Lab 4

A placebo controlled clinical trial of a new treatment for chronic pain was performed on 200 patients in a pain clinic. 100 patients were given the new treatment and 100 patients were given placebo. A pain questionnaire was administered to all 200 patients 1 week later. Based on the questionnaire, patients were classified as having moderate to severe pain (pain = 1) or mild to no pain (pain = 0).

(1) Summarize the data relating to pain by treatment.

(2) Perform a logistic regression with treatment as the only explanatory variable. Then come up with the logistic model equation p in terms of treatment variable.

(3) Compute McFadden's pseudo-R squared.

(4) Perform a multiple logistic regression predicting pain from treatment, age, and severity at baseline score. Summarize briefly the output from this model. Give the odds ratio for treatment, age (for a 10 year increase), and severity at baseline.

(5) Which model fits the data better? Support your response with evidence from your output.