

Vulnerability to Internet Addiction among Adolescents during the Pandemic May also Depend on Unanalysed Factors

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LETTER TO THE EDITOR

We were interested to read the article by Sangaran, *et al.*, on the prevalence and factors of Internet addiction (IA) during the pandemic in 535 Malaysian adolescents using a questionnaire distributed via the Internet [Sangaran, L. N. *et al.*, 2024]. Almost half of the patients were diagnosed with IA, and the risk factors for IA were male gender, internet use at home, for watching/downloading music or using social networks, inadequate parental/guardian attachment, depression, anxiety and stress [Sangaran, L. N. *et al.*, 2024]. The study is appealing, but some points should be discussed.

Electronic questionnaires have the disadvantage that it cannot be ensured that the addressee is the one who answers the questions, that it cannot be ensured that the addressee understands the questions asked and is able to answer the individual questions appropriately, that it is generally not possible to correct the answers, that answers can remain unanswered and that it cannot be ensured that the addressee gives true and not false answers.

The second point is that the addressees were able to decide for themselves whether they wanted to participate. This type of selection of study participants could be biased by the fact that those who know they are IA but do not want to make this public are not selected. It is also conceivable that those who refused to participate did not like some of the questions and therefore refused to answer. The non-responders are an important group about whom information would be interesting.

The third point is that it is unclear how missing data was dealt with. Were questionnaires that were not fully completed excluded from further analysis or were missing or insufficient responses marked

as missing or insufficient data? As missing data can strongly influence the results, it should be stated how much data was actually missing.

The fourth point is that IA depends not only on male gender, internet use at home, watching/downloading music or using social networks, inadequate attachment between parents and guardians, depression, anxiety and stress, but on many other parameters that were not included in the analysis. These include individual personality, intellect, interests, acceptance by family members, classmates and teachers, school performance, number of siblings, relationships with other family members, hobbies, the need to contribute to the functioning of the household, and whether individual interests are also represented on the Internet.

The fifth point is that the proportion of women predominates [Sangaran, L. N. *et al.*, 2024], which may also distort the results. It is possible that the male gender as a risk factor for IA results from the unequal gender distribution.

In summary, this interesting study has limitations that relativize the results and their interpretation. Removing these limitations could strengthen the conclusions and reinforce the message of the study. All open questions need to be clarified before readers can uncritically accept the conclusions of the study. Susceptibility to IA in adolescents during the pandemic may also depend on factors that were not primarily analyzed in the index study.

REFERENCES

1. Sangaran, L. N., Kadir, A. A. & Yaacob, L. H. "Prevalence and associated factors of internet addiction among adolescents during the COVID-19 pandemic in Kota Bharu,

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