



Mobile Phone Addiction in Swiss adolescents

Development of a ten item screening scale

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HOW DID YOU FEEL WHEN YOU MISPLACED YOUR PHONE?



Panicked



Desperate



Sick



Relieved

- 📱 **Mobile Phone Addiction = Behavioural addiction = drug abuse**
- 📱 Adverse health symptoms are associated with Mobile Phone Addiction



- 📱 Difficult due to the lack of common diagnostic criteria
- 📱 Most frequent used questionnaire: **Mobile Phone Problematic Use Scale (MPPUS)** (Bianchi et al, 2005)

📱 Based on addiction theory



📱 27 items rated on a 10 point Likert-scale





Aim 1: Shortening of the MPPUS to the MPPUS-10

Shortening procedure: Principal component analysis (PCA)

Validation: Short scale vs. Long scale (Spearman's rank correlation), reliability (internal consistency: Cronbach's Alpha)



Behaviour:

 Strengths and Difficulties Questionnaire (SDQ)

Psychological and somatic health:





 KIDSCREEN (Health related quality of life of children and adolescents)

Statistical Analysis: multivariable linear regression models

Adjustment: Age, sex, nationality, physical activity, school level, education of the parents and alcohol consumption



HERMES-cohort (**H**Health **E**ffects **R**elated to **M**obile phone use **E** in **A**dolescent**S**)

-  412 adolescents owning a mobile phone and attending 7th - 9th grade in secondary schools in Switzerland
-  Baseline investigation took place from June 2012 until March 2013.
-  Mean age 14.0 (min = 12.1 years, max = 17.0 years)
-  253 (61.4%) girls and 159 (38.6%) male



MPPUS-10: 10 questions chosen from 5 factors

Swiss TPH



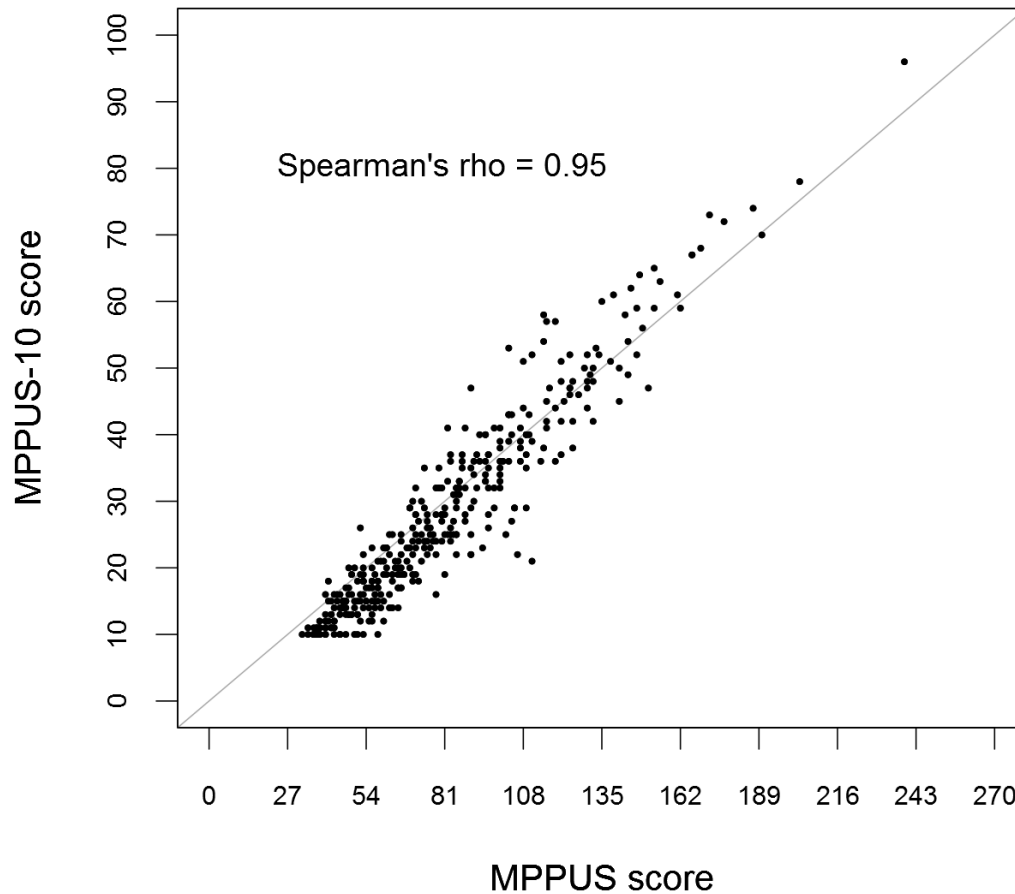
For each item, please mark the box from 1 = „not true at all“ to 10 = „completely true“. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft!

	1	2	3	4	5	6	7	8	9	10
I find myself engaged on the mobile phone for longer periods than intended	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends and family complain about my use of mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have been told that I spend too much time on my mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• NO repetitive items

MPPUS-10 works as good as the MPPUS

- 📱 Internal consistency “good to excellent” (Cronbach’s Alpha: 0.85)
- 📱 Spearman’s Rank Correlation





Kidscreen Scale	N	MPPUS-10	
		Coefficient*	95% CI
Physical Well-being	411	-0.40	(-0.96, 0.17)
Psychological Well-being	412	-0.78	(-1.35, -0.21)
Moods and Emotions	412	-1.98	(-2.61, -1.34)
Self-Perception	412	-0.98	(-1.49, -0.46)
Autonomy	409	-0.74	(-1.26, -0.22)
Parent Relations and Home Life	408	-1.34	(-1.9, -0.77)
Financial Resources	405	-1.16	(-1.65, -0.68)
Social Support and Peers	412	0.22	(-0.33, 0.77)
School Environment	407	-1.05	(-1.53, -0.57)
Social Acceptance	409	-0.24	(-0.87, 0.39)

*All measurements adjusted for age, sex, nationality, physical activity, school level, education of the parents and alcohol consumption; changes per respectively 10 points-increase of the MPPUS-10 score

SDQ: Hyperactivity, conduct problems and emotional symptoms associated with Mobile Phone Addiction



SDQ adolescents	N	MPPUS-10 score	
		coefficient*	95% CI
Total Difficulties Score	412	0.88	(0.6, 1.17)
Emotional Symptoms	412	0.20	(0.08, 0.32)
Conduct Problems	412	0.28	(0.19, 0.36)
Hyperactivity	412	0.43	(0.31, 0.56)
Peer Problems	412	-0.02	(-0.13, 0.09)
Prosocial Behaviour	412	-0.10	(-0.2, 0)
SDQ parents			
Total Difficulties Score	344	0.34	(0.02, 0.67)
Emotional Symptoms	344	0.08	(-0.04, 0.2)
Conduct Problems	344	0.17	(0.07, 0.27)
Hyperactivity	344	0.17	(0.04, 0.3)
Peer Problems	344	-0.08	(-0.19, 0.03)
Prosocial Behaviour	344	-0.04	(-0.17, 0.09)



* All measurements adjusted for age, sex, nationality, physical activity, school level, education of the parents and alcohol consumption; changes per respectively 10 points-increase of the MPPUS-10 score

- 📱 The **MPPUS-10** shows **high reliability** and high agreement with the MPPUS
- 📱 **Negative affectivity and hyperactivity** showed the strongest association with Mobile Phone Addiction
- 📱 The results promote the role of **parents and school environment** in interventions on Mobile Phone Addiction





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