

Informed Consent in a Clinical Trial: Participants' Satisfaction of the Consent Process and Voluntariness of Participation

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Abstract

Using a semi structured questionnaire, a study of 88 out of 180 people enrolled in a antiretroviral therapy (ART) clinical trial in Africa was conducted to determine the voluntariness of their participation and their satisfaction with the consent process. Results revealed that participation was driven mainly by unmet health needs and participant reported benefits (free drug and tests). The absence of alternatives to access medical services has the potential to create ethical challenges to voluntary participation. Most of the participants saw the consent process as satisfactory; however, one has to wonder if the satisfaction might be based on the hope in the treatment being giving and/or on the trust they have in investigators and the institution. It is then of importance that research participants be given enough time to reflect on the information provided during the consent process before obtaining consent from them. Research participants from a developing country can be empowered to make autonomous decisions about participating in a study

Key Words: Informed consent, voluntariness, satisfaction, participants, clinical trial, decision, process

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INTRODUCTION

One of the core elements of informed consent (IC) is the freedom of participants to choose to participate in research or refuse participation without coercion. In other words, there should be no undue influence on the potential participant to participate. Beauchamp and Childress (1994) state that a person acts voluntarily to the degree that he or she wills the action without being under the control of another's influence. However, voluntary participation in clinical trials is among the most difficult requirements to ensure. Pressure from a community leader, family members, the power and authority of the medical professionals who serve as the investigators, issues around social desirability, and the fear of loss of health benefits that people would normally expect to receive may compromise the individual's freedom to refuse to participate in research. The National Bioethics Advisory Commission (NBAC) (2001) identified several barriers to ensuring free and individual choice to participate in research in some cultures or contexts. These include: deference to physician/health professional, low economic status of potential participants, low levels of awareness or education of potential participants, limited decision making power of women, community leader's disapproval and cultural customs that prohibit "refusing a guest" (rules of traditional hospitality).

In settings with limited health care facilities and where people are poor, the reality may be that participation in medical research offers opportunities to have access to services that are not otherwise readily available. The vulnerability of the potential research participants demands that researchers take seriously their responsibility to ensure the rights of the participants and that participation is voluntary.

This study describes the informed consent process in a clinical trial. How participants made up their mind to participate and their satisfaction with the whole consent process are detailed. The antiretroviral (ARV) clinical trial is a non-inferiority trial involving a new (generic) antiretroviral drug to be marketed within the country. At the time of study, ARV is available in some pharmacies in major urban cities of the country, but it costs about US\$200 to have a complete course for a month and US\$100 to have a generic. The cost is outside the reach of most HIV positive individuals in the country. Treatment for HIV patients in the country at the time of study is mainly through the five Federal Government Centres that provide ARV at a subsidized rate of US\$10 per month.

METHODOLOGY

Sample

Eighty-eight (48.8%) of the 180 people enrolled in the clinical trial of an antiretroviral therapy (ART) in Nigeria participated in the study after an informed consent was received from them. Of the 88 respondents, 51 were female and 37 were male. The mean age of participants was 39.2 (range 26-62). The majority (73) were Christians, and 55 were married at the time of the study. (See Table 1)

Table 1: Demographic Characteristics of Respondents

Demographic characteristics		No	%
Sex	Male	37	42.1
	Female	51	57.9
Employed	Yes	66	75
	No	22	25
Married	Yes	55	62.5
	No	33	37.5
Religion	Christian	73	82.9
	Islam	15	17.1
Education	Primary	12	13.6
	Secondary	33	37.5
	College/Technical	19	21.6
	University graduate	22	25
	Beyond first degree	2	2.3

Questionnaire

A 60-item investigator-generated semi-structured questionnaire was administered to the participants by the investigator and another trained interviewer. Ten of the items assessed voluntariness and 13 items assessed satisfaction. The investigator was not part of the ARV clinical trial, but was working in the Institute where the trial was being conducted. The questionnaire consisted of information based on the core elements of informed consent, transmission of and understanding of information, the nature of voluntary participation and demographic characteristics of respondents. In addition, participants' satisfaction with the various components of the Informed Consent process was assessed. These included questions about the consent form to determine the language of the form, its translation, their perceptions of the content, how often they read the form and the kind of consent obtained from them in the ARV trial. A narrative report of this was done. The questionnaire was pre-tested on a sample similar to the respondents. The interview took place two months after enrollment in the clinical trial.

Voluntariness

To assess voluntariness, participants were invited to describe how they decided to participate, who and what were involved in this decision and others' influence on their participation. Also elicited from them was their major feeling about participation, whether they were hesitant at any point, how the uncertainty was resolved and the major factor that motivated them to participate. In order to assess voluntariness, a Likert scale of voluntariness was developed by researchers to assess and rate subjects' description of how they decided on participation and who they consulted. The ratings were done on two

categories: pressure from others (family, researchers, and spouse) and personal feeling of having choice or no choice about participation. A reliability test (inter-rater) was applied to test the reliability of the translation. Forty of the subjects were selected to assess inter-rater reliability. A Spearman rank correlation was calculated for inter-rater reliability. The agreement was 81% for the measure of pressure from others; while the agreement was 89% for the measure of personal pressure, p value was significant for both ($p < 0.05$). See Table 2.

Table 2: Pressure From Others and Personal Feeling

Pressure from Others: Family, Researchers and Spouse	
5	Subject reports extreme pressure from others to participate with threats for non-participation
4	Subject reports strong pressure from others to participate, but no threats
3	Subject reports mild pressure from others to participate e.g. hopeful expectation of family or researchers
2	Subject reports strong encouragement to participate, but no pressure
1	Subject reports mild encouragement to participate, with no pressure
0	Subject reports no pressure or encouragement
Personal Feeling of Having Choice About Participation	
3.	Subject feels that they have no other choices, therefore have to participate because of benefits, but would have preferred not to participate, e.g. no chance of ART because of lack of money
2.	Subject feels that it would be wise to participate, given little or no choice, e.g. has spent much money on ART
1.	Subject feels that it would be an advantage to them to participate because of the benefits, even though there are other choices, e.g. can get ART free, even though could afford it
0.	Subject feels no great advantage to participation, and free choice about participation

Satisfaction

To examine clinical trial participants' satisfaction with the informed consent process, participants were asked to indicate on a Likert scale their level of satisfaction with the clarity of explanation, quality of information, utility of the consent process, effective response and overall satisfaction. Total satisfaction scores were also calculated.

RESULTS

Data were analysed with Intercooled Stata 7.0 software. Fifty-three percent of the respondents indicated that someone helped them make the decision to participate in the study (i.e., relatives, researchers). The respondents indicated various types of advice given to them by these people.

It is worthy to note that 35.2% of participants did not talk to anybody before deciding to participate. They felt that since the research is of direct benefit to them and HIV is a stigmatized disease, it was important not to talk to others about the research. One of the respondents said "I do not need to talk to anybody about the study. I need help with this disease and am taking that help without discussing with anybody, once I discuss with

others, the news that I am HIV positive will spread and this is what I have been avoiding.”

Respondents indicated that some of the advice they got helped them in making up their mind about participating or not. Responses regarding the degree of pressure experienced to participate in the study ranged from extreme pressure (9.1%) to mild pressure (37.5%). Responses related to encouragement ranged from strong encouragement (17%) to no pressure or encouragement (19.3%). One of the respondents said, “What option do I have? I am being forced to take part in the trial by my family, my elder sister who I stay with said she will drive me out of the house if I do not enroll in the research.” Another participant felt highly threatened by the counsellor who kept mentioning the English men as sponsors and how they will remove her from the study if she fails to comply. Some said that they were just encouraged by the advice. One person that was categorized as strong encouragement said, “The researchers told me this is the best study site where you get good treatment and attention; if you miss this opportunity, it might never come back to you.”

Various reasons based on personal pressure were given for why they decided to become part of the study. The reasons given include: have no other choice (55.6%), it is wise to participate (25%), participation is to my advantage (11.4%), and I have no great advantage to participate (8%). Most of them indicated that they joined the research because of the benefits and the concern they have for their health and life. One participant said in summary, “I have spent so much on ARV and seeing a place where it is relatively free and with adequate check-ups mean that I have to join the research to enjoy such benefits considering the fact that I also do not have another option.” Despite the fact that most of the respondents were attracted to the research because of the benefits, when asked if they ever considered refusing to be part of the research, 36.4% responded in the affirmative. The major reasons given for this consideration were those related to privacy/confidentiality, time to participate and personal health concerns. On how these uncertainties were resolved, participants considered the benefits, which they believed outweighed all the concerns. Some of the respondents made these uncertainties known to one or two members of the research team who convinced them that their privacy and confidentiality would be maintained. Others said that the researchers and also family members convinced them to participate (See Table 3).

Table 3: Advice Given to Respondents About Participation by Relatives and Researchers

Advice	Frequency	Percentage
It will help your life	38	43.2
Drug is good for you	37	42.0
It will reduce cost for you and others	33	37.5
The study centre is a good one	28	31.8
You should participate	25	28.4
Make sure that you enroll in the research	17	19.3

Relative to perceived pressure from others, a one-way ANOVA revealed no significant difference for Christian and Islam ($p = .20$), male and female ($p = .67$), married and not

married ($p = 1.00$), and employed and unemployed ($p = .46$). A Spearman rho indicated no relationship between perceived pressure from others and age ($p = .745$).

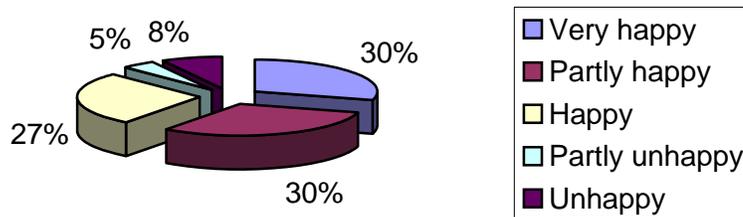
Of those interviewed, 70.5% signed and 27.3% thumb printed on a consent form. All of the respondents indicated that they were not given a copy of the consent form. A member of the research team in the clinical trial explained the form prior to giving them the form to sign. Those who requested to read the form were given it and requested to sign the form after going through it. Some of the respondents (23.9%) had the form translated for them before signing. By this they meant that a member of the research team did the explanation of the contents of the form in a local language. All indicated that the consent form they signed was in English. Of importance is the fact that 71.6% said that there were things in the form they did not understand or that the explanation given to them was not complete. When asked what they did not understand, 23.8% named some technical terms especially relating to the drug, 22.3% could not remember what in the form they did not understand at the time of this interview, and 15.9% said they did not read the form and had forgotten most explanations.

Their perception of the *quality of information* given to them varied. Almost half (44.3%) would prefer to have received more information before signing the consent form; 37.5% would not want more information; while 18.2% were not sure what they would want to know. Reasons given for not wanting more information included their interest in the drug and the benefits and not in information in the informed consent leaflet. "Everybody knows that what we have is serious and anywhere one can get attention should not be questioned" said one of the respondents. Those that would want more information would like it to be on the disease, drug, sponsors and everything the researchers think necessary for them to be knowledgeable about.

The time given to participants to decide on their participation ranges from 1 day to 60 days with a mean of 13.7 days and a standard deviation of 16.77. Seventy-seven percent believed they were given enough time to make decisions to participate in the study. Though a good percentage (50%) of these made decisions the same day they were approached, they believed that something working for their benefits does not require extra time in making decisions. More than one of them said, "Why do I need more time, the drug is good for me and will help me, tests will also be done free, so what am I thinking about?" Only twenty (22.3%) of them would have preferred more time to discuss the issue with others. Of this twenty, the majority (75%) said they would need between 2-4 weeks extra time.

The majority of the respondents said they were happy with the way information was given to them. (See Figure 1)

Fig 1: Respondents satisfaction with the way information was given



Two of those that were not happy about the way information was given to them particularly felt threatened by the way counselors talked with them.

The majority (69.3%) indicated they would like other types of information in addition to that which was given. The other information mentioned included drug reactions and dosages (49.1%), what happens after the trial (41%), and study design (36.1%), among others.

On the question of *comparative understanding* at the time of the interview and when they entered the study, more than half of them (65.9%) said there was no difference, whereas, 34.1% said that there was a difference. Aspects of the trial understood differently are: that they were involved in a study, the timing of study procedures and that they would not have access to their test results.

It is interesting to note that 58 of the respondents indicated they were given enough opportunity to ask questions during the consent process, whereas 27 said they did not have enough opportunity. Of the former, 59.3% said the questions were not answered to their satisfaction. They all knew they had to come to the clinic if they had any complaints, as the researchers did not give any name or telephone number to contact in case of emergency. The seven that indicated they had a phone number said they got it from personal interactions with members of the research team.

More than half of the respondents made suggestions about how researchers could improve the consent process. Suggestions made include, make pamphlets/posters (26.8%), researchers should take more time to explain research (37.5%), give participants enough time to go through the form and think about the research (35.7%), and attend to people punctually and on time (12.5%).

As part of measure of respondent's satisfaction to the consent process, they were asked if they would recommend to family or friends to be part of a research study. Seventy-six percent responded in the affirmative, whereas, 21.6% gave a negative response. The

majority (59.7%) of those that said yes gave benefits involved in research as a reason to encourage others. Nine percent of them thought that the fact the research improves knowledge was a good recommendation. For those that responded in the negative, a majority (52.6%) felt that it is the decision of the participant to make. Other reasons mentioned are that there are risks involved in research (31.6%), the toxicity and side effects of drugs (10.5%) and the distrust they have for pharmaceuticals (5.3%). Interestingly, only 18% of the respondents did not feel satisfied with the whole the consent process.

DISCUSSION

This study looked at the process of decision-making and participants' satisfaction with the consent process of patients enrolled in a HIV clinical trial in Nigeria, Africa. Although participants consulted family members and researchers before making any decision about participation, it is interesting that in most cases, the decision to participate was made by the individual participant; though they considered the advice of others in this process. The relatives that were involved were very close relatives: mainly spouse, siblings and parents. None of the participants wanted outsiders to know about their involvement in the research. Probably because the participants were HIV positive, and because the disease is often stigmatized. It might have been a different outcome if the research involved a less stigmatized disease. However, one cannot tell until such research is carried out in the country and comparison made. It can also be that research which is taking place in an urban centre with people from diverse regions and cultures may reflect the changing structure and societal values that has accompanied western education, industrialization and urbanisation, which has resulted in large-scale disruption of traditional patterns of life. A study undertaken for NBAC (2001) seems to support this view.

Threats to autonomy can arise from the vulnerability of potential subjects as well as from characteristics of the researcher, the researcher's acts and the research setting. Research that examines the voluntariness of decisions to participate in research is scanty. Hence, this scarcity may reflect the lack of a consistent method or adequate tools for measuring voluntariness.

This study developed two criteria for the measurement of voluntariness (i.e. perception of influence from others and the subjective feeling of pressure to participate as a result of their personal situation). Suggested results are that family and friends can influence decisions to participate in research. This is done either directly by pressuring family members to participation, using threats for non-participation or indirectly by providing the necessary support and encouragement to participate. . Further, it appears as if the researcher's status may influence potential participants' willingness to participate in research. Several participants alluded to select research practices, which might have threatened the voluntariness of research participation. Faden and Beauchamp (1980) identified three forms of influence that may be exerted by researchers: persuasion, manipulation and coercion.

Some trial participants reported pressure from researchers and family members to participate in the research, with some reporting very extreme pressure from family. For those that reported family pressure, their position in the family might be a contributing factor as some of them are still dependents and have to go along with family decisions. Two of them felt threatened by the way information was given to them by trial staff and participated because of fear of the researchers. We were made to understand by the principal investigator of the research that having counsellors as research team members was a later addition to the study after the importance of having them as team members were made known to the research team. Upon further investigation, it was observed that the counsellors did not receive any special training at the time of this investigation even though it involved counselling HIV patients. This might explain the way they gave information to participants. Training was provided to the counsellors and researchers at the end of this data collection.

Some individuals might have felt compelled to participate in research because of their health or disease status, and/or other personal considerations. Other socio economic factors such as limited access to health care services may also have influenced a decision to enroll in research. Most clinical trial participants in this study enrolled as a result of the perceived research benefits, and because of having no other means of help. They balanced the benefit of receiving free drugs and improving their health status with the cost of personally financing antiretroviral therapy, and believed that participating in the research would benefit them and reduce the huge cost of buying antiretroviral on a monthly basis. The monthly cost of taking a generic ARV treatment in the country is about \$100, and another \$150 for conducting the necessary tests. Most of the participants could not afford to spend \$100 on drugs every month. The absence of alternatives to access medical services creates challenges to voluntary participation.

This study did not find any differences between gender, age, education, marriage, employment and occupation relative to voluntariness. Thus, no particular vulnerability was associated with demographic factors.

CONCLUSIONS and RECOMMENDATIONS

There has been a lot of debate about the amount of information that is appropriate to provide when seeking consent. Some have argued that it should be all the necessary information; while others have said it should be limited. Some trial participants in this study wanted a brief description, while others wanted comprehensive details. Although the information sheet was appreciated by them, many would have liked to take this form home, read it over again, digest the information properly and discuss with others. The authors suggest that this should be implemented during consent, as it may improve the consent process and participants' understanding. Respondents indicated that there were some technical aspects of the form that they did not understand. Most of the side effects of the drugs were technically written and that might have explained why participants did not understand some of the risks involved in the study. We, therefore, recommend that information sheets should be written in simple terms to aid participants' comprehension: especially those with limited education.

Our research found that clinical trial participants report they had ample opportunity to ask questions, which some believed were answered to their satisfaction. Overall, they saw the consent process as satisfactory. The only thing that may mitigate their reported satisfaction with the consent process is the finding that none of them had a copy of the consent form and 71.6% indicated that there were aspects of the consent form they did not understand. Most importantly, participants in this study might have reported being satisfied with the consent process because they saw the research as a way of meeting their medical and financial needs and improving the quality of life they live as HIV positive patients, their trust in the investigators and/or institution than on the comprehension of information. It is therefore our duty as researchers to be cognizant of the needs and motives of vulnerable groups that participate in research and to treat each with respect and dignity.

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