# بسم الله الرحمن الرحيم

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بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

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# Occurrence of Problematic Internet Use and its Correlates among Egyptian Adolescent Students in International Schools in Cairo

*Thesis*

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*By*

**Reem Mohamed Refaat Abd El Salam El Fiky**
*M.B.B.Ch, MSc (Psychiatry), Faculty of Medicine – Cairo University*

*Under Supervision of*

**Prof. Dr. Mona Mansour Mohamed Ali**
*Professor of Psychiatry*
*Faculty of Medicine- Ain Shams University*

**Prof. Dr. Mohamed Fekry Abd El Aziz Eissa**
*Professor of Psychiatry*
*Faculty of Medicine- Ain Shams University*

**Dr. Mahmoud Mamdouh ElHabiby**
*Assistant Professor of Psychiatry*
*Faculty of Medicine- Ain Shams University*

**Dr. Hussien Ahmed ElKholy**
*Assistant Professor of Psychiatry*
*Faculty of Medicine- Ain Shams University*

**Dr. Mahmoud Hassan Ali Morsy**
*Assistant Professor of Psychiatry*
*Faculty of Medicine- Ain Shams University*

*Faculty of Medicine*
*Ain Shams University*
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# Abstract

**Abstract**

**Background**: Internet addiction is a global phenomenon that has been a topic of great interest to researchers, clinicians, teachers, parents and community groups. **Aim:** To determine the rate of problematic internet use among a sample of Egyptian adolescent students, correlations of problematic internet use with socio- demographic data, risk factors and comorbid psychiatric disorders.

**Methods:** A sample of 248 Egyptian adolescent school students aged 11 to 18 years old, were assessed using the Young's Internet Addiction test (IAT), Internet Gaming Disorder (IGD) Scale, Social Media Disorder (SMD) Scale, Youth Self report (YSR) and The Mini International Neuropsychiatric Interview for children and adolescents (Mini KID).

**Results:** Among the study sample, 42.3% of the students suffered from mild internet addiction, 35.1% suffered from moderate internet addiction and 3.6% suffered from severe addiction, 31.5% were risky gamers and 10.5% were disordered gamers, and 34.3% had problematic social media disorder and the highest observed psychiatric disorders were Major Depressive episodes 9.3%, Generalized Anxiety disorder 7.7%, Alcohol dependence 4.4%, Attention Deficit Hyperactivity disorder 4.4%, Social phobia 4% and a higher percentage of psychiatric disorders among severe internet addiction 88.9% and among moderate addiction 70.6%, disordered gamers 92.3%, problematic social media users 60%, and a higher mean of hours spent online per day of 6.8 hours per day. **Conclusion:** Problematic Internet Use has a negative impact on Egyptian adolescent students in international schools in study sample and adds to the existing literature regarding the magnitude of internet addiction and its relationship with different psychiatric disorders.

**Keywords**: Internet addiction, Internet Gaming disorder, Social Media disorder, Adolescents, Comorbid Psychiatric disorders, Egypt.

# Introduction

In 1996, ***Kimberly Young*** proposed the problematic computer use that meets the criteria of addiction, and Internet Addiction has been defined as an impulse-control disorder which does not involve an intoxicant. Since the early 2000s, there has been a significant increase in number of studies providing empirical evidence of the existence of problematic internet use and gaming addiction (***Kuss, et al., 2017***). While Internet addiction disorder (IAD) is still not included in the latest DSM manual [DSM-5] (***Hawi, et al., 2018***), Internet Gaming Disorder (IGD) is listed in Section III, Conditions for Further Study as a disorder requiring further study ***(APA, 2013).*** Five subtypes of Internet addiction were categorized; addiction to Cybersex and internet pornography, Cyber-relationships, online stock trading or gambling, information surfing, and computer games (***Young, et al., 1999***). Other forms of internet addiction are understudy nowadays, as Social Networks Addiction that has been widely observed among children, adolescents, and adults (***Wang, 2013***). However, ***Kratzer & Hegerl (2008)*** considered it as a symptom of another disorder such as anxiety, depression or impulse control disorder- not otherwise specified.

***Beard (2005)*** recommended five diagnostic criteria required for a diagnosis of Internet addiction: (1) Is preoccupied with the Internet (thinks about previous online activity or anticipate next online session); (2) Needs to use the Internet with increased amounts of time in order to achieve satisfaction; (3) Has made unsuccessful efforts to control, cut back, or stop Internet use; (4) Is restless, moody, depressed, or irritable when attempting to cut down or stop Internet use; (5) Has stayed online longer than originally intended. Additionally, at least one of the following must be present; (6) Has jeopardized or risked the loss of a significant relationship, job, educational or career opportunity because of the Internet; (7) Has lied to family members, therapist, or others to conceal the extent of involvement with the Internet; (8) Uses the Internet as a way of

escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression).

There has also been a variety of assessment tools used in its evaluation (***Cash, et al., 2012***), e.g. Young's Internet Addiction Test ***(Young, 1999)***, the Problematic Internet Use Questionnaire [PIUQ] ***(Demetrovics, et al., 2008)*** and the Compulsive Internet Use Scale [CIUS] ***(Meerkek, et al., 2009)***.

Research results indicated that the problem is a global phenomenon. ***Cash (2012)*** reported considerable variance of prevalence rates for IAD between countries (from 0.3% to 38%), attributed to use of varied diagnostic criteria and assessment tools and highly selective samples of online surveys. While US and European surveys have recorded rates between 1.5- 8.2%, other reports elsewhere placed the rates between 6 -18.5%. The IGD prevalence ranged from 1.2 % (***Rehbein, et al., 2015***) to 9.2 % (***Hawi, et al., 2018)***, with the highest rates among older adolescences and young adults.

There are different models available for the etiological background of problematic internet use, as biological predisposition [genetic insufficient amount of serotonin/dopamine receptors, neurological vulnerabilities of dopamine release in the nucleus accumbens], special reinforcement/reward structures [cognitive-behavior , anonymity, convenience and escape (ACE), access, affordability , anonymity (Triple-A)], as well as the comprehensive model of development and maintenance of internet addiction (***Cash, et al. , 2012***).

Internet addiction is associated with various risk factors (***Kuss, et al., 2016***) including sociodemographic variables (e.g. male gender, younger age, and higher family income), Internet use variables (e.g. time spent online, using social and gaming applications), psychosocial factors (including impulsivity, neuroticism, and loneliness), and comorbid symptoms (e.g. depression, anxiety,

and psychopathology in general)**.**

There is a debate about which came first; "the Internet addiction or the co-occurring mental disorder? " Many researchers and clinicians as ***Kratzer &* Hegerl (2008)*, Kuss, et al. (2016)*** have noted the co-morbidities or Differential Diagnoses as Major Depressive, Dysthymia, hypomania, psychotic , Attention Deficit Hyperactivity, Generalized Anxiety, Social Anxiety, Compulsive buying and Binge eating disorders, in addition to personality disorders as obsessive compulsive personality, avoidant, narcissistic and borderline personality disorders and also anti-social personality traits, and behaviors of hostility or interpersonal sensitivities.

The negative impacts of IAD and IGD were identified by **Cash, et al. (2012)** that it may ruin lives by causing neurological complications, psychological disturbances, and social problems and also ***Kim, et al. (2016)*** specifying affected academic/ job achievement, sleep duration, leisure activities, time spent gaming, and money spent on gaming.

The goal of intervention should be an abstinence from problematic applications and achieving a controlled and balanced internet usage, and not a total abstinence from the internet. Various treatment options for IAD exist (***Cash, et al. , 2012***) like; psychological [motivational interviewing (MI), reality therapy (RT), acceptance and commitment therapy (ACT), cognitive-behavioral therapy (CBT) for individual or group applications] and non-psychological [sport exercise, electro acupuncture, and pharmacological as naltrexone opioid receptor antagonist, quetiapine antipsychotic, selective serotonin-reuptake inhibitors and bupropion antidepressants, mood stabilizers, and methylphenidate psycho-stimulant]. Moreover, Implementation of a multimodal treatment approach is recommended by ***Du, et al. (2010)*** and **others**.

## AIM OF THE STUDY

The present work carries the following objectives:

1) To determine the frequency and severity of problematic internet use among a sample of Egyptian adolescent students.
2) To explore the correlations of problematic internet use with the following clinical variables; i) socio- demographic information, ii) risk factors for development of Internet addiction and iii) comorbid mental illness.
3) To compare the variables with students without Internet addiction.

## HYPOTHESIS OF THE CURRENT STUDY

The existing work postulates that, Problematic Internet Use has a **negative impact** on Egyptian adolescent students in international schools in study sample regarding their psychological and physical wellbeing.

# Chapter (1)

# Understanding Adolescence