The relationship between mental well-being and dysregulated gaming: A specification curve analysis of core and peripheral criteria in five gaming disorder scales

# Details

## Year

2020

## DOI

10.31234/osf.io/bvyhc

## Issued

2020

## Language

English

## Start Page

## End Page

## Authors

Ballou N.;van Rooij A.

## Type

Other

## Publisher

Center for Open Science

## Topics

Wellbeing

## Sample

"Of the participants, 220 were Dutch and the remainder were Flemish (204). The
average age was 24.2 (SD = 7.7). This included 307 males, 113 females and 4 participants
who preferred to specify another gender. The median completion time for the survey was
812 minutes." (Ballou van Rooij, 2020, p. 5)

# Abstract

Gaming disorder (also known as dysregulated gaming) has received significant research and policy attention based on concerns that certain patterns of play are associated with decreased mental well-being and/or functional impairment. In this study, we use specification curve analysis to examine analytical flexibility and the strength of the relationship between dysregulated gaming and well-being in the form of general mental health, depressive mood, and life satisfaction. Dutch and Flemish gamers (n = 424) completed five unique dysregulated gaming measures (covering nine scale variants) and three well-being measures. We find a consistent negative relationship; across 972 justifiable regression models, the median standardized regression coefficient was –0.40 (min: –0.54, max: –0.19). Data show that the majority of dysregulated gaming operationalizations converge upon highly similar estimates of well-being (i.e. have similar concurrent validity). However, variance is introduced by the choice of well-being measure; results indicate that dysregulated gaming is more strongly associated with depressive mood than with life satisfaction. Weekly gametime accounted for little to no unique variance in well-being in the sample. We argue that research on this topic should compare a broad range of functional and well-being outcomes, and work to identify a maximally parsimonious of dysregulated gaming criteria. Given somewhat minute differences between dysregulated gaming scales when used in survey-based studies and largely equivalent relationships with mental health indicators, harmonization of measurement should be a priority.

# Outcome

"In sum, we find that one can expect certain well-being outcomes—possibly those related
to hedonic well-being—to be more strongly linked with dysregulated gaming than others.
Well-being outcomes therefore cannot and should not be straightforwardly substituted for one another. Further investigations using additional aspects well-being (e.g., anxiety, self-esteem, social health) and other functional outcomes (e.g., work/academic performance, physical health) may help to identify the aspects of a person’s life that are most likely to be negatively linked to dysregulated gaming, and whether this may be moderated by personality factors"(Ballou van Rooij, 2020, p. 19)
"While we find evidence of meaningful differences in effect size depending on the
selected well-being measure, the choice of dysregulated gaming measures introduced minimal variance. With the exception of the scale based on the Open Definition of Behavioral Addiction (ODBA), results showed that the other 8 scale specifications converge upon similar associations with decreased well-being, that this is true even for shorter scales, and that it remains true even for scales with weaker model fit. Thus, we do not conclude that any of the scales used here are more predictive of decreased well-being than others." (Ballou van Rooij, 2020, p. 19)
"Contrary to expectations, the two scales assessing only core criteria differed only
slightly and non-significantly in their association with well-being from the scales assessing
both core and peripheral criteria. This finding diverges somewhat from previous results
(e.g., Ferguson et al., 2011), showing that scales including peripheral criteria as defined
here may still be meaningfully associated with decreased well-being. However, the core and
peripheral scales did not account for more variance than the core criteria scales alone. We
interpret these results to indicate that although the inclusion of peripheral criteria does not
add significant amounts of noise such that the relationship between dysregulated gaming
and well-being is obscured, neither does it add meaningfully to our ability to predict the
negative outcomes investigated here, and may simply add to participant burden." (Ballou van Rooij, 2020, p. 20)
"Overall, the inclusion or exclusion of covariates had a negligible impact on our results.
The covariate with the largest impact was gender; being male was associated with higher
general mental health and less depressive mood symptoms, but was only weakly related to
life satisfaction in our sample. This is consistent with previous research finding higher rates
of depression in women during both adolescence and adulthood (Nolen-Hoeksema, 1987;
Petersen, Sarigiani, Kennedy, 1991). Turning to motivational styles, which have received significant research attention as possible predictors of dysregulated gaming, we find that three motivations—habit, escapism, and pastime—were zero-order correlated with dysregulated gaming measures, and that two of these (escapism and pastime) were correlated with well-being as well, but in the regression models independently predicted very little of the variance in well-being."Ballou van Rooij, 2020, p. 21)