



The Influence of Personality-Associated Factors on Phone Dependency

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ABSTRACT

In the field of behavioral psychology, impulsivity and Fear of Missing Out (FOMO) have been associated with smartphone dependence, with potential differences in behaviors between genders. Previous studies on phone usage have measured phone dependence by the user's screen time. This study varies by looking at both screen time and phone pickups. The study was conducted out of curiosity to see if there is another association between these factors and phone pickups. Phone pickups are tracked every time the user picks up and opens their phone. Previous studies suggest impulsivity is linked to quick responses to stimuli without thinking, while FOMO relates to the need for social gratification (Moeller et al., 2001; Saibaba, 2022). There is limited to no current research on the newer feature of phones that allows the user to track their pick-up rates. The current study examines correlations between impulsivity, FOMO, and phone dependence, with additional analysis of gender differences. Participants (n=70), recruited from Carroll College psychology courses, completed the Barratt Impulsivity Scale (BIS-11), FOMO Scale (FoMOs), and Smartphone Addiction Scale-Short Version (SAS-SV). Additionally, data on the weekly average amount of phone pickups and screen time were collected from each participant, offering insights into the impact of smartphone usage. The hypotheses of this study predict that frequent phone pickups correlate with higher impulsivity, smartphone addiction, and FOMO scores, with men scoring higher on impulsivity and women scoring higher on FOMO. Results suggest FOMO scores are positively correlated with phone pick-ups. Additionally, women had a higher number of phone pick-ups on average as compared to men. Otherwise, no statistically significant correlations were determined between pick-ups and impulsivity, or pick-ups and smartphone addiction. These findings suggest a continued pursuit of studying which behaviors cause high levels of smartphone usage.

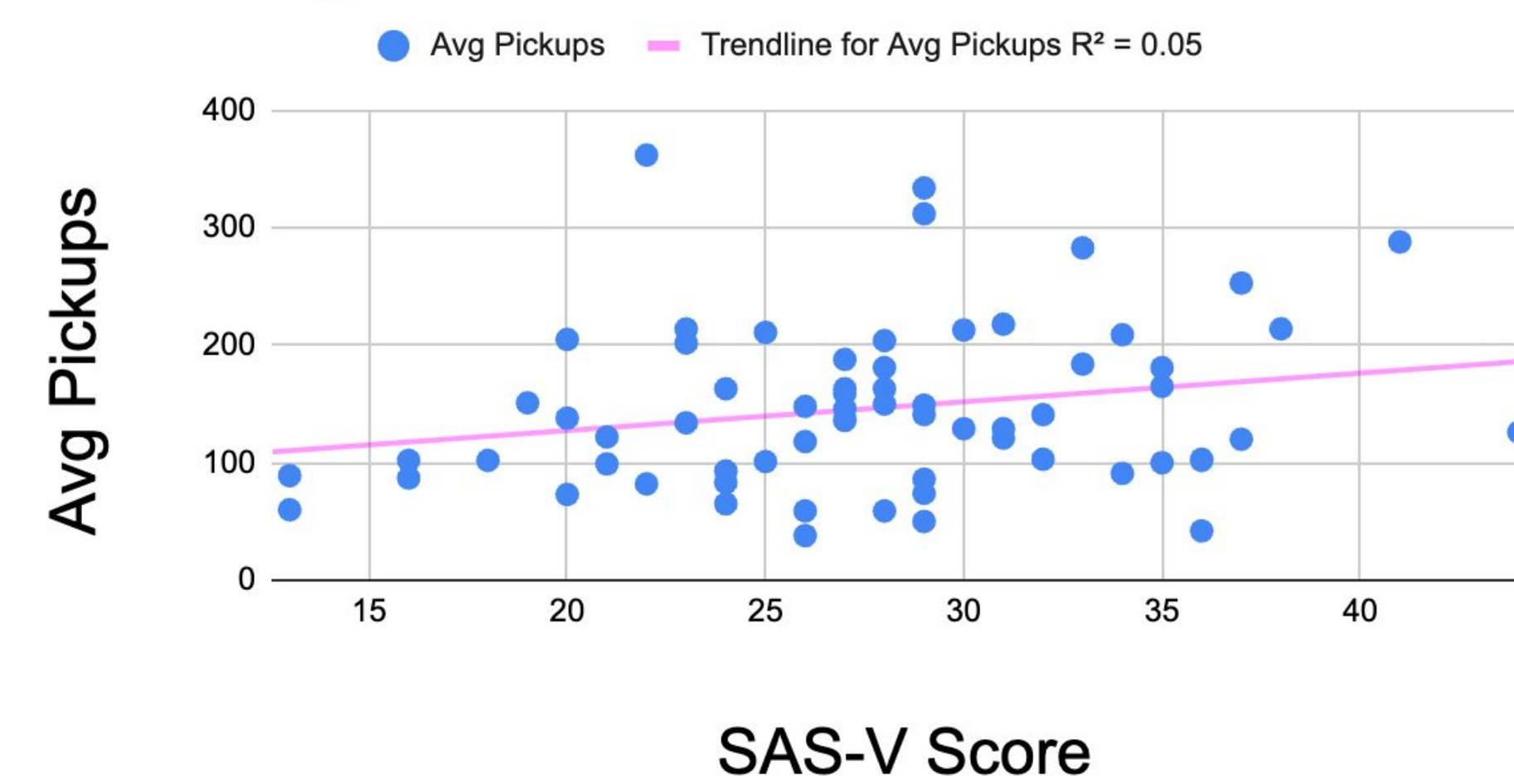
BACKGROUND

- ❖ In recent years, research has shown that the major increase in mental health issues worldwide is positively correlated with phone addiction and the overuse of screens (Saibaba, 2022).
- ❖ Research has found that impulsive personalities may be more at risk of developing phone addiction (Kim et al., 2016).
- ❖ Studies have found participants who spend two to four hours per day on their smartphones using social media exhibit higher FOMO behaviors (Saibaba, 2022).
- ❖ Strategies employed by major phone and app companies are especially detrimental to young and developing minds, leading schools to add phone-bans and the surgeon general to suggest that social media should have a warning label (U.S. Surgeon General, 2023).
- ❖ Through literature review, there have been mixed results connecting gender to impulsivity and phone usage (Saibaba, 2022; Weinstein, 2015).
- ❖ **Hypotheses:**
 - Frequent daily phone pickups will correlate with higher impulsivity, phone addiction, and FOMO levels.
 - Men will score higher on impulsivity measures, while women will score higher on FOMO.

PARTICIPANT DEMOGRAPHICS

Demographics	Frequency (%)	Total Number (n)
Male	24.3%	17
Female	75.7%	53

Average Pickups vs. SAS-V Score



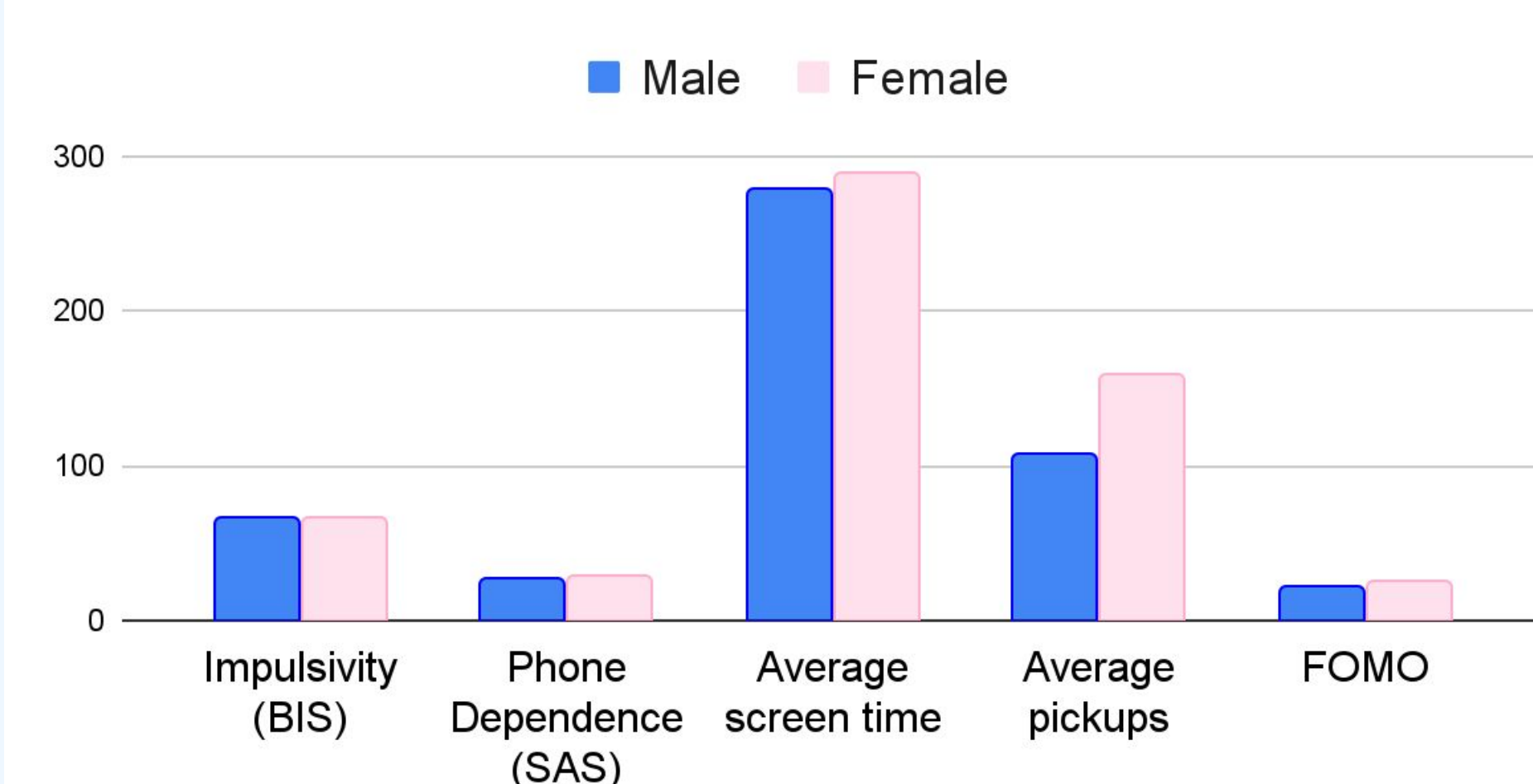
Average Pickups vs. FOMO Score



Average Pickups vs. BIS-11 Score



Male and Female



METHODS

Participants

- ❖ 70 Carroll College students between the ages of 18-24

Measurements

- ❖ Barratt Impulsivity Scale (BIS-11)
- ❖ Fear of Missing Out Scale (FoMOs)
- ❖ Smartphone Addiction Scale-Short Version (SAS-SV)

Procedure

- ❖ Participants took three surveys within a 30 minute time slot
- ❖ Participants filled out a questionnaire regarding their weekly average of screen time and pickup rate of their smartphone for the previous week
- ❖ The scores of the scales were compared with the average screen time and pickups, along with gender.

RESULTS

Interactions

- ❖ The main effect of frequency of pickups on FOMO score was significant ($F_{(1,38)} = 4.803, p = 0.035$)
- ❖ There was a significant difference between phone pickups and gender ($t = 2.546, df = 64, p = 0.013$)
 - ❖ Females have an average daily pickup rate of 157.6, while males have an average rate of 107.3
- ❖ No significant interactions between phone pickups and smartphone dependence ($p = 0.430$)
- ❖ No significant interactions between phone pickups and impulsivity ($p = 0.214$)

CONCLUSIONS

- ❖ **Our findings show that on average, the female participants had significantly more phone pickups as compared to male participants. Additionally, higher pickup rates were associated with higher rates of FOMO.**
- ❖ **We found no significant differences between impulsivity, phone dependence, average screen time, and FOMO in relation to gender.**
 - ❖ These findings differed from our prediction that the data would align with prior studies comparing gender differences, impulsivity, and phone dependence (Saibaba, 2022).
 - ❖ One limitation to address is the recording of pickup data requires participants to have an iPhone. The narrow age range of our sample is also considered a limitation. Focusing on young adults limits the ability to generalize results to a wider demographic. Lastly, our study was limited due to printing errors preventing our FOMO scale from being administered to several participants (39.3% of participants), meaning we had less data on FOMO in comparison to our other factors being studied.
 - ❖ Future research should continue to look into different attributes and personalities that may cause individuals to have higher smartphone usage.