Outlook

Re: Quick Question

From Dawoodani, Elina <edawooda@purdue.edu>
Date Thu 3/13/2025 4:19 PM
To Guda, Sumeeth Krishna <sguda@purdue.edu>

2 attachments (634 KB)
FeATStudy.R; Results_Basic_FeAT.docx;

Thanks for the response, Sumeeth.
I spent some time understanding the dataset over the last few days, followed by basic cleaning and visualization; and I need your help with the same.

I only removed missing values (which is what my advisor suggested) and created a subset with variables of our interest. On doing so, I am left with just **22 participants (out of 12,000 who participated at baseline!!)** who have all variables needed + longitudinal data from across two years. Based on power analysis, I need at least **208 participants** to conduct this study. I'm unsure how to progress and I'd truly appreciate your insight before I talk to my advisor. I've attached my code + results so that you have a better idea of what I'm talking about. Feel free to email me if you have any questions.

To quickly recap:
1. I'm interested in looking at the longitudinal effect of iron biomarkers on BMI, via the mediation of hippocampal volume deficits.
2. The study didn't measure any iron biomarkers (or any blood variables, actually) until year 2 follow-up, hence year 2 becomes my baseline for this study.
3. Even after year 2, they measure iron biomarkers of select individuals only. I have no clue why this is the case. I'm assuming this is so because studying iron isn't the main objective of the study.

So, after basic cleaning, I had:
644 participants from 2_year_follow_up_y_arm_1 and
182 participants from 4_year_follow_up_y_arm_1 (chose year 4 because MRI valuables are measured once in two years)

I then tried to look at individuals who were in both year 2 and year 4, and it showed 22 participants. Please let me know your thoughts.

Thanks,
Elina Dawoodani
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West Lafayette, Indiana

"Somewhere, something incredible is waiting to be known." – Dr. Carl Sagan/Sharon Begley

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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Friday, March 7, 2025 11:55 PM
To: Dawoodani, Elina <edawooda@purdue.edu>
Subject: Re: Quick Question

Apologies for the late response. I think based off your aims and what was discussed upon during the meeting. I think it is possible to get preliminary results for the analysis, but it was extremely important for you to understand the data completely and see the end results after you clean and rescale it. One of the challenges at least on my end is that I cannot see your data and don't know how it is organized on my side, much less to do EDA. But I can give advice and possibly code to be used for toy datasets which would look like your current dataset. As well as we can always meet to discuss this project further. Let me know what you think.

- Sumeeth

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From: Dawoodani, Elina <edawooda@purdue.edu>
Sent: Friday, March 7, 2025 10:25:39 AM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>
Subject: Quick Question

Hi Sumeeth,

The deadline for abstract submission for the conference I was hoping to present at got extended by a week (new deadline: 21st March).

Given what you know about the project and your expertise in statistics, do you think it would be realistically possible for me to have at least some part of my work ready by then? I plan to start cleaning today and spend at least 6-8 hours every day on this project.

Thanks,

Elina Dawoodani
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