



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

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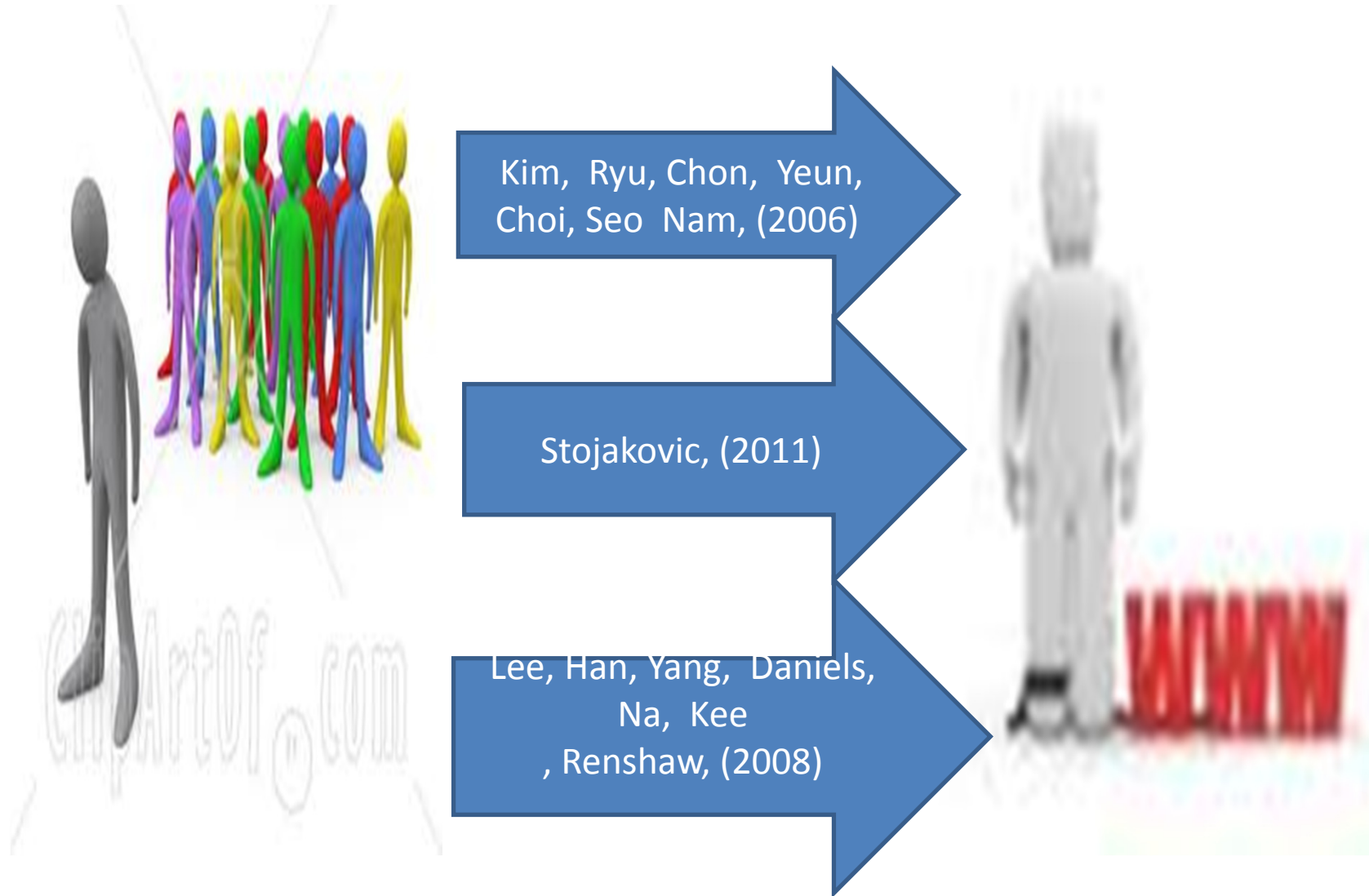


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# Impetus for this research project

- 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 helping him to relate through his fantasy (Allison, 2006)

# Psychopathology: Depression and internet abuse



# Personality: Conscientiousness and internet abuse

Low  
Levels of  
Conscienti-  
ousness as  
Perosnality  
trait

Landers & Lounsbury  
(2006)



## Attachment: Anxiety attachment and internet abuse

High  
Levels of  
Dating,  
Communication &  
Unpopularity anxiety  
Anxiety

Odacı & Kalkan (2010)





# Research Questions

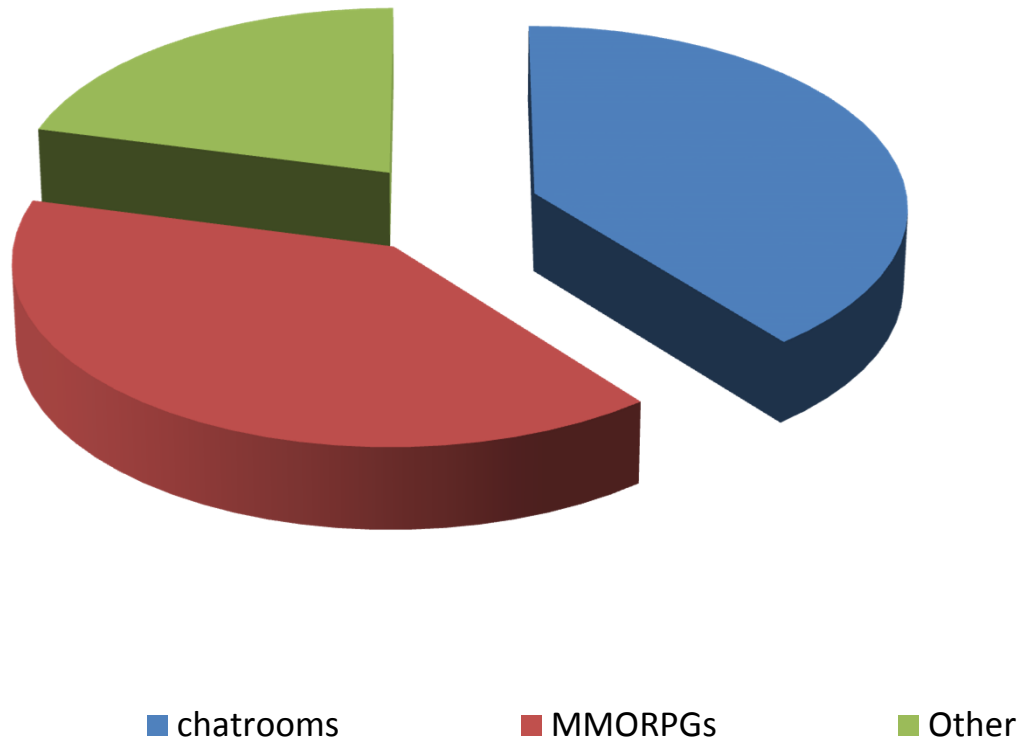
1. Are Depression, Conscientiousness and Anxiety Attachment Type in close relationships predictive factors for Internet Addiction, among MMORPG/ Avatar players?
2. Is there a model which may explains how these three factors connect resulting to Internet Addiction, among MMORPG/ Avatar players?

# 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



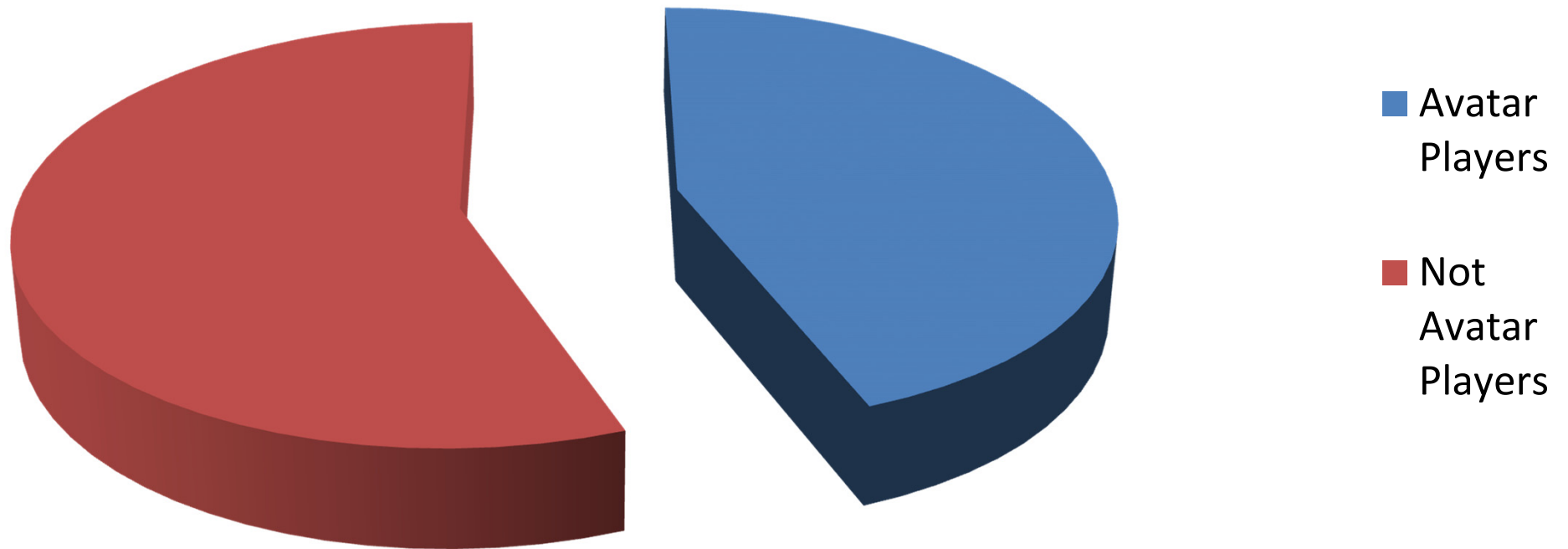
# First Choice Internet Application



	Valid Percent
chatrooms	12,9
MMORPGs	13,0
Blogs & Social Network	19,3
instant messengers	15,0
Net Pornography	2,7
Music & Movies Download	16,9
Information Searching	13,2
Other	6,9
Total	100,0

# 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  $\alpha= 0,91$***
- Depression assessed with:
- ***The Depression scale of the Symptom Check List – 90 (Derogatis, 1994) Cronbach  $\alpha= 0,80$***
- Quality of romantic relationships was assessed with:
- ***Anxiety Attachment Subscale of The Experiences in Close Relationships (Fraley et al., 2000) Cronbach  $\alpha= 0,85$***
- Personality Traits- Conscientiousness were assessed with:
- ***Conscientiousness Subscale of the FFK (Asendorpf, 1998) Cronbach  $\alpha= 0,72$***



# 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

Predictors	<i>B</i>	SE	<i>Beta</i>	<i>p</i>
Depression	5.70	0.96	0.25	0.000
Conscientiousness	-0.54	0.12	0.18	0.000
Anxiety Attachment	3.18	0.71	0.19	0.000

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# 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**

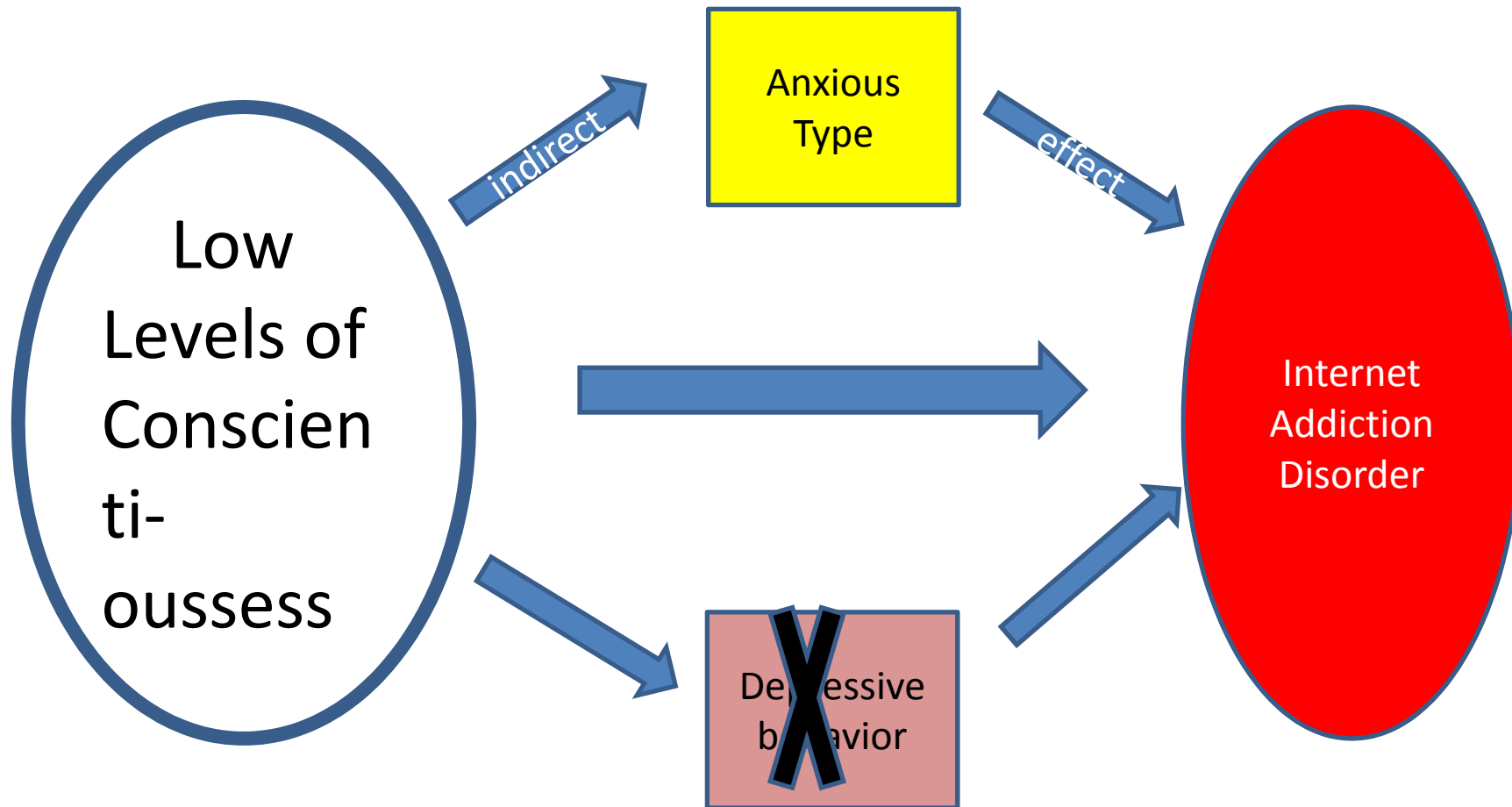
**Mediation of the Effect of Conscientiousness on Internet Addiction among Adolescent Avatar Players Through the Anxiety Attachment and Depressive Behavior**

	Product of Coefficients				Bootstrapping					
	Point Estimate	SE	Z	P	Percentile 99% CI		BC 99% CI		BCa 99% CI	
					Lower	Upper	Lower	Upper	Lower	Upper
	Indirect Effects									
Anxiety	-0.05	0.03	-1.10	.05	-0.11	-0.01	-0.12	-0.01	-0.12	-0.01
Depression	-0.05	0.03	-1.43	.15	-0.11	0.02	-0.12	.02	-0.11	0.02
Total	-0.10	0.05	-1.89	.05	.020	-0.01	- 0.20	-0.01	-0.19	-0.01

Note—BC, bias corrected; BCa, bias corrected and accelerated; 1,000 bootstrap samples.



# To put it in shapes...



# 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