



Internet Use and Psychiatric Morbidity In a Sample of Egyptian Adolescents

Thesis

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قَالُوا سُبْحَانَكَ لَا
عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا
إِنَّكَ أَنْتَ الْعَلِيمُ
الْحَكِيمُ

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List of abbreviation

ADHD	: Attention-Deficit/Hyperactivity Disorder
ADSL	: Asymmetric Digital Subscriber Line
CAPMAS	: Central Agency for Public Mobilization and Statistics
CBT	: Cognitive Behavioral Therapy
DSM-IV-TR	: Diagnostic and Statistical Manual of Mental Disorders (fourth edition, text revision)
FCC	: Federal Communications Commission
IAT	: Internet Addiction Test
ITU	: International Telecommunication Union
MCIT	: Ministry of Communication and Information Technology
MDFT	: Multidimensional Family Therapy
MMORPG	: Multiplayer online role-playing games
MUDS	: Multi- User Domain
NTRA	: National Telecommunication Regulatory Authority
PIU	: Pathological (problematic) Internet use
PTU	: Pathological Technology Use
RT	: Reality therapy
SSRIs	: Selective serotonin reuptake inhibitors
TENS	: Transcutaneous Electrical Nerve Stimulation
USB	: Universal Serial Bus

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INTRODUCTION

The Internet is a system of enormous technical and social complexity that was established only a few decades ago. Computer access and use among adolescents and other age groups have grown exponentially over the past decade. In Egypt, there are about 30.94 million Internet users as of April/2012, representing 37.92 % of the population (*MCIT, 2012*).

Like almost every technology that human beings have invented, the internet has profound positive and negative social consequences. The negative aspects of the Internet include Internet abuse as well as online risks such as exposure to sexually explicit material and online victimization including harassment or cyber bullying and sexual solicitation (*Katz and Rice, 2002*).

The concept of Internet pathological use or Internet addiction entered the medical dictionary in 1995 by Ivan Goldberg (*Dejoie, 2001*). Internet addiction appears to be a common disorder. Previous reports found that 1.4% to 17.9% of adolescents have Internet addiction in both Western and Eastern societies. Internet addiction has been defined as the use of the Internet to escape from negative feelings, continued use of the Internet despite the desire to stop, experience of unpleasant emotions when Internet use is impossible, thinking

about the Internet constantly, and the experience of any other conflicts or self-conflicts due to Internet use (*van den Eijnden et al., 2008*). There is evidence that Internet addiction has a negative effect on academics, family relations, physical health, and finance (*Chou et al., 2005*).

It was found that Internet-addicted subjects had various co-morbid psychiatric disorders. The most common disorders are attention-deficit/hyperactivity disorder, hostility, depression, obsessive compulsive disorder and social phobia. It is possible that there is a two-way relationship between Internet addiction and mental health. Personality traits and psychological disorders play an important role in developing Internet addiction; and Internet addiction leads to a decrease in psychosocial wellbeing (*Ceyhan, 2008*).

Importance of the Study:

- In Egypt, internet use is increasing especially among children and adolescents; however, few if any studies were carried out about it.
- Excessive use of the internet can have harmful effects both physically and psychologically.
- Internet misuse can be accompanied with psychiatric co-morbidities.
- Early detection and intervention can help to overcome and improve internet abuse.

Hypothesis:

Adolescents use the internet for different purposes including academic work, gaining information, and entertainment. On other hand, abuse of the internet can have several negative effects on academics, mental health, family relations, and finance. Internet abuse among adolescents may be associated with psychiatric co-morbidities.

THE AIM OF THIS STUDY

The aim of this study is to:

- Assess the pattern of internet use and abuse in a sample of Egyptian adolescents and detect cases of internet misuse.
- Determine the presence of psychiatric co-morbidities disorders among the studied adolescents.
- Correlate psychiatric co-morbidity with internet abuse, gender and socioeconomic factors.

ADOLESCENTS AND THE INTERNET

The Internet has exploded to become a daily part of modern life. It is leading the way into a twenty first century information society. It represents an incredible information tool and a mechanism for information dissemination. It is a medium for collaboration and interaction between individuals and their computers without regard for geographic location. It gives an opportunity for social connectedness, self-education, economic improvement, and freedom from shyness and paralyzing inhibitions. For many people, the Internet enhances their well-being and quality of life (*Aboujaoude, 2011*).

Adolescents have been particularly attracted to this unique form of technology “the Internet”. Younger individuals are greater users of the Internet. In Egypt, individuals aged from 16 to 24 years constitute around 22.5% of Egypt’s population and 54% of the country’s Internet users (*MCIT, 2010*).

More than 93% of American youth, ages 12 to 17 use the Internet (*Pew Internet, 2009*), and nearly half log on daily (*Lenhart et al., 2005*). The 2008 World Internet Project survey of 13 countries revealed that among youth 12-years to 14-years, the percentage of Internet users in this age group was 100% in the United Kingdom, 95% in Canada, and over 70% in Singapore (*Reuters, 2008*).

Adolescents may be attracted to the Internet for several reasons. Stress related variables are a reason for adolescents to get overly involved with Internet. Adolescents may have limited coping skills, and the Internet is a convenient and available way for them to try to deal with tension (*Lam et al., 2009*).

Another reason is the ability to express one's true self, which can be particularly attractive to an adolescent dealing with identity development and self concept issues (*Tosun and Lajunen, 2009*).

The perceived anonymity of the Internet is attractive for the adolescents, allowing them to engage in behaviours they might not do or have excess to in the real world (Beard, 2008). For example, adolescent may be much more willing to engage in the bullying and harassing of others, gain access to pornography, find opportunities to be rebellious to authority figures (*Dowell et al., 2009*).

Internet Use in Egypt:

The internet was first introduced in Egypt in 1993 through the Egyptian Universities Network and the Egyptian cabinet's Information and Decision Support Center. The general public gained access in 1995, but the technology did not really take off until 2002, when the government introduced a "Free Internet" initiative, whereby anyone with a telephone line and a computer could access the internet for the price of a

local call. This was followed by the Broadband initiative in 2004 aiming at lowering the cost of ADSL. On the other hand, thanks to USB modems and mobile phones connections, the number of broadband internet users has expanded in Egypt, reaching 86% of the overall number of internet users (*NTRA, 2009*).

In Egypt, there are about 29 million Internet users as of December/2011, representing 35.73% of the total population (*MCIT, 2012*). Internet use has increased dramatically in Egypt since its introduction in 1993. The number of Internet users increased by 3,691.1 % from 2000 to 2010. The annual growth rate of internet users is about 38.5% (*CAPMAS, 2011*). There were 4,595,160 Egyptian Face book users on December 31/2010, with 7.0% penetration rate. The number of Facebook users increased to 6,586,260 on March 31/11, with 8.0% penetration rate (*World Internet Users and Population Stats, 2011*).

Younger individuals are greater users of the Internet in Egypt. Individuals aged from 16 to 54 years constitute around 59% of Egypt's population and 94% of the country's Internet users. Individuals aged from 55 to 74 years constitute 8.15% of the population and only 5.8% of the country's Internet users (*MCIT, 2008*).

Males in Egypt are more likely to use the Internet than females. The gap in Internet usage between males and females