

Note. This is a preview the Final Analysis Report. This preview may differ from the final version of the Final Analysis Report which will be sent to teams via email. Do not use this preview to submit your team's final analysis.

FINAL ANALYSIS REPORT

[INSERT FIRST NAMES, SURNAMES, INSTITUTIONAL AFFILIATIONS AND COUNTRY AFFILIATIONS OF ALL TEAM MEMBERS]

Conflicts of interest: [DECLARE ANY FINANCIAL AND INTELLECTUAL CONFLICTS OF INTEREST OF YOUR TEAM MEMBERS]

Contributions: [DECLARE HOW EACH OF YOUR TEAM MEMBERS CONTRIBUTED TO THE FINAL ANALYSIS]

ELIGIBILITY CHECKLIST

Please tick the following statements to confirm them. Please note that if your report does not satisfy all these statements it will be considered incomplete and **therefore not eligible for inclusion in the study.**

☐ Our analysis was conducted on the Synthetic Dataset

☐ Our analysis attempts to answer the research question “is computer use during weekdays and weekends at 16 years old associated with depression at 18 years old?”.

☐ Our analysis code is contained in the folder accompanying this Final Analysis Report.

☐ The project coordinators have confirmed that our analysis has been replicated.

☐ Our analysis code is written in R or Python and is in the format described in the *Submission Guidelines* (can be found here <https://osf.io/u7qp2/>).

☐ We have provided a written description of our analysis strategy.

☐ We have provided a full description of our analytical choices including our definition of both ‘depression’ at 18 years old and ‘computer use’ at 16 years old.

☐ We have provided a rationale for each of our analytical choices.

☐ We have described our model’s results in terms of AIC/DIC, odds ratios, 95% confidence intervals and p-values.

☐ All our team members are over the age of 18

☐ All our team members have completed the survey linked to in this form

OUR FINAL ANALYSIS

Please provide details of your team's statistical approach specifically: your analytical choices and their rationale and your results. Your answers will be used to describe your analysis in the final manuscript. Please provide enough information for a naive researcher outside of your discipline to understand your approach.

Description of analysis.

Please provide a short description of your analysis. This will be used to describe your analysis in the final manuscript.

[Free text description]

Analytical choices.

Please explain the analytical choices you made during your analysis. You are asked to provide a rationale for each choice. We should be able to replicate your analysis from this description.

1. Outcomes:
 - a. How did you define depression? [free text description]
 - b. Why? [Free text description]
2. Exposures:
 - a. How did you define computer use? [free text description]
 - b. Why? [Free text description]
3. Transformations
 - a. What transformations were applied to the variables? [free text description]
 - b. Why? [Free text description]
4. Outliers
 - a. How did you deal with outliers? [free text description]
 - b. Did you exclude any cases? [yes/no]
 - c. What rules did you use for exclusion? [free text description]
 - d. Why? [Free text description]
5. Missing data
 - a. How did you deal with missing data? [free text]
 - b. Why?
6. Covariates and controls
 - a. What variables were included as covariates or control variables in your model? [Free text description]
 - b. Why? [Free text description]
7. Statistical models used
 - a. Name [free text]
 - b. Please describe the model (include the model formula) [Free text description]

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- c. What are some references for your model (even if you think it is 'standard' please give a reference to a similar use to yours)? [Free text description]
- d. Why did you use this technique? [Free text description]
- 8. Other
 - a. Please describe any other parameters, or techniques used in your analysis e.g. regularization techniques, justifications for priors (in Bayesian analysis). Please provide references [Free text description]

Results.

Please state the results of your analyses using AICs/DICs, standardised odds ratios, 95% confidence (or credible) intervals and, if appropriate, p-values below. Note:

- If you have more than one exposure variable, or your exposure variable has more than two levels then you will have multiple odds ratios. Please make sure the definitions of these are included in your *Final Analysis Report*.
- The definitions of AIC and DIC are:

AIC: $2 \cdot k - 2 \cdot \ln(\text{Likelihood})$

DIC: $2 \cdot p - 2 \cdot \ln(\text{Deviance})$

$k(p)$ = number of (effective) parameters. For the deviance please use the version implemented here:

<https://www.rdocumentation.org/packages/AICcmodavg/versions/2.2-1/topics/DIC>

Variable definition	Value	95% CI	p-Value
Odds ratio: Outcome/Exposure level 1			
Odds ratio: Outcome/Exposure level 1			
AIC/DIC			

Feedback

As a team do have any feedback about the project e.g. it's coordination, how it could be improved, etc? [Free text description]

SURVEY TO BE COMPLETED BY EACH TEAM MEMBER

Demographics

1. Name
2. Age in years
3. What is the highest qualification you have attained? [drop down - bachelors, masters, PhD, other]
 - a. If other please specify [free text]
4. What title best describes your current position? [drop down - doctoral student, postdoctoral student, assistant professor, associate professor, full professor, outside of academia]
5. How many years have you spent in research (including the years you spent doing a PhD)? [Free numerical text]
6. Have you read the paper by Khouja et al (2019)? [No/Yes-abstract/Yes - results/ Yes - methods/ Yes - methods & results/entire paper]
7. Did you access the original ALSPAC dataset during this study? [Yes/No]
8. Did you see or discuss the Synthetic Dataset before you submitted your Team Registration Form? [Yes/No]
9. Did you or your other team members communicate with other MAPS teams about the Synthetic Dataset or your analysis strategies?
10. To what extent do you agree that your team's analysis is independent of analyses planned by other MAPS teams? [strongly disagree 1 - strongly agree 7]

Statistical Expertise

1. Do you have any of the following qualifications in statistics or a statistics-related field? [bachelors, masters, PhD, other]
 - a. If other please specify [free text]
2. Have you taught an undergraduate level statistics course?

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- a. Yes - How many times in total?
3. Have you taught a graduate level statistics course?
 - a. Yes - How many times in total?
4. Have you published a paper on statistical methods?
 - a. Yes - How many papers in total?
5. Have you published a paper that used statistical models?
 - a. Yes - How many papers in total?
6. To what extent do you agree that you are an expert in statistics? [strongly disagree 1 - strongly agree 7]

Research Question Expertise

1. Have you published a paper on screen-time and mental health research?
 - a. Yes - How many papers in total?
2. To what extent do you agree that you are an expert on screen-time and mental health research? (strongly disagree 1- strongly agree 7)

Subjective Beliefs

This section will ask you about your current opinions regarding the research question studied in this project: *is computer use during weekdays and weekends at 16 years old associated with depression at 18 years old?*

A positive association indicates that computer use at 16 is linked with increased depression at 18.

A negative association indicates that computer use at 16 is linked with decreased depression at 18.

No association indicates that computer use at 16 and depression at 18 are not related.

1. What do you think the association is between computer use at 16 **during the week** and depression at 18? (strong negative association [1] - strong positive association [7])
2. How sure are you that this estimate for computer use **during the week** is true? (very unsure [1] - very sure [7])

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3. What do you think the association is between computer use at 16 **during the weekend** and depression at 18? (strong negative association [1] - strong positive association [7])
4. How sure are you that this estimate for computer use **during the weekend** is true? (strong negative association [1] - strong positive association [7])

Authorship

1. Do you wish to be included as an author on reports of this project e.g. papers, conference abstracts, etc.
 - a. Yes/No
 - i. If yes what is your publication name?

Feedback

1. Do you have any feedback about the project e.g. it's coordination, how it could be improved, etc?