CASE STUDY #1: Assessing Inappropriate Supplement Use in Children

Background

Dr. Claire Blancher notes in her pediatric practice that a number of adolescent patients are taking nutritional supplements which are not recommended for their age. The supplements include:

- Creatine taken by young athletes to increase endurance and strength.
- Diet pills for weight loss, such as "Hydroxycut" and "Thermo Rip Fat Burner"

Dr. Blancher is concerned, as the American Academy of Pediatrics recommends that creatine supplements not be used by persons under 18 since they pose a variety of potential adverse effects, including liver damage and renal disease. Likewise, the AAP recommends against diet pills for children. Potential side effects of thermogenic supplements (supplements designed to facilitate weight loss by increasing body heat through metabolic stimulation) can include heart palpitations, cardiac arrhythmia, diarrhea, abdominal pain, and insomnia.

Dr. Blancher worries that there may be a potential public health crisis forming, if this type of inappropriate supplement use becomes widespread, and wants to better understand the problem. In speaking with her patients, Dr. Blancher learns that many started on a specific supplement after a recommendation by a store clerk at the Vitamin Shoppe or GNC stores. Dr. Blancher decides to perform a research study to assess the practices of these stores in regards to supplement recommendations to children.

The Study

Dr. Blancher designs a "deception" study in which her study team personnel (3 college students volunteering in her office for the summer) will telephone stores that primarily sell dietary supplements and ask to speak with a sales attendant. 300 stores will be contacted in total, including GNC, Vitamin Shoppe, etc.

During the phone calls, researchers will pose as either a 15 year-old male football player looking to gain weight by adding muscle mass, or a 15 year-old female trying to lose weight. In both cases, researchers will ask what supplements the sales attendant would recommend. In the teenage male scenario, research personnel will specifically ask whether the sales attendant would recommend creatine. In the teenage female scenario, researchers will specifically ask whether the sales attendant would recommend "Hydroxycut" or "Thermo Rip Fat Burner", both of which are recommended for adult use only. Finally, researchers will ask whether a minor could purchase any of the recommended products. Researchers will not link study data collected to individual stores, but will record the geographic region (Northeast, South, Midwest, or West) for each store. No audio recording of the phone conversations will be captured. Instead, the associated data sheets will be completed during each phone call.

While posing as 15-year old teenagers on the phone, research personnel will not tell sales attendants that their responses are part of a study. This deception, Dr. Blancher contends, is required for the study to attain accurate results.

Questions for Mock IRB Members:

1. Who are the research subjects of this study?

2. What are the potential risks to the subjects of this research and are the risks greater than minimal?

3. Are the potential benefits to science reasonable when compared to the risks to subjects?

4. Should the research subjects be “debriefed” after their participation (i.e. should they be told that they are in a research study after the research confederate has asked all the research survey questions?)

5. Does this study meet the criteria for approval at 46.111?

CASE STUDY #2: Investigational Drug for Treatment of Relapsed Glioblastoma

The prognosis of patients with relapsed gliobastoma is not good. The median survival rate for any patient with gliblastoma is 15 months. It is essential to find more effective treatments for this disease.

One form of standard treatment for this disease involves administration of Drug X, intravenously, every 2 weeks. This requires patients coming to the hospital every other week for treatment. In addition, IV treatment with Drug X can result in CNS hemorrhage, thromboembolism, and proteinuria.

Investigator Smith proposes to do a study in which Drug X is administered intraarterially, directly into the area, where the glioblastoma exists. They will be monitored with scans every 4 weeks, and if the tumor progresses, receive another injection of Drug X at that time. Standard monitoring for patients receiving Drug X intravenously occurs every 8 weeks.

Subjects who participate in this study will not receive standard of care, as they will not receive drug X intravenously.

The PI will perform the study's data and safety monitoring. She will review data after every 5^{th} patient to determine if aspects of the study need to be changed or stopped and review deviations, adverse events and unanticipated problems for their relatedness to the study, their severity, and whether they require reporting to the IRB and FDA.

Questions for IRB Discussion:

1. What procedures are in place to minimize risk to subjects?

2. How can an investigator assure that the subject understands that s/he is not going to receive standard care for his/her disease?

3. Is this study approvable per 45 CFR 46.111? Which criteria for approval might be in question?

CASE STUDY #3: BUSINESS SCHOOL STUDY

Two business professors, Milkman and Akinola wished to see if "students from underrepresented groups" (presumably racial and ethnic minorities, and perhaps women) would be less likely to gain the interest of doctoral faculty than "other students" (i.e., white guys). Emails were sent to 6300 professors in PhD-granting departments at American universities. The messages, purportedly from a student planning to apply to PhD programs and wishing for a brief meeting, varied by the name of the student and by the time of the proposed meeting. When a professor answered, they replied to cancel the meeting. The idea was to see if students with white-guy names received more or fewer invitations to meet than others. Names of students sending the email were very clearly white, African-American, Chinese, Indian, etc.

A few days after receiving the initial email, a debriefing e-mail was sent to all 6,300 professors explaining the sham.

Questions:

1. Is this study approvable per 45 CFR 46.111?

2. Is it appropriate to waive consent for this study?

An IRB may approve a consent procedure which does not include, or which alters, some or all of the elements of informed consent set forth in this section, or waive the requirements to obtain informed consent provided the IRB finds and documents that:

(1) The research involves no more than minimal risk to the subjects;

(2) The waiver or alteration will not adversely affect the rights and welfare of the subjects;

(3) The research could not practicably be carried out without the waiver or alteration; and

(4) Whenever appropriate, the subjects will be provided with additional pertinent information after participation.

Reference: http://www.irbforum.org/forum/read/2/292/292

CASE STUDY #4: CLINICAL TRIAL OF AN FDA APPROVED DRUG

An FDA approved drug (approved in both adult and pediatric populations) is proposed by an investigator to be studied for a new indication. The indication is for an orphan disease, and will involve only pediatric subjects (the population this disease most commonly occurs within). The eligibility criteria for the study includes both boys and girls, however the investigator has decided to exclude girls 12-20. Boys age 2-20, and girls age 2-11, are included.

The justification for the exclusion provided by the PI is that the indication under study is more frequent in boys than girls (approximate ratio of 3 boys for every 2 girls), that the risks to a potential fetus are unknown, and thus girls of child-bearing potential should be ineligible. However the drug is FDA approved (for other indications) for pediatric subjects down to age 2, and is Pregnancy Category B. The impression of several IRB reviewers is that the PI simply does not want to deal with a pregnancy test or counseling in the 12-20 year old female population to avoid pregnancy.

Questions:

1. Would principle of the Belmont Report does this study call into question?
2. Is the exclusion of girls older than 11 justifiable?
3. Is this study approvable per 45 CFR 46.111? What criteria for approval might be in question?