ENVIRONMENTAL-RISK (E-RISK) LONGITUDINAL TWIN STUDY CONCEPT PAPER FORM

Proposing Author: Robert Plomin

Author's affiliation, phone, and e-mail address: SGDP

Sponsoring Investigator (if the proposing author is a student, a post-doc or a colleague):

Proposed co-authors: Emily Smith-Woolley, Sophie von Stumm

Provisional Paper Title: Low IQ in Emerging Adulthood

Date: 30 July 2018

Objective of the study and its significance:

In the current TEDS grant (2015-2000), we proposed to look at 'emerging adulthood' ('TEDS-21') issues for twins with low IQ. The problem is that TEDS only has IQ data at age 16 and it's an online assessment.

The purpose of this request is to look at TEDS-21 outcomes for those TEDS twins for whom E-risk obtained WAIS data at age 18. (We made similar comparisons between TEDS online 'g' measures and E-risk IQ measures at ages 5 and 12, which we used for the current TEDS MRC proposal.)

The significance of the study is to assess the validity of TEDS-21 results using WAIS IQ scores.

So, this request is for 18-year WAIS IQ scores for E-Risk participants. We would need to link the E-Risk participant IDs to TEDS, as we have done before in co-ordinating address updates and genotype data for the two projects. The TEDS data manager, Andy McMillan, could work with the E-Risk data manager to do this.

Although most valuable would be the E-Risk IQ data at age 18, it would also be useful to be able to repeat our previous analyses comparing E-Risk IQ data at ages 5 and 12 with TEDS IQ data at ages 7 and 12. It would be useful to have age and sex as well to regress out these variables for the whole E-risk sample as well as the E-risk subsample for whom we have TEDS-21 data.

Statistical Analysis:

We will use simple descriptive statistics (correlations, means) to relate IQ at 16 in TEDS to TEDS-21 outcomes. For the subsample of TEDS participants who also have E-risk IQ data at age 18, we will repeat the analyses as a way of validating our results using a better and more contemporaneous measure of IQ.

Variables Needed

Sex; IQ & age at 5, 12 & 18

Data Security Agreement

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Please keep one copy for your records
(Please initial your agreement)

RP I am familiar with the King's College London research ethics guidelines (https://www.kcl.ac.uk/innovation/research/support/ethics/about/index.aspx) and the MRC good research practice guidelines (https://www.mrc.ac.uk/research/policies-and-guidance-for-researchers/good-research-practice/)

RP My project has ethical approval from my institution.

RP My computer is (a) encrypted at the hard drive level, (b) password-protected, (c) configured to lock after 15 minutes of inactivity, AND (d) has an antivirus client which is updated regularly.

RP I will treat all data as "restricted" and store in a secure fashion.

RP I will not share the data with anyone, including students or other collaborators not specifically listed on this concept paper.

RP I will not merge data from different files or sources, except where explicit approval has been given by the PI.

RP I will not post data online or submit the data file to a journal for them to post. Some journals are now requesting the data file as part of the manuscript submission process. The E-Risk Study cannot be shared because the Study Members have not given informed consent for unrestricted open access. Speak to the study PI for strategies for dealing with data sharing requests from Journals.

RP Before submitting my paper to a journal, I will submit my draft manuscript and scripts for data checking, and my draft manuscript for co-author mock review, allowing three weeks.

RP I will submit analysis scripts and new variable documentation to project data manager after the manuscript gets accepted for publication.

____ **For projects using location data:** I will ensure geographical location information, including postcodes or geographical coordinates for the E-Risk study member's homes or schools, is never combined or stored with any other E-Risk data (family or twin-level data)

____ **For projects using genomic data:** I will only use the SNP and/or 450K data in conjunction with the phenotypes that have been approved for use in this project at the concept paper stage.

Signature: .....

CONCEPT PAPER RESPONSE FORM

A. To be completed by the proposing author

Proposing Author: Robert Plomin

YES: I have read the E-Risk data-sharing policy guidelines and agree to follow them

Provisional Paper Title: Low IQ in Emerging Adutlhood

Potential co-authors: Emily Smith-Wooley, Sophie von Stumm

Potential Journals:

Intended Submission Date (month/year):
December 2018

Please keep one copy for your records and return one to Louise (louise.arseneault@kcl.ac.uk)

B. To be completed by potential co-authors:

Approved Not Approved Let's discuss, I have concerns

Comments:

Please check your contribution(s) for authorship:

D Conceptualizing and designing the longitudinal study

D Conceptualizing and collecting one or more variables

D Data collection

D Conceptualizing and designing this specific paper project

D Statistical analyses

D Writing

D Reviewing manuscript drafts

D Final approval before submission for publication

D Acknowledgment only, I will not be a co-author

Signature: .....