Data Article

The connection between risk of smartphone addiction, type of smartphone use, life satisfaction, and perceived stress dataset

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A B S T R A C T

The data were collected to test the hypothesis that problematic smartphone use, defined as the risk of smartphone addiction, is positively related to the type/purpose of device use (hedonic, meaning pleasure/gratification) and perceived stress, while it is negatively related to life satisfaction. The data were collected online between October 2020 and January 2021, using Qualtrics online research platform. The participants were aged 18 years or over, had a good command of the English language. They were recruited by posting the survey link on popular social media platforms, such as Facebook, LinkedIn, and Twitter, as well as by using applications such as WhatsApp and Instagram. Participation was voluntary, anonymous, and without material compensation. In addition to demographic questions (age, gender, level of education), respondents completed three questionnaires, including the Smartphone Application-Based Addiction Questionnaire (SABAS), Satisfaction with Life Scale (SWLS), Perceived Stress Scale (PSS), and answered two questions about the proportion of time they use their smartphone to access the Internet and the proportion of time they use smartphone for hedonic purposes. In the course of the data analysis, our aim was to predict the risk of smartphone addiction by the type or

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purpose of smartphone use, perceived stress, life satisfaction, age, and gender. The reuse potential of the data lies in the possibility to examine the relationships between the hedonic use of smartphones and other variables in the dataset. Researchers could also examine differences of gender or education level in the specific components of smartphone addiction, since each item of the SABAS represents a distinct component in the 'Components model' of addiction [4]. Furthermore, since we have data on Internet access via a tablet, laptop, and desktop computer, it is possible to analyse the relationships of the dependent variables with these paths of accessing the Internet.

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Specifications Table

| Subject | Psychology |
|---------|------------|
| Specific subject area | The data are most closely related to behavioural addictions, health psychology, and human-computer interaction. |
| Type of data | Raw data in Excel spreadsheet, tabulated |
| How the data were acquired | The data were acquired via the Qualtrics online research platform (https://www.qualtrics.com), by sharing the survey link on social media (i.e., Facebook) and instant messaging smartphone applications. Data from the research platform were exported to Excel and SPSS files. All of the questions/instruments in the survey are provided as supplementary material. |
| Data format | Raw, ‘long format’ (variables in columns, cases in rows; SABAS items range from SABAS_1 to SABAS_6; SWLS items range for SWLS_1 to SWLS_5; PSS items range from PSS_1 to PSS_4; Total scores for these items are: SABAS, SWLS, and PSS). |
| Description of data collection | The data were collected between October 2020 and January 2021, using a Qualtrics-based online survey. The completion of the survey was conditional on the consent of anonymous participation in the research, by selecting the ‘yes’ button that gave access to the survey questions. To recruit a sufficient number of respondents, the link to the survey was shared on popular social media such as Facebook, LinkedIn, and Twitter, and via applications such as WhatsApp and Instagram. Participants were required to be at least 18 years old, have a good command of the English language, and be owners of a smartphone. |
| Data source location | Institution: Doctoral School of Psychology, Faculty of Education and Psychology, Eötvös Loránd University, Budapest, Hungary |
| Data accessibility | Repository name: Mendeley data; access at: https://doi.org/10.17632/zgvsr65ngv.3 Direct URL to data: https://data.mendeley.com/datasets/zgvsr65ngv/draft?a=00ce7cd4-2c16-4384-bd04-3d0d2dc37a3d |

Value of the Data

- Given that smartphone addiction is a major problem worldwide, the data were collected to contribute to understanding the relationship between the type or purpose of smartphone use and the risk of addictive behaviour.
- The data also reveal the connection between the risk of smartphone addiction and satisfaction with life, perceived stress, age, and gender. The hypotheses that life satisfaction is inversely related, while perceived stress is directly related to the risk of smartphone addiction can be tested, at least in part, by using the current data.
- Researchers interested in cyberpsychology, namely utilitarian and non-utilitarian motives for smartphone use and its relation to other constructs, as well as age and gender, could benefit from these data.
• The data also permit the investigation of the relationship of the six components in Griffith’s (2005) ‘Components model’ of addiction (salience, mood modification, tolerance, withdrawal, conflict and relapse) with life satisfaction, age, gender, and perceived stress.
• Given that the data contains information about the path of Internet access, the relationship of the dependent measures with a tablet, laptop or desktop computer path can also be evaluated.

1. Data Description

The collected data were verified after exporting them into SPSS data file. The following cases were excluded: two participants who did not give their consent (their cells were empty, but their access to the survey has appeared in the raw dataset), those who did not complete the survey (of which only two had completed more than 50% of the questions), and finally, two responses from participants whose smartphone usage to access the Internet was 0%. Items PSS_2 and PSS_3, on the Perceived Stress Scale (PSS), were reverse coded. There were no missing data points in the dataset. Finally, the averages for smartphone addiction (SABAS), perceived stress (PSS), and satisfaction with life (SWLS) were calculated. Furthermore, a new variable was calculated by transforming the hedonic use dividing it by 10. The purpose was to reduce the range of the variance and simplify the interpretation of the coefficients in the structural equation model (SEM). The reliabilities and descriptive statistics of the essential variables for the total sample, as well as the male and female subsamples, are presented in Table 1. The women had higher average scores on each of the four scales. All scales had good internal consistency, with SWLS having the best. Additionally, all four variables (SABAS, SWLS, PSS, and Hedonic use) had a fairly normal distribution (Fig. 1). The final data contains 410 cases, representing responses of 300 (73.2%) women and 100 (26.8%) men. The mean age of the respondents was \( M = 32.3 \) years, standard deviation \( SD = 10.9 \). The nationality structure of the sample is presented in Table 2, where it can be seen that most of the participants were from Serbia. The education levels were similar in both genders (Fig. 2). In both subsamples, the majority of the respondents had a university degree. The question we called SP_Use in the dataset (‘Out of 100%, in what proportion do you use a smartphone, a tablet, a desktop, or a laptop computer to access the Internet?’ Please make

| Table 1 | Reliabilities and descriptive statistics of the scales. |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **Scale**               | **\( \alpha \)** | **M**           | **SD**          | **Mdn**         | **Min**         | **Max**         | **Range**       | **Skew**        | **Kurt**        |
| Total (\( N = 410 \))   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| SABAS                   | .75             | 2.81            | 0.91            | 2.67            | 1               | 5.33            | 4.33            | 0.24            | -0.47           |
| SWLS                    | .85             | 4.59            | 1.22            | 4.80            | 1               | 7               | 6               | -0.51           | -0.28           |
| PSS                     | .74             | 2.69            | 0.75            | 2.75            | 1               | 5               | 4               | 0.21            | -0.08           |
| Hedonic use             | –               | 56.11           | 25              | 60              | 100             | 100             | -0.10           | -0.75           |                 |
| Males (\( n = 110 \))   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| SABAS                   | .74             | 2.63            | 0.88            | 2.67            | 1               | 4.67            | 3.67            | 0.12            | -0.49           |
| SWLS                    | .85             | 4.39            | 1.28            | 4.40            | 1               | 7               | 6               | -0.33           | -0.46           |
| PSS                     | .77             | 2.66            | 0.79            | 2.75            | 1               | 5               | 4               | 0.17            | -0.14           |
| Hedonic use             | –               | 52.58           | 24.97           | 50              | 0               | 100             | 100             | -0.18           | -0.82           |
| Females (\( n = 300 \)) |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| SABAS                   | .75             | 2.88            | 0.92            | 2.83            | 1               | 5.33            | 4.33            | 0.27            | -0.54           |
| SWLS                    | .85             | 4.66            | 1.19            | 4.80            | 1               | 7               | 6               | -0.57           | -0.20           |
| PSS                     | .73             | 2.70            | 0.73            | 2.75            | 1               | 4.75            | 3.75            | 0.23            | -0.10           |
| Hedonic use             | –               | 57.41           | 24.93           | 60              | 0               | 100             | 100             | -0.07           | -0.78           |

Note. \( \alpha \) = Cronbach’s alpha; \( M \) = Mean; \( SD \) = standard deviation; \( Mdn \) = Median; \( Min \) = Minimum; \( Max \) = Maximum; \( Skew \) = Skewness; \( Kurt \) = Kurtosis; SABAS = Smartphone Application-Based Addiction Scale (6 items); SWLS = Satisfaction with Life Scale (5 items); PSS = Perceived Stress Scale (4 items); Hedonic use = Hedonic use of smartphones (untransformed; one item).
sure that the percentages add up to exactly 100%!’) is shown in Fig. 3, where we focused only on the percentages of smartphone use to access the Internet, and the answers were classified into four groups: 5-25%, 26-50%, 51-75%, 76-100% of the time, where, for example, ‘100%’ means that someone accesses the Internet exclusively via a smartphone. The male and female subsamples were presented separately, as it is easier to notice the pattern in each group. This variable was used for descriptive information and was not further analysed, although it could be used, as mentioned in the previous section. The supplementary material contains all the questionnaires and demographic questions used to acquire these data.

2. Experimental Design, Materials and Methods

The data stems from a cross-sectional research design. Participants were volunteers and the data collection was completely anonymous. The instruments were selected to be valid, short, simple, and straightforward even for non-native speakers of the English language. In their choice, we also considered their suitability for online data collection. Therefore, we used three popular and psychometrically validated brief instruments (Smartphone Application-Based Addiction Scale; SABAS [6 items; [2]], Perceived Stress Scale short version; PSS [4 items; [1]], and...
Fig. 2. The levels of education of the male and female subsamples.

Fig. 3. The amount of time (out of 100%) that the Internet is accessed via smartphones, relative to other devices, within the gender subsamples (Question SP_Use).

Satisfaction with Life Scale; SWLS [5 items; [3]]) to assess the constructs. Furthermore, consenting participants were also asked about their age, gender, and the level of education, and were requested to provide their best estimate of the amount (per cent of the time) of their smartphone use for hedonic purposes (we have provided examples of each use, such as entertainment, socialization, etc.) to estimate the magnitude of their non-utilitarian smartphone use. Also, they were asked how often (per cent of the time) they use a certain device (a smartphone,
tablet, laptop, or desktop computer) to access the Internet. Upon completion of the study, the data were exported from the Qualtrics platform into an SPSS v. 27 data file. Subsequently, they were checked for completeness, reasonable (i.e., minimum accomplishable) time of completion, and whether they conformed to the criteria of participation, such as the respondent being at least 18 years old and being a smartphone user.

**Ethics Statement**

Research and therefore the data collection were approved by The Research Ethics Board of the Faculty of Education and Psychology of the ELTE Eötvös Loránd University, Budapest, Hungary (Ethical permission certificate number: 2020/306).

All participants were required to read the recruitment and information text. They were informed that participation is completely voluntary and anonymous and asked to give informed consent to participate in the study. Consent was obtained by answering a question about whether they are willing (clicking the ‘Yes’ button) or not to participate in the study (by clicking ‘No’ button). In the latter case, the survey was automatically terminated, and the questions were not accessible to the non-consenting participants.

**Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**CRediT Author Statement**

 Aleksandar Vujić: Conceptualization, Methodology, Formal analysis, Writing – original draft; Attila Szabo: Conceptualization, Data curation, Writing – review & editing.

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**Supplementary Materials**

Supplementary material associated with this article can be found in the online version at doi: 10.1016/j.dib.2021.107651.

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