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Severity of Internet gaming disorder symptoms might be related with the body mass index

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To the Editor:

Because Internet gaming disorder (IGD) is associated with both sedentary behaviour and metabolic risk, one can assume that it can also be associated with higher reported body mass index (BMI), in other words obesity [1]. Consistent with this, a recent study found that patients with IGD display higher BMI than patients with gambling disorder [2].

We conducted an online survey using a cross-sectional design in Turkish university students in Ankara, people who were in the e-mail database of a company located in Istanbul that organizes e-sports tournaments (ESL Turkey Amateur e-sport players) and Turkish gamers from gaming forums. Total of 1010 participants were included in the study.

Those with BMI of 25 or more ($n = 218$) had higher scores (17.34 ± 7.85) on the nine-item Internet Gaming Disorder Scale-Short Form (IGDS9-SF) [3,4] than the group with BMI score less than 25 ($n = 792$, 14.68 ± 6.42) ($t = -4.598$, $p < .001$).

Among those with BMI of 25 or more, 15.6% ($n = 34$) were spending more than 6 h a day in the last year for gaming, which was higher than the group with BMI less than 25 ($n = 52$, 6.6%) ($\chi^2 = 17.897$, $df = 1$, $p < .001$, odds ratio = 2.630, 95% confidence interval [CI] = 1.658–4.171). BMI was correlated with IGD (Pearson $r = 0.212$, $p < .001$) and average time daily spent playing games during the last year (Spearman $r = 0.241$, $p < .001$).

In a logistic regression (Forward) model, where BMI of 25 or more as dependent variable was taken as dependent variable, IGDS9-SF score was entered in the analysis as an independent variable, together with depression and anxiety scores measured with Beck Depression Inventory (BDI) [5,6] and Beck Anxiety Inventory (BAI) [7,8], respectively. In this analysis, IGDS9-SF score ($B = 0.52$, $SE = 0.010$, $Wald = 24.750$,

$df = 1$, $p < .001$, $OR = 1.053$, 95% $CI = 1.032$ – 1.055 , Nagelkerke $R^2 = 0.036$) was the only predictor of the presence of obesity.

As limitations, other than being a cross-sectional study, the risk factors for obesity (e.g. genetic predisposition, parental overweight, etc.) were not assessed. Additionally, although depression and anxiety were controlled, other factors such as impulse control disorders, body dissatisfaction, and diet style, which were not evaluated in the present study, might also affect the relationship between IGD and BMI. Nevertheless, at the very least, these findings suggest that to better understand patients with IGD, clinicians must also carefully evaluate additional consequences of IGD such as high BMI, which may also cause many more consequences.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- [1] Weaver JB 3rd, Mays D, Sargent Weaver S, et al. Health-risk correlates of video-game playing among adults. *Am J Prev Med.* 2009;37(4):299–305.
- [2] Mallorquí-Bagué N, Fernández-Aranda F, Lozano-Madrid M, et al. Internet gaming disorder and online gambling disorder: clinical and personality correlates. *J Behav Addict.* 2017;6(4):669–677.
- [3] Pontes HM, Griffiths MD. Measuring DSM-5 internet gaming disorder: development and validation of a

- short psychometric scale. *Comput Human Behav.* [2015](#);45:137–143.
- [4] Evren C, Dalbudak E, Topcu M, et al. Psychometric validation of the Turkish nine-item Internet Gaming Disorder Scale – Short Form (IGDS9-SF). *Psychiatry Res.* [2018](#);265:349–354.
- [5] Beck AT, Ward CH, Mendelson M, et al. An inventory for measuring depression. *Arch Gen Psychiatry.* [1961](#);4:561–571.
- [6] Hisli N. Reability and validity of beck depression inventory among university students. *Turk J Psychol.* [1989](#);7:3–13.
- [7] Beck AT, Epstein N, Brown G, et al. An inventory for measuring clinical anxiety: psychometric properties. *J Consult Clin Psychol.* [1988](#);56(6):893–897.
- [8] Ulusoy M, Erkmen H, Sahin N. Turkish version of the Beck Anxiety Inventory: psychometric properties. *J Cogn Psychother.* [1998](#);12:163–172.