Letters to Editor

Comments on “A Study of Magnitude and Psychological Correlates of Smartphone Use in Medical Students: A Pilot Study with a Novel Telemetric Approach”

Sir,

The telemetric approach carried out by Prasad et al. needs to be commended. The literature has shown that self-reported Internet or mobile phone use gives a lot of subjectivity and is often unreliable. Using phone-based apps, it is possible to record the total mobile phone use and to ascertain individual app usage. This method can provide a lot of objectivity and can be a useful tool to correlate such usage with psychological measures.

Although the use of a novel telemetric approach for getting objective measures on mobile phone use is appreciated, we are critical of the study methodology for certain reasons. One of our reservations is the selection of tracker applications (Callistics, App Usage Tracker, and Instant) for various phone use measurements. Google app stores consist of millions of applications; while most of them are verified, many of them are from questionable sources and highly unreliable. The study by Prasad et al. does not clarify the criteria used to choose these particular applications. It must be kept in mind that these applications were not designed for research, and unless the developers were contacted and discussions done regarding specific outcomes, the correlation of the results with various outcomes is questionable. Therefore, it would have been better had the authors clarified more details about these applications and contacted the developers with their research question and confirmed whether there were any validity and reliability issues with the applications. Besides, a pilot testing could have been carried out to ensure that there are no glitches with the applications which could hamper the results.

Second, the duration of 1 week of using these applications to assess mobile use pattern is not sufficient. Such a small period is likely to introduce bias because of multiple reasons. Awareness that such applications have been installed may have tempted students to modify their use. On the other hand, daily feedback from these tracker applications might have made students more conscious of their use, and hence it is quite likely that use patterns would have been changed over this small period of assessment. We suggest that longer periods, maybe a month or 3 months, would be more useful to assess regular use, minimizing the bias introduced due to app feedback.

However, it must be highlighted that this study has taken up an interesting approach, and telemetric applications can be a useful addendum in smartphone use research.

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Conflicts of interest
There are no conflicts of interest.

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Authors’ Response to Comments on “A Study of Magnitude and Psychological Correlates of Smartphone Use in Medical Students: A Pilot Study with a Novel Telemetric Approach”

Sir,

We thank Arya and Narasimha for their interest in and comments on our article. We accept their commendation and complement and express our gratitude for the same. Their critical comments do share some valid concerns regarding the study methodology.

We agree that the criteria used in selecting tracker apps should have been explicitly mentioned in the article. We searched Google Play Store with search strings “app tracker” and “usage tracker.” Apps developed by Indian developers which had a rating of 4.0 or higher and had been downloaded by more than 50,000 users were shortlisted. The authors (SP and DH) installed all the apps on their own Android smartphones for test-runs and after vetting them for their accuracy by (1) using a particular app for a fixed duration and checking usage log from the tracker app, (2) keeping one app running in the background and checking usage log from the tracker app, and (3) user-friendliness. We communicated with the app developers to seek their permission to use the apps for this project. We also verified that keeping the phone locked and screen deactivated does not log as usage. We agree that these apps are not intended for research purposes. We, however, included them as they were available without any in-app purchases, were small in size, were easy to use, and were fairly accurate. After installation, daily app notifications were disabled to avoid any deliberate change in usage pattern by students.

We partly agree that 1 week is far too small a period to comment upon the magnitude of someone’s smartphone usage. This was a pilot project where, apart from outcome measures, we also wanted to assess the plausibility of such an approach. It is also worth noting that with social media, smartphone usage shows spikes of escalated use on various functions, events, and occasions. For a college student, an impending examination, cultural festival, or even a birthday will suddenly lead to a spike in his or her smartphone usage. We, therefore, restricted our study to a 7-day period which did not include any major cultural, religious, social, professional, or recreational events, including examinations. We, however, agree with Arya and Narasimha that a long-term telemetric monitoring will yield more robust data reflecting patterns of use that may not be apparent in a 7-day period.

Tracker apps can go a long way in psychiatric research. Not only do they measure the magnitude of smartphone usage but also they can offer data from the phone’s gyroscope and GPS, showing a person’s degree of mobility, independence, and activity. These data will