Therapeutic Touch was first developed in the early 1970's by Dolores Krieger, a faculty member in Nursing at New York University. The practice of this therapy rests completely on the presence of the Human Energy Field. Therapists are trained to manipulate the Human Energy Field to detect illnesses and to stimulate recuperative powers. There are three steps involved in this process, none of which requires direct contact with the patient's body. In the first step, the practitioner focuses his or her attention on helping the patient. The second step involves the practitioner's assessment of the patient's body, by moving his or her hands over the patient's body from a distance of 5-10 cm. Finally the practitioner tries to heal the patient by modifying the patient's energy field.

Whether the Human Energy Field exists and can be sensed and manipulated is a matter of controversy. The results of this study investigating the validity of Therapeutic Touch are based on an experiment involving 21 Therapeutic Touch practitioners from northeastern Colorado. The study was conducted as a school science project by an 11 year old, Emily Rosa.
Protocol

The experimenters located 25 Therapeutic Touch practitioners in northeastern Colorado by searching through advertisements and following other leads. Four of these practitioners declined to take part in the study. There were two series of tests conducted, the first in 1996 and the second in 1997. Fifteen practitioners were tested in 1996 at their homes or offices on different days for a period of several months and 13 were tested in 1997 on a single day. Seven practitioners took part in the tests at both times. During each test, the practitioners (subjects) rested their hands, palms up, on a flat surface, 25-30 cm apart. A tall opaque screen, cut out at its base, was placed over their arms with a cloth attached to the screen so that the hands of the experimenter (Emily Rosa) could not be seen by the subject. The experimenter flipped a coin to decide which of the subject’s hands would be the target. She then moved her hand 8-10 cm above the target and said, "Okay." The subjects could then take their time to state which of their hands was closest to the experimenter’s hand. Each subject was tested ten times and the results were recorded. The experimenter decided in advance that the subject would "pass" the test if he or she had eight or more correct selections. The number of correct answers ranged from two to eight on the first test and one to seven on the second test.

Results

The results of the Therapeutic Touch experiment are summarized in this table.

Based on these results, the authors declared that Therapeutic Touch claims are groundless and that the practitioners cannot actually perceive a Human Energy Field.

Table: Therapeutic Touch experiment summary.

<table>
<thead>
<tr>
<th>Study Year</th>
<th>Number of Trials</th>
<th>Successes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>150</td>
<td>70 (47%)</td>
</tr>
<tr>
<td>1997</td>
<td>130</td>
<td>53 (41%)</td>
</tr>
</tbody>
</table>
Questions

1 2 3 4 5

Is this a controlled experiment or an observational study? Do you think it is a well-designed study? Explain.

a) To what population do the results of this study apply? Does the selection of the subjects in this study allow you to draw inferences about this population? Explain.

b) Does this study address the question of the healing power of Therapeutic Touch? Explain.

c) Can some of the problems from Part a and Part b be resolved by designing the experiment differently?