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Excessive Internet use among European youth: The role of psychological, behavioral and demographic features

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excessive Internet use



- addictive potential of the medium studied and discussed since the 1990s
- *manifestation of such characteristics as excessive, obsessive, compulsive, or generally uncontrollable and problem-causing use of new digital technologies*
- pathological Internet use, problematic Internet use, Internet addiction disorder, addictive behavior on/to the Internet, excessive Internet use, or Internet dependence (Caplan & High, 2010)

excessive Internet use and adolescents



- the first generation who has grown up completely in a digital era
- spend more time online compared to adults and use the Internet regularly compared to adults
- are engaged more in intensive online applications (SNS, online gaming)
- the adolescence is formative for life-styles, misuse of the Internet can be more harmful than in later periods of life

psychological correlates



Under the addiction paradigm excessive internet use is most often explained through psychological characteristics and vulnerability of individuals

- Correlations with poor self-esteem and feelings of isolation (Young, 2010)
- Higher scores in neuroticism, psychosis, lying, emotional symptoms and conduct problems (Cao & Su's, 2007)
- Associations with high sensation seeking (Mehroof & Griffiths, 2010)
- Correlations with other problem behavior offline, i.e. substance and alcohol use (Ko et al, 2006)

behavioral correlates



- Excessive Internet users report substance and alcohol abuse more frequently (Ko et al., 2006)
- Close relationship between excessive Internet use and other types of risky online behavior, e.g. pornography use or cyberbullying (Juvonen & Gross, 2008; Vandebosch & Van Cleemput, 2009).
- Internet addiction was labeled as being a member of the Impulse control disorder family i.e. difficulties with controlling one's own behavior

demographic correlates



- most recent European studies have showed no differences between males and females in the tendency to being addicted, a gender gap still exists in some online applications. Typically, online gaming (MMOs), which is most often claimed to be the type of application with the greatest addictive potential (Wan & Chiu, 2006), is dominated by males
- Older adolescents tend to use the Internet more intensively
- The more time online the more excessive Internet use

operationalisation – behavioral addiction



- **Salience** – when the activity becomes the most important thing in an individual's life (e.g. sleep deprivation due to long hours on the web)
- **Mood change** – subjective experiences affected by the carried out activity
- **Tolerance** – the process of requiring continuously higher doses of activity to achieve the original sensations
- **Withdrawal symptoms** – negative feelings and sensations accompanying termination of the activity or impossibility of performing the required activity
- **Relapse and reinstatement** – the tendency to return to addictive behavior even after periods of relative control and after acknowledging the destructive consequences
- **Conflict** – interpersonal and/or intrapersonal conflict caused by the carried out activity (a drop in grades, avoiding school, increased conflicts with parents)

(Griffiths, 2000)

measures & sample



Excessive internet use - 5 question based on the previously introduced components by Griffiths (2000), 4-point Likert scale from 'never' to 'very often'. An excessive internet use index was created as the mean value of these five items. The Cronbach's Alpha of the scale is 0.767

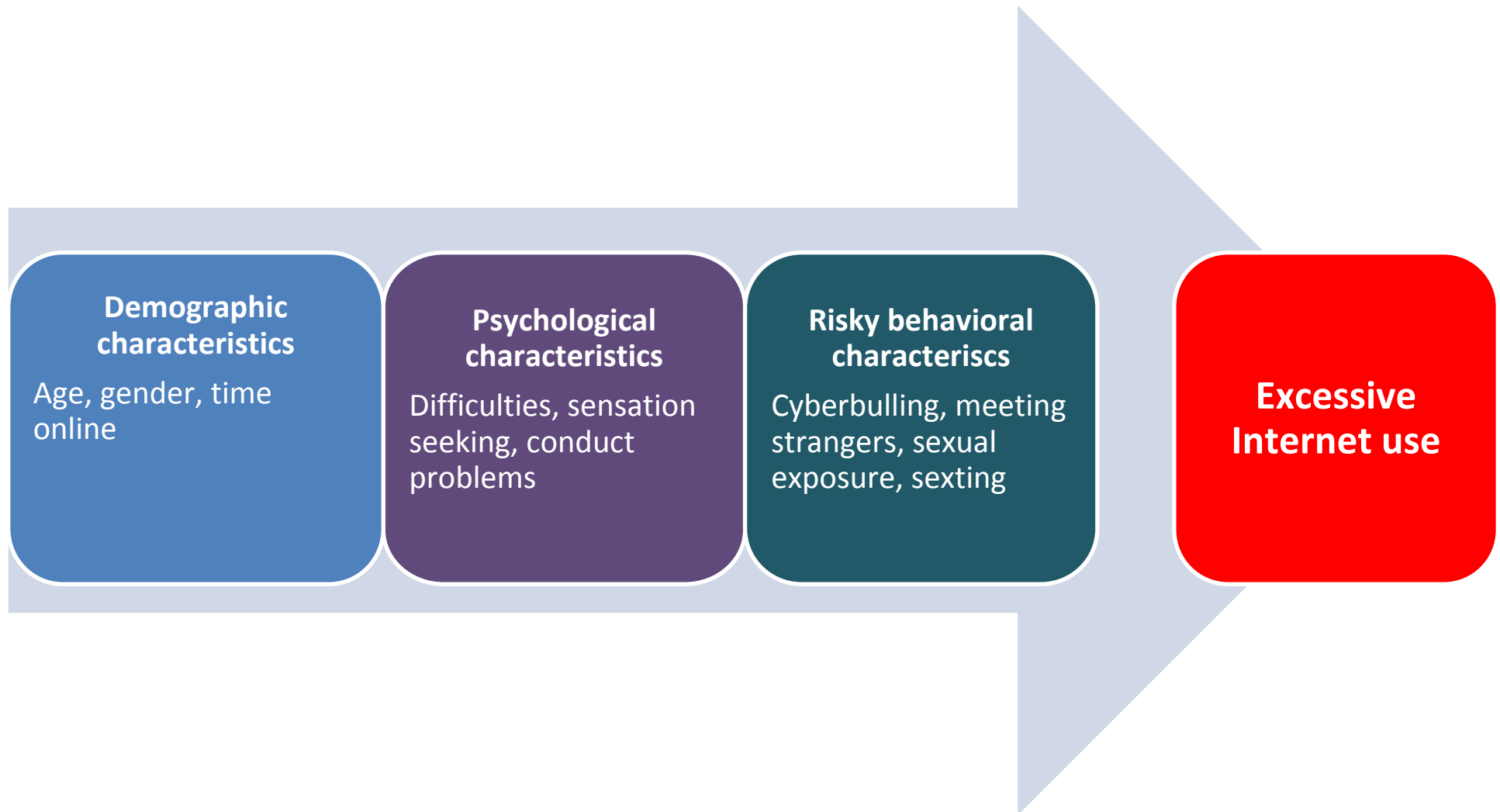
• **Emotional problems**- 5 items, e.g. *I am often unhappy, sad or tearful* **Conduct problems** – 5 items, e.g. *I get very angry and often lose my temper* **Sensation seeking** - index of 2 items

• **Risky offline behavior** – 5 items, e.g. *Had so much alcohol that I got really drunk, or Missed school lessons without my parents knowing* **Meeting online strangers offline; Cyberbullying aggressor; Sexting (sending sexual messages); Exposure to sexual explicit materials online**

• **Frequency of Internet use; age; gender**

Children from 25 European countries aged 11-16; N = 18,709

empirical model



analysis - regression



	B	β
(constant)	.145	
Gender	.016	.015
Age	.018	.060
Time online	.117	.123
Emotional problems	.213	.149
Sensation seeking	.048	.091
Conduct problems	.206	.116
Risky offline behavior	.048	.075
Sexual exposure	.031	.053
Meeting online stranger	.082	.120
Cyberbullying	.062	.049
Sexting	.055	.066

	R	R ²	ΔR^2	Std. error of the estimate
psychological variables	.349	.122	.121	.486
psychological plus behavioral variables	.440	.194	.193	.466
psychological plus behavioral plus demographic variables	.461	.213	.212	.460

power of predictors in European countries Beta >0.3 high relation,
Beta = 0.2 to 0.3 middle relation, Beta = 0.09 to 0.2 low relation,
empty cell = not significant value



	At risk %	Emotional problems	Sensation seeking	Conduct problems	Risky offline behavior	Sexual Exposure	Meeting online strangers	Cyberbullying	Sexting	Age	Gender
Austria	4.8		middle		low		low				
Belgium	2.5			low	low		low				
Bulgaria	8.9						high			low	
Cyprus	9.6	low		low	low		low			low	
Czech Rep.	7.3	low		low		low	low				
Denmark	5.6	middle	low				middle		low	low	
Estonia	9.0	low		low			low		—low		—low
Finland	4.7	middle	low				middle	low			
France	5.0	low			low		low				
Germany	6.6	low	low	low	middle	low	low		low	low	
Greece	7.5	low	low	middle		low	middle				
Hungary	11.6	low		low		low	low	middle		low	
Ireland	11.6	low		low			low			low	
Italy	4.2	low	low	middle		low					—low
Lithuania	6.4			middle		low					—middle
Netherlands	2.5	low			low		low		middle	low	
Norway	9.4			low		middle	low			middle	low
Poland	4.3			low			middle		low		
Portugal	15.9				low		low		low		
Romania	6.7			low		low					
Slovenia	4.3	middle	low		low	—low			low		
Spain	7.6	low	low	low	low		low			low	
Sweden	4.3			middle		low	low				
Turkey	7.7	low					low				
UK	12.4	low		low	low		middle	low			low

conclusion



Psychological variables, especially emotional difficulties, are the best predictors of excessive Internet use

Other very good predictors: high frequency of Internet use & tendency to meet offline people previously only known from online

On national level – psychological variables tend to be rather stable while behavioral and demographic predictors vary substantially

Problematic adoption of results acquired from different cultures

Future direction: to identify cultural differences