Internet Addiction Could Be Warning Sign of Substance Use in Teens, Reports *Journal of Addiction Medicine*

*Heavy Internet Users Could Be Targeted for Prevention or Early Detection of Substance Abuse*

Philadelphia, Pa. (February 13, 2012) – Adolescents who have internet addictions may also be at increased risk of substance abuse, suggests a study in the March issue of *Journal of Addiction Medicine*, the official journal of the American Society of Addiction Medicine. The journal is published by Lippincott Williams & Wilkins, a part of Wolters Kluwer Health.

Teens with "pathologic Internet use" are more likely to have past or recent use of illicit substances, according to the study by Dr. Georgios D. Floros of Aristotle University of Thessaloniki and colleagues. The new research also points toward "some common personality characteristics" among adolescents who are abusing the Internet and have a history of substance use.

**Heavy Internet Users More Likely to Report Substance Use**

The researchers surveyed the entire adolescent population (aged 14 to 19) of the Greek island of Kos regarding Internet use, substance use, and personality factors. Internet addiction means not just heavy Internet use, but also consequences such as losing track of time spent online, neglecting other activities, and having difficulty cutting down on Internet use.

Of the 1,221 teens who responded to the survey, about fifteen percent were heavy Internet users while five percent had signs of Internet addiction. Thirteen percent reported past substance abuse, including a seven percent rate of substance abuse within the past month. The researchers looked for possible links between Internet use and substance use, along with potential related factors.

As the severity of excessive Internet use increased, so did the likelihood of substance abuse.
Males had higher rates of substance abuse than females. Seeking online pornography was the only specific type of Internet activity that was more frequent among teens with recent substance use.

Evidence of Common Personality Factors

Both substance use and heavy Internet use were associated with "distinct personality profiles," including higher scores for characteristics classified under the label of "psychoticism." According to a well-known personality theory (the Eysenck model), psychoticism includes traits such as nonconformity, aggressiveness, and impulsiveness.

Previous studies have linked other addictive disorders to high psychoticism scores, consistent with an "addictive personality." The relationship between Internet addiction and substance use remained significant, even after controlling for sex, age, ethnicity, and personality factors.

Internet addiction has not been formally accepted as a psychiatric diagnosis. However, it has many features in common with other addictive diseases, such as "a compulsive need for Internet use with lack of related control and disregard over the obvious adverse consequences." Some common biological factors—perhaps involving the dysfunction of dopamine and "reward pathway" of the brain—are possible as well.

Especially since excessive Internet use that interferes with daily activities is readily observable at home, the results have implications for the early identification of teens at risk of substance abuse, Dr. Floros and coauthors believe. They write, "Those adolescents eager to try any illicit substance are a prime target for early intervention programs." They even raise the possibility of promoting abuse prevention and early detection programs in the typical online venues where Internet overuse occurs—for example, online gaming sites, social networking sites, and hacking communities.

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About the American Society of Addiction Medicine

The American Society for Addiction Medicine is a professional society representing close to 3,000
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