The Internet Process Addiction Test: Validating a New Tool

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ABSTRACT
The Internet Process Addiction Test (IPAT) was created to screen for specific addictive processes facilitated by the Internet, as opposed to the theoretically difficult “Internet addiction,” which implies that one can become addicted to the Internet as a whole. 270 participants completed the Internet Addiction Test (IAT; Young, 1998), the IPAT, and the Mental Health Inventory-5 (MHI-5; Berwick et al., 1991). Results indicated that 4 of 7 IPAT subscales had good convergent validity. Factor analysis of the IPAT confirmed the uniqueness of each theoretical subscale.
INTRODUCTION

Though “Internet addiction” is a phenomenon that has warranted significant study recently (APA DSM-5 Development, 2012), some question whether or not it is possible for an individual to become addicted to something as broad as the Internet (Morahan-Martin, 2005). It seems more likely that individuals would become addicted to processes facilitated by the Internet.

LITERATURE REVIEW

Proposed criteria for Internet addiction are often adopted from Pathological Gambling and other Impulse Control Disorders, and include preoccupation with the Internet, increasing amounts of time on the Internet, unsuccessful attempts to quit, irritability when trying to cut back, staying online longer than intended, jeopardizing significant relationships to stay online, lying to cover up Internet use, and using the Internet as an escape from problems (Tao, Huang, Wang, Zhang, & Menchen, 2010).

Young (1998) created the Internet Addiction Test (IAT), a widely-used 20-item instrument that has demonstrated good reliability, to screen for Internet addiction (Chang & Law, 2008; Widyanto & McMurran, 2004). It does not address the multiple processes facilitated by the Internet, however, but rather describes the Internet as a whole as the object of addiction. For example, the first item states, “How often do you find that you stay online longer than you intended?” but does not ask what the participant was doing online. The purpose of this study is to conceptually improve upon Young’s (1998) original design and create a test that examines Internet process addictions as opposed to simply “Internet addiction.” Such a test may provide clearer data to clinicians/researchers working with Internet process addicts.

METHOD
The instrument created for this study is the Internet Process Addiction Test (IPAT). This 26-item (x7 for each subscale) instrument modifies and adds to Young’s (1998) original design. Young’s (1998) original item wording was altered so that instead of answering questions as they pertained to the Internet as a whole, participants could answer questions as they pertained to seven specific Internet processes: Surfing, Online Gaming, Social Networking, Sexual Activity, Gambling, Cell Phone Use (using one’s cell phone for internet access, email, games, or text messages), and Other (a catch-all category for areas not covered here). For example, the first item was changed to The same Likert-scale from the IAT is used for each process, except the additional response option of “Does Not Apply” is provided. Each of these processes represents a different “subscale” of the IPAT, though the subscale scores are not intended to be combined for an overall score. Each score is instead meant to be considered separately from the others.

270 self-selected participants recruited through the website of an Internet addiction recovery program as well as through online advertising completed the IPAT, the IAT, and the Mental Health Inventory – 5 (MHI-5), a 5-item instrument used to assess overall mental health functioning.

The following research questions were considered:

1. To what extent are Internet process addictions correlated with the IAT? We hypothesize that these should be significantly positively correlated as individuals completing the IAT are probably doing so with their addictive process in mind while answering items.

2. To what extent are specific Internet process addictions correlated with overall mental health? We hypothesize that there should be a significant negative correlation, as the presence of any addiction is usually comorbid with poor overall mental health.
3. To what extent would an instrument designed to measure specific Internet addiction processes be able to distinguish between the theoretical constructs of these processes? We hypothesize that a factor analysis will validate the theoretical constructs of the newly created instrument.

RESULTS

All IPAT subscales were significantly correlated with the IAT except for Gambling. The Gambling, Cell Phone, and Other subscales did not correlate with the MHI-5 and were therefore removed (Table 1).

Table 1

*Partial correlations for IAT, MHI5, and the Four IPAT Subscales*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>1. MHI 5</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2. IAT</td>
<td></td>
<td>-.49**</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Surfing</td>
<td></td>
<td>-.47**</td>
<td>.79**</td>
<td></td>
<td></td>
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<tr>
<td>4. Video gaming</td>
<td></td>
<td>-.26**</td>
<td>.43**</td>
<td>.36**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social networking</td>
<td></td>
<td>-.21**</td>
<td>.57**</td>
<td>.53**</td>
<td>.26**</td>
<td></td>
</tr>
<tr>
<td>6. Sex/pornography</td>
<td></td>
<td>-.23**</td>
<td>.32**</td>
<td>.33**</td>
<td>.33**</td>
<td>.45**</td>
</tr>
</tbody>
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Note: *Controlling for gender, age, race, ethnicity, marital status, education level, employment, and income. **Coefficients significant at p < .001 (2-tailed).

Exploratory factor analysis was conducted using principle components analysis (PCA) on the IPAT to investigate the hypothetical structure of the instrument. Using a scree-plot with eigenvalues set at 3.0, 4 factors were generated accounting for 78% of the variance. Factor 1 (26 items) accounted for 58.11% of the variance and measures video game addiction. Factor 2 (31 items) accounted for 10.19% of the variance and measures social networking addiction. Factor 3
(26 items) accounted for 5.95% of the variance and measures online sexual addiction. Factor 4 (15 items) accounted for 3.73% of the variance and measures Internet surfing addiction.

Internal consistency for each of the four subscales were measured using Cronbach’s alpha and values for each of the four subscales were .97 (surfing) and .98 (video gaming, social networking, and sex/pornography) indicating an acceptable range of reliability for the instrument. Additionally, full-scale reliability had a value of .99.

DISCUSSION

For the remaining four subscales of the IPAT, convergent validity was demonstrated through correlation with the IAT and MHI-5. In addition, these theoretical subscales were validated through factor analysis. The resulting instrument could assist clinicians/researchers with screening for Internet-facilitated process addictions. Limitations include a sample of convenience, which limits generalizability of the findings. There also may have been some ordering effects considering the IPAT was derived from the IAT. The length of the original instrument may have also led many would-be participants to discontinue. Finally, without agreed upon criteria there is no way to measure cutoff points for addiction. Future research will focus on shortening the instrument and determining cutoff points.
REFERENCES


