Low self-esteem is associated with a range of mental health difficulties, including anxiety and depression. Fennell (1997) developed a cognitive model of self-esteem to explain these associations. Within the model, negative beliefs about the self are viewed as core beliefs that are relatively global and enduring, and that make a person vulnerable to reacting with anxiety and depression to events and circumstances that activate core beliefs. Fennell (2006) has developed a treatment package designed to enhance self-esteem.

Smith and Jones (2010) adapted this treatment package for use in a group setting. After obtaining names and contact details from the service, the researchers telephoned all female clients on the waiting list of a Community Mental Health Team. Following a set script for the call, the researcher described the purpose of the study, what participation would involve, the voluntary nature of the study and the right to withdraw at any time, confidentiality and data storage issues, and potential risks. It was also explained to the person that, to avoid the confounding effects of other treatments, their first appointment with the CMHT would, if necessary, be delayed until the four weeks of the group treatment was completed. At the end of the call, the person was asked whether she would be willing to participate. Those who agreed were then sent details in the post of when and where the group meetings were to be held. At the start of the first session, the study was again described to those who attended in a short presentation. Attendees were given the opportunity to withdraw from the study at that point. Those who agreed to continue with participation were then asked to sign a consent form.

Seventy-three women were on the waiting list at the point when the phone calls were made. The researchers managed to contact 65 of these. Of those contacted, 32 agreed to take part. These 32 participants were randomly allocated to one of four groups. Each group was run by a different member of the research team who was trained to follow a manual for delivering the treatment. Each group met twice weekly for four weeks. Eight participants dropped out of the programme, and only 20 attended all eight sessions.

Participants completed the Beck Anxiety Inventory and the Beck Depression Inventory before the start of the group intervention, and again after its completion. The researchers wanted the analysis to focus on change that was clinically, as well as statistically, significant. Scores on the BAI and BDI can be categorised as ‘severe’ (anxiety or depression), ‘moderate’, ‘mild’ and ‘none’. The researchers therefore decided to do an analysis that compared the before-treatment and after-treatment distributions of these classifications, using the chi-square statistic. The results are shown in Table 1. The analysis was conducted on the 24 participants who did not drop out of the treatment programme.

<table>
<thead>
<tr>
<th></th>
<th>Severe</th>
<th>Moderate</th>
<th>Mild</th>
<th>None</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>BDI - before</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>BDI - after</td>
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<td>5</td>
<td>9</td>
<td>8</td>
<td>24</td>
</tr>
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</table>

chi-square = 2.69; df = 3; p = 0.44

<table>
<thead>
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<th>Mild</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI - before</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>BAI - after</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>11</td>
<td>24</td>
</tr>
</tbody>
</table>

chi-square = 1.5; df = 3; p = 0.68
**Instructions for completing the test**

You must answer all questions. You will not pass the test if you omit to answer one or more of the questions.

Please indicate clearly on your script which question you are answering if you are completing the test on paper (this is automatically clear on the computerised version).

Your answers will be marked on your written presentation as well as on content. Therefore:
- Please ensure that you write in full sentences. Do not write in note form.
- Avoid errors of punctuation, spelling and grammar.
- Take time to proofread your answers at the end, and ensure that your meaning is clear.

The number of marks awarded for each question is capped. When you are asked to confine your answer to three issues, please note that you will be marked only on the first three points that you make. You will not be given extra marks for more than three, so do not waste time adding more.

You must not access the internet during the exam, anyone caught doing so will be disqualified.

Do not press the final save/submit button until you are sure you have finished the whole test as you will not be able to go back in again. You can however, save individual questions as you go along and you can go back into them. NB the system also saves automatically on a regular basis.

**Question 1 (6 marks):** What do you think were the methodological limitations of the study? In your answer, state what the limitation is and explain why it creates difficulties in drawing conclusions from the study. Confine your answer to three issues that you consider most relevant.

**Question 2 (6 marks):** In one or two sentences, write a brief summary of the results of the statistical analysis (such as how results might appear in the abstract of a paper). What limitations do you think there were in the way the authors decided to analyse the data? Confine your answer to a maximum of three limitations.

**Question 3 (6 marks):** What ethical concerns do you have about the way in which participants were recruited? Confine your answer to three ethical issues that you consider most relevant. Focus only on the information you are given: Do not discuss issues that you have not been provided any information about as you will not receive any marks for this.

**Question 4 (6 marks):** Suppose you were working with a client and your formulation highlighted low self-esteem as an important target for intervention. What issues would you consider in deciding what treatment approach to use? Confine your answer to three issues that you consider most relevant.