

# Problematic and pathological Internet Use – Development of a short screening questionnaire

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## Background

- The treatment system reaches only a small number of individuals with problematic or pathological Internet use.
- Improvement of case detection in pro-active settings is required.
- Existing screening questionnaires are often impractical and time-consuming or not validated on grounds of clinical criteria<sup>1</sup>.
- Aim of the study was to develop an optimized short screening questionnaire for the identification of problematic and pathological Internet use.

## Methods

- Two samples (N=3,040; N=1,209) recruited via systematic pro-active screening in vocational schools and job centers
- Screening via Compulsive Internet Use Scale (CIUS)<sup>2</sup>
- Fully standardized diagnostic interview with screening-positives
- Regression analyses in both samples and in four randomly generated samples to test performance of CIUS Items
- Examination of sensitivity and specificity of the short versions compared to the original CIUS version with 14 items

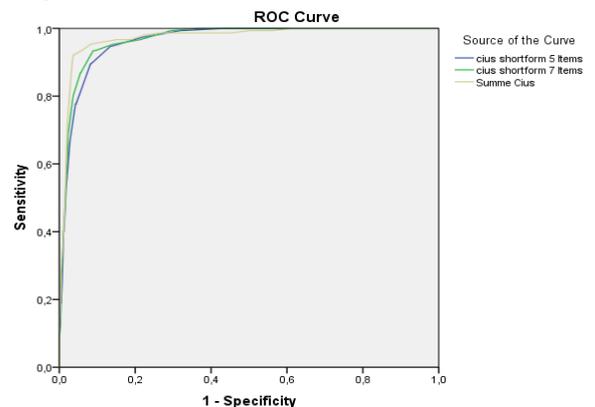
## Results

- Two short versions with 5 and 7 items could be extracted from the 14 CIUS Items.
- No significant differences between the three versions of the CIUS
- No significant differences between males and females.

Table 1: AUCs of the ROC-curves of the 5-item (CIUS-5) and the 7-item (CIUS-7) versions and the original test with Standard Errors and 95%-CI

	Total Sample	Males	Females
<b>Dependence</b>			
CIUS	.977 (.004) (.969-.986)	.975 (.007) (.961-.989)	.979 (.005) (.970-.989)
CIUS-7	.971 (.006) (.960-.983)	.969 (.009) (.952-.987)	.974 (.007) (.960-.988)
CIUS-5	.968 (.006) (.957-.979)	.968 (.008) (.953-.983)	.968 (.008) (.952-.984)
<b>At-risk use and dependence</b>			
CIUS	.973 (.006) (.962-.984)	.967 (.009) (.950-.984)	.978 (.008) (.963-.993)
CIUS-7	.968 (.005) (.959-.978)	.966 (.007) (.951-.980)	.972 (.006) (.961-.984)
CIUS-5	.963 (.005) (.954-.973)	.966 (.007) (.952-.980)	.961 (.007) (.947-.975)

Figure 1: Sensitivity and Specificity of the short versions compared to the original version



- With a Cut-off of 7 the CIUS-5 has a sensitivity of 0.95 and a specificity of 0.87.
- For higher specificity (0.96), a Cut-off of 9 can be used (sensitivity 0.78).
- Cronbach's Alpha for internal consistency was acceptable to good (0.77).

## Conclusions

- Performance of the CIUS 5-item short-screening is comparable in detecting significant symptoms of problematic and pathological Internet use to the performance of the original CIUS.
- An economic short screening with 5 items could be developed.
- These results can be used within the framework of SBI-Approaches and further research.

## References

- <sup>1</sup> Petry NM et al. (2014): An international consensus for assessing Internet gaming disorder using the new DSM-5 approach. *Addiction*, 109, 1399-1406.
- <sup>2</sup> Meerkerk et al. (2009): The Compulsive Internet Use Scale (CIUS) – some psychometric properties. *Cyberpsychology and behavior*, 12, 1-6.

Funded by the Federal Ministry of Health, Germany, Grant no. ZMV11-2515DSM234