PSYCHOPATHOLOGY, QUALITY OF ROMANTIC RELATIONSHIPS AND PERSONALITY AS PREDICTORS OF INTERNET ADDICTION AMONG ADOLESCENT AVATAR PLAYERS ON THE INTERNET

Vassilis Stavropoulos
&
Frosso Motti - Stefanidi
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Impetus for this research project

• MMORPGs are high risk internet applications for developing Internet Addiction Disorder
• Participating in such a game has as prerequisite to be represented in the virtual world by an Avatar
• An Avatar is a virtual figure which functions as player’s idol in digital world
• It is also said to be player’s virtual personality hepling him to relate through his fantasy (Allison, 2006)
Psychopathology: Depression and internet abuse

Kim, Ryu, Chon, Yeun, Choi, Seo Nam, (2006)

Stojakovic, (2011)

Lee, Han, Yang, Daniels, Na, Kee, Renshaw, (2008)
Personality: Conscientiousness and internet abuse

Low Levels of Conscientiousness as Personality trait

Landers & Lounsbury (2006)
Attachment: Anxiety attachment and internet abuse

High Levels of Dating, Communication & Unpopularity anxiety

Anxiety

Odaci & Kalkan (2010)
Research Questions

1. Are Depression, Conscientiousness and Anxiety Attachment Type in close relationships predictive factors for Internet Addiction, among MMRPG/ Avatar players?

2. Is there a model which may explains how these three factors connect resulting to Internet Addiction, among MMORPG/ Avatar players?
Research Sample

- N= 2090 Adolescents
- Boys=1035 (49,7%)
- Girls=1048 (50,3%)
- Attica= 1919 (91,8%)
- Korinthia= 171 (8,2%)
- General High Schools= 1728 (82,7 %)
- Technical High Schools=362 (17,3 %)
- Mean Age= 16,16
**First Choice Internet Application**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>chatrooms</td>
<td>12.9</td>
</tr>
<tr>
<td>MMORPGs</td>
<td>13.0</td>
</tr>
<tr>
<td>Blogs &amp; Social Network</td>
<td>19.3</td>
</tr>
<tr>
<td>instant messengers</td>
<td>15.0</td>
</tr>
<tr>
<td>Net Pornography</td>
<td>2.7</td>
</tr>
<tr>
<td>Music &amp; Movies Download</td>
<td>16.9</td>
</tr>
<tr>
<td>Information Searching</td>
<td>13.2</td>
</tr>
<tr>
<td>Other</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
MMORPGs /Avatar Players or Not

44.2% Avatar Players or 55.8% Not
Instruments

- Internet use was assessed with:
  - *The Internet Addiction Test (Young, 1998)* Cronbach $a = 0.91$
- Depression assessed with:
  - *The Depression scale of the Symptom Check List – 90 (Derogatis,1994)* Cronbach $a = 0.80$
- Quality of romantic relationships was assessed with:
  - *Anxiety Attachment Subscale of The Experiences in Close Relationships (Fraley et al., 2000)* Cronbach $a = 0.85$
- Personality Traits- Conscientiousness were assessed with:
  - *Conscientiousness Subscale of the FFFK (Asendorpf, 1998)* Cronbach $a = 0.72$
Results

• **Question 1:** Are Depression, Conscientiousness and Anxiety Attachment Type in close relationships predictive factors for Internet Addiction, among MMRPG/ Avatar players?

• In order to answer this question we performed a multiple linear regression analysis (Stepwise Method)

• All Collinearity Diagnostic Criteria were within permissible for the analysis limits (VIF < 2, Tolerance > 0.5, Condition Index < 15)
Results

- The analysis findings supported our initial hypotheses.
- Multiple Correlation Index was $R = 0.42$
- Regression Coefficient was $R^2 = 0.18$
- Adjusted Regression Coefficient was $R^2 = 0.17$
- The slope of the regression line was significantly different from zero \( F(3, 586) = 41.96, p = 0.0000. \)
# Results

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>5.70</td>
<td>0.96</td>
<td>0.25</td>
<td>0.000</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.54</td>
<td>0.12</td>
<td>0.18</td>
<td>0.000</td>
</tr>
<tr>
<td>Anxiety Attachment</td>
<td>3.18</td>
<td>0.71</td>
<td>0.19</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Results

• **Question 2:** Is there a model which may explains how these three factors connect resulting to Internet Addiction, among MMORPG/Avatar players?

• We examined anxiety attachment and depressive behavior, as proposed mediators of the effect of conscientiousness on Internet Addiction.

• For this purpose we calculated the Sobel test for the total and specific indirect effects as well as percentile-based, bias-corrected, and bias-corrected and accelerated bootstrap confidence intervals for the indirect effects as proposed by Preacher and Hayes at 2008.*
Results seem to support our hypotheses, only through anxiety attachment in close relationships...

**Table 1**

Mediation of the Effect of Conscientiousness on Internet Addiction among Adolescent Avatar Players Through the Anxiety Attachment and Depressive Behavior

<table>
<thead>
<tr>
<th></th>
<th>Product of Coefficients</th>
<th>Bootstrapping</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Point Estimate</td>
<td>SE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect Effects</td>
<td>Anxiety</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

Note—BC, bias corrected; BCa, bias corrected and accelerated; 1,000 bootstrap samples.
To put it in shapes...

- Low Levels of Conscientiousness
- Anxious Type
- Internet Addiction Disorder
- Depressive behavior
Discussion

- Adolescent Avatar Players with depression, low levels of conscientiousness and anxious attachment type in their close relationships are at risk to develop Internet Addiction Disorder.
- Adolescent Avatar Players who have low levels of conscientiousness tend not to trust their close relationships, probably as an impact of their character they are not sentimentally invested.
- To calm their anxiety or insecurity they may relate through an Avatar.
- Low Conscientiousness does n’t lead through depression to Internet Addiction.
Thank you