London School of Hygiene & Tropical Medicine

ASSESSMENT FEEDBACK
2022 - 2023

<u>1st Marker only</u>: Please put your comments on this sheet which will be returned to the student together with their assessment grade.
Please do not write the grade on this sheet.

LSHTM Candidate No	**221162**	**Module Code**	**2038**

Summary of the main characteristics of the work *(strengths and weaknesses) plus* ***specific comments*** *(illustrated with reference to the student's work; comments may refer to the work's content, structure, use of literature, understanding, rigour of argument, presentation etc). Be sure to include an* ***Explanation of the grade given*** *(refer to grade criteria, explain why it is not better) and* ***how the work might have been improved***

This was a very good report. The strengths were that results were correctly interpreted and there was an excellent discussion section. To improve the report, findings could have been reported more fully such as by including confidence intervals and p-values for each of the regression models. This could have been done in the tables that present the results from each model. However, in general the report demonstrated good understanding of the topic. Some comments below by section

Methods
This was good. It mentioned all the statistical techniques used in the report, but it did not clearly explain what variables were included in some of the regression models. This could be improved, for example, if instead of saying "Several linear models are fit on the pre-manifest HD group" you could say something like:
"Three models with SDMT as the outcome were fitted for the pre-manifest HD group. These models included as predictors: (1) age alone; (2) CAG repeat length alone; (3) age and CAG repeat length together."

Results
This section was good. It was clear that you had conducted all the analysis we asked for as part of the report and your analysis was done correctly. The main limitation of this section of the report was that details were left out in the write up. In particular, results for regression models generally only gave the regression coefficient and standard error. In future reports I suggest you include the confidence interval and p-value, as this would help readers understand the findings more easily.

For the final 3 group comparisons, very limited detail was included. The report mentioned that the one-way ANOVA "found no significant difference" and for the ANCOVA only the findings on comparison between healthy controls and group 3 was given. It would have improved this section if you had given the coefficients, confidence intervals and p-values for each HD group compared to control from both the unadjusted (ANOVA) and age adjusted (ANCOVA) models.

A strong part of the results section was that you gave very clear explanation of why differences in age explained the changes in the findings between the adjusted and unadjusted models.

Discussion
This was excellent – well done. You gave a very nice summary of the findings, covering all the major points and noted some important limitations of the study.

Equation

This was correctly written out, but had a couple of errors in the model definition and interpretation:
Since you wrote out the equation including the residual term, y_i would be the observed value of the SDMT score, not the expected value.
The coefficients β1 and β2 are the difference in mean SDMT score comparing each group to controls, **holding age constant**.