this paper, we examine a case concerning the use of experimental medical therapy (EMT) on a critically ill child. We discuss the ethical argument pertaining to the recommending of EMT to a family of a dying patient. We explore: 1) how the parent's initiative of consent is influenced by the critical situation; 2) the commission/omission of treatment; 3) the psychology of therapeutic misconception; 4) lastly, we examine if it is permissible for the medical provider to propose an unproven EMT as innovative treatment to the family of a critically ill minor.

On the one hand, the argument for allowing the use of EMT considers the following three points: 1) the patient's approaching death; 2) the family and patient's right to receive EMT; and 3) how such lies in accord with the fundamental goal of medicine. On the other hand, the argument against the use of experimental therapy considers the respecting of a patient's dignity, the factor of double uncertainty, the issue of cruelty, the limits to providing access to information, the dangers of a slippery slope effect, possible therapeutic misconception by medical staff, and the impartial allocation of medical resources.

Following a review of the various discussions and arguments, we conclude by investigating the following points: 1) the patient's proxy's loss of decision making capacity; 2) the risk of therapeutic misconception by the medical provider; 3) the fact that EMT, while seen as a last hope, is a gamble with an unclear outcome and carries an inevitable uncertainty; and 4) the cruelty of shattered expectation as associated with this gamble. Here, we consider the distress involved in proposing EMT to those who are in dire need of a last hope; and conclude that, in times of emergency, we should not recommend EMT.

Lastly, we investigate the role of an Institutional Review Board and Research Ethical Committee (hereafter referred to as IRB). We conclude that, in circumstances similar to the case of discussion, it is necessary for such committees to stop EMT upon an objective examination concerning the possible merits and demerits of the EMT, the shading of therapeutic misconception and the possible alterative motives of the medical staff and so on. In extreme circumstances where an individual's life is on the line, doing nothing can be quite trying; yet, what is *right* is not necessarily doing something, but rather making the right choice.

The case we present is based on our hands on experience; however, all peoples, diseases and treatments are products of our imagination. Any similarities between the presented case and real life occurrences are merely coincidental and shall not be seen as in any way related.

2. The Case

Patient D, a five-year-old boy with a rare autoimmune disease A has been in and out of a university hospital since the onset of disease A. Currently, there exists no proven effective therapy for disease A. Treatment has been limited to attending to any and all complications.

Patient D is gradually slipping into a state of unconsciousness; his chart shows that his blood pressure is highly instable caused by pericarditis and myocardosis, which eventually lead to pulmonary edema and heart failure. His level of nutrients, his liver and kidney function continue to deteriorate leaving little or no room for possible treatment.

Patient D's parents have tried every possible means of treatment, each a disappointment. Now, as they burden in sorrow, they are having to face the arriving death of their son. Upon hospitalization, D has undergone medical therapy including the use of vasopressors; after undergoing a tracheotomy, he is hooked to a respirator. Due to the use of tranquilizers and being in a state of unconsciousness, however, D seems to be in a painless state.

D's physician, Dr. I, is a specialist in autoimmune diseases and is head of the department of collagen diseases. He has been treating D since the very onset. Not only does he feel professionally responsible, but also has come to feel emotionally responsible for D.

Throughout the two years of treating D, he and D's parents have become quite close. While D has become attached to Dr. I, Dr. I has gained a reciprocal trust from D's parents. Dr. I has consulted physicians located both domestically and abroad; he has reviewed the most recent literature in the field. All of his efforts, however, have come up with nothing.

A few days ago, Dr. I discovered a report in a medical journal for collagen diseases. This report looked at a series of cases whereby large doses of immune suppressants where prescribed to adults with final stage disease A. The results showed that while three of the 20 patients who participated in the study passed away, three also improved (1 life year increased). The remaining 14 participants showed neither signs of improvement nor deterioration; yet, with continual therapy, a decrease in lymphocyte count and the onset of a fever were observed. Ten of the patients had complications including vomiting, fatigue, and reversible liver/kidney damage. Bacterial infection was observed in five of the patients. (Note: The medicine used in this study can be covered by the national health insurance as a conventional therapy for autoimmune disorder.)

Dr. I believes that this EMT is D's last and final hope. The treatment, however, has never been used on a child or infant with disease A. Regardless of whether or not it could rescue D from the wraths of death, treatment of D could be used as an observational case for a further report.

Due to this treatment being nonstandard, it is necessary for Dr. I to submit a protocol to the IRB for approval. The IRB review process, which usually takes approximately two months, is too long for D to wait. D has only a number of days left. After staying up all night devising a protocol, Dr. I submits it to the IRB with a request for urgent review.

At this stage, we need to consider the following questions: Is it ethical to recommend this EMT to patient D and to D's family? Should the IRB prioritize the review of Dr. I's protocol? And what decision should the IRB make in this situation?