



Problematic Internet use: is it more compulsory than rewarding or mood driven?

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Internet represents the most important product of cultural industry in the mass society, and at the same time the ultimate threatening to the intimate space of subjectivity. Nonetheless, for most of us, it is just an unavoidable part of daily ritual. A few years ago, L. Wittgenstein stated that newspaper reading has replaced the morning prayer in the modern age. Today we could state that the laptop screen has replaced the tabernacle.

Nowadays Internet dysfunctional use is a true concern. In a sample of Italian students (1), we found that 5.6% were addicted to Internet according to the Internet Addiction Scale, and more than 15%, when interviewed by the PROMIS

Questionnaire, reported they were disturbed by compulsive submissive or dominant repetitive behavior (including Internet chatting and mobile phone messaging). All these compulsions were strongly related to substance addiction, such as alcohol or drug use.

The distinction between physiological and pathological use of electronic media is, socially, a matter of quantity of time consumed and related social impairment. From the subjective viewpoint, the first signs are the psychological changes occurring in the virtual world (online disinhibition and increased risk-taking behaviors), along with the occurrence of dissociative experiences up to "loss of control".

In a recent study (2), we found that the severity measures of Internet addiction were positively correlated with perceived impairment of functioning in the family context ($r = 0.814$; $p \leq 0.001$) and

Yale-Brown Obsessive Compulsive severity score ($r = 0.771$; $p \leq 0.001$). Scores on the Dissociative Experience Scale were higher than expected (23.2 ± 1.8) and were related to higher obsessive compulsive scores ($r = 0.618$; $p \leq 0.001$), increased hours per week on the Internet ($r = 0.749$; $p \leq 0.001$), and a higher perceived impairment of functioning in the family context ($r = 0.677$; $p \leq 0.001$). From a phenomenological point of view, Internet addiction in our sample seemed to be more compulsory than rewarding or mood driven. The main attractiveness of Internet appeared to be emotional detachment.

It remains unclear whether Internet problematic use should be included among impulse control or addictive disorders. It will be useful in this respect to investigate the brain mechanisms and candidate endophenotypes (especially the number of D2 receptors in the mesocorticolimbic system and their downregulation after stimulation of the system). This could help us to develop effective strategies to prevent and treat the disorder both pharmacologically and behaviourally.





References

1. Pallanti S, Bernardi S, Quercioli L. The Shorter PROMIS Questionnaire and the Internet Addiction Scale in the assessment of multiple addictions in a high-school population: prevalence and related disability. *CNS Spectr* 2006;11:966-74.
2. Bernardi S, Pallanti S. Internet addiction: a descriptive clinical study focusing on comorbidities and dissociative symptoms. *Compr Psychiatry* 2009;50:510-6.

