Reviewer's report

Title: Problematic computer gaming, console-gaming, and internet use among adolescents: new measurement tool and association with time use

Version: 2 Date: 2 June 2013

Reviewer: Daniel King

Reviewer's report:

1. Is the question posed original, important and well defined?
The research question posed by the authors should be easily identifiable and understood.

Could the authors explain the distinction between computer versus console gaming, as a clinical concept? This distinction seems somewhat unnecessary. However, if required, why not portable gaming or smartphone gaming also?

The argument that there is a need for a “short” measure of problem gaming is lacking in support, given that the majority of available measures have fewer than 20 items. I direct the authors to a recent review of 18 instruments summarising the current state of the art.


This paper may offer a guide for further indicators of psychometric quality for a paper on proposing a new measure of problem gaming. This is especially important given that there are already many measures in the literature, and a new instrument should clearly indicate its distinct advantages over the current ones.

Also I think this paper would be strengthened by referring to the proposed clinical diagnosis of Internet Use Disorder or Gaming Disorder (see King, D. L., & Delfabbro, P. H. (2013). Issues for DSM-5: Video-gaming disorder? Australian and New Zealand Journal of Psychiatry, 47, 20-22) or a conceptualisation by Porter et al. (2010) or Tao in his Addiction paper. The conceptualisation presented in this paper does not appear to map onto any identifiable clinical disorder, which makes it problematic for use in clinical research.

The research aim –examine the relationship between time use and these perceived problems – is not novel, and has been examined across dozens of studies. I would suggest that a more original research aim be identified.

It is useful to both the editors and authors if reviewers comment on the originality and importance of the study within the context of its field. If the research question
is unoriginal because related work has been published previously, please give references.

The authors should consult work by Douglas Gentile (particularly, his 2011 longitudinal study) which highlights how time spent gaming and pathological use are not linearly related – therefore, association with time spent is an imperfect measure of criterion validity. Additionally, work by Charlton and Danforth (2007) has shown that healthy obsession with video games often produces high levels of gaming without indicating pathology. In this way, time spent gaming as a validity marker, again, should be regarded with caution.

I am not 100% sure how this “non-pathological” measure is useful for clinicians (and I confess a degree of confusion given that the measure refers to “self-reported problems”, which sounds to me as though it would fall along a continuum indicating pathology). I think the authors could explain the advantages of this measure in greater detail.

Reviewers should ask themselves after reading the manuscript if they have learnt something new and if there is a clear conclusion from the study.

Unfortunately, I have not learnt anything significantly new from this work, however I think the data are valuable due their rigour and quality of measures. I think the authors should include more information about the measure itself (and its psychometric qualities) rather than focussing on broad observations such as prevalence and gender differences, which is less interesting. Consulting a paper published in Psychological Assessment may be helpful in identifying further material for inclusion and/or further analysis.

2. Are the data sound and well controlled?
If you feel that inappropriate controls have been used please say so, indicating the reasons for your concerns, and suggesting alternative controls where appropriate. If you feel that further experimental/clinical evidence is required to substantiate the results, please provide details.

The data are the strong point of this study. Large sample and excellent response rate. I was particularly interested in the papers’ attention to family structure and I think this could form the basis of another, new paper on a different topic related to gaming.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?
The interpretation should discuss the relevance of all the results in an unbiased manner. Are the interpretations overly positive or negative?

I think the authors do not assess validity in sufficient detail to draw strong conclusions. Given the measure is not based on any accepted model or diagnosis, it is difficult to state whether the tests are measuring a particular concept.
Conclusions drawn from the study should be valid and result directly from the data shown, with reference to other relevant work as applicable. Have the authors provided references wherever necessary?

Yes, they refer to many relevant studies in this area. Although, see my comment re: Gentile’s work.

4. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?

Yes. However, the authors should explain in greater detail how they developed the gaming measures. It is great that a pilot study was conducted, but how were the measures themselves created?

Please remark on the suitability of the methods for the study, which should be clearly described and reproducible by peers in the field.

No issue here.

If statistical analyses have been carried out, specify whether or not they need to be assessed specifically by an additional reviewer with statistical expertise.

I think this paper would benefit from a factor analysis to assess dimensionality of the instrument(s)

5. What are the strengths and weaknesses of the methods?

Please comment on any improvements that could be made to the study design to enhance the quality of the results. If any additional experiments are required, please give details.

Please see my earlier comments re: theoretical model/concepts to give the study grounding, and the need for greater assessment of validity. The study may not have sufficient measures to assess validity. However, as highlighted above, I think the authors have an impressive dataset to evaluate family structure and its relationship to gaming.

6. Can the writing, organization, tables and figures be improved?

Although the editorial team may also assess the quality of the written English, please do comment if you consider the standard is below that expected for a scientific publication.

Paragraph structure is a bit problematic. Avoid short paragraphs with underdeveloped ideas.

If the manuscript is organized in such a manner that it is illogical or not easily accessible to the reader please suggest improvements.

The paper is logical in structure.
Please provide feedback on whether the data are presented in the most appropriate manner; for example, is a table being used where a graph would give increased clarity? Are the figures of a high enough quality to be published in their present form?

7. Are there any ethical or competing interests issues you would like to raise?

The study should adhere to ethical standards of scientific/medical research and the authors should declare that they have received ethics approval and or patient consent for the study, where appropriate.

Whilst we do not expect reviewers to delve into authors' competing interests, if you are aware of any issues that you do not think have been adequately addressed, please inform the editorial office.

Not an issue

8. Reviewers are reminded of the importance of timely reviews.

If reviewers encounter or foresee any problems meeting the deadline for a report, they should contact editorial@biomedcentral.com.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.