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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Prevalence of Smart Phone Addiction and its association with severity of depression and anxiety: A cross sectional study in Ain-Shams Medical Students

A thesis for partial fulfilment of Master Degree in Psychiatry

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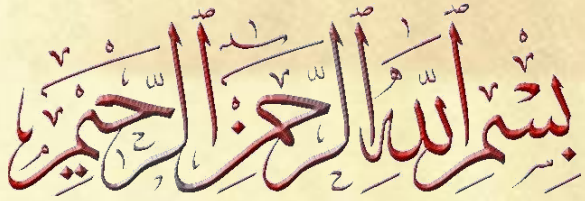

قُلْ إِنَّ صَلاَتِي وَنُسُكِي وَمَحْيَايَ
وَمَمَاتِي لِلَّهِ رَبِّ الْعَالَمِينَ *
لاَ شَرِيكَ لَهُ وَبِذَلِكَ أُمِرْتُ وَأَنَاْ
أَوَّلُ الْمُسْلِمِينَ

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List of abbreviations

ADHD	Attention Deficient Hyperactivity Disorder
AIDS	Acquired Immunodeficiency Syndrome
ASAM	American Society of Addiction Medicine
AUD	alcohol use disorders
CIUT	Compensatory Internet use theory
HDRS17	Hamilton Depression Rating Scale (17 items)
HIV	Human Immunodeficiency Virus
MDD	Major depressive disorder
MS	mean score
PMS	percentage mean score
SAS	Smartphone Addiction Scale
GHQ	General Health Questionnaire
SCID-I	Structured Clinical Interview for DSM-IV Axis I Disorders
NSSI	Non-Suicidal Self Injury

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ABSTRACT

Background: Addiction to smartphone usage is a common worldwide problem among adults, which might negatively affect their wellbeing. This study investigated the prevalence and factors associated with smartphone addiction, depression and anxiety among medical students in Ain Shams University.

Methods: This cross-sectional study was conducted in 2022 using scales for determination of the parameters assessed. Responses to the Smartphone Addiction Scale - Short version (10-items) were rated on a 6-point Likert scale, and their percentage mean score (PMS) was commuted. Responses to General Health Questionnaire (GHQ) were rated and summated, Participants who were positive in both SAS and GHQ were asked to answer SCID-1, participants who met the criteria for having depression or generalized anxiety disorder in SCID-1 will have HDRS and TMAS respectively. Hamilton Depression scale (17-items) were summated (range 0–60); their mean score (MS) was commuted and categorized. Responses to Taylor Manifest Anxiety Scale were summated and their mean score was commuted and categorized. Higher scores indicated higher levels of addiction, depression and anxiety. Factors associated with these outcomes were identified using descriptive and regression analyses. Statistical significance was set at $P < 0.05$.

Results: Accepted Results were 400/ 468,200 males and 200 females. The mean ± standard deviation of their age was 20.38± 2.06. There were 35.2 had no smart phone addiction while there were 64.8 had smart phone addiction among the participants. 36.5% had Evidence of distress and Severe psychological distress was detected in 14.2%. 27.5% of high-risk group for smartphone addiction development had major depressive disorder out of them 42.9% had Mild depression, 26.2% had Moderate depression and 29.2% had Severe depression**.** 34.8% of high-risk group for smartphone addiction development had generalized anxiety disorder and of them 51.9% had Mild anxiety symptoms, 28.8% had Moderate anxiety symptoms and 19.2% had Severe anxiety symptoms. A positive moderate correlation was found between smartphone addiction and severity of depression and anxiety**,** high statistical significance was found between severity of smartphone addiction (SAS results) and severity of depression and anxiety (HDRS and TMAS results)

Conclusions: High statistical significance was found between smartphone addiction development (SAS results) and psychological stress (GHQ results) in male and female participants. (p value in both =0.001). Positive significance and moderate positive correlation were found between smartphone addiction (SAS results) and severity of depression (HDRS results) (p value is less than 0.001) and severity of anxiety (TMAS results) (p value=0.004). smartphone addiction is a predictor for severity of depression and anxiety. Reasonable usage of smart phones is advised, especially among young adults and students who could be at higher risk of depression.

Introduction

Addiction to smartphone usage is a common problem among adults worldwide. It manifests itself in the excessive usage of their phones, while engaged in other activities such as studying, social gatherings and even sleeping **(Alhassan et al., 2018).**

The booming use of smartphones and the fact that these phones encompass many features have raised the issue of smartphone addiction. Smartphone addiction is similar in many aspects to Internet addiction. Yet, there are also some differences, such as the easy portability, real-time Internet access and easy and direct communication features of smartphones. **(Wyner et al., 2019)**

Behavioural addictions, including smartphone addiction, are generally difficult to define because they are related not only to physical, but also to social and psychological factors. The core features of behavioural addiction include the following: sustained engagement in a behaviour despite its negative effects, decreased control over participation in the behaviour, compulsive participation, and appetitive or craving urges that instantly precede engagement in the behaviour. **(Zhang et al., 2014)**

Based on the definition of Internet addiction, smartphone addiction has been defined as the overuse of smartphones to the extent that it disturbs users' daily lives. Remarkably, Addiction manifests itself in various forms such as preoccupation, tolerance, lack of control, withdrawal, mood modification, conflict, lies, excessive use and loss of interest. **(Soni et al,2017)**

Excess smartphone use can cause physical health-related problems such as blurred vision and pain in the wrists or neck. Moreover, smartphone overuse may lead to some mental or behavioural problems. It may cause maladaptive behavioural difficulties, interfere with school or work, reduce real-life social interaction, and lead to relationship disorders. **(chen et al, 2017)**

In a study conducted on smartphone users, it was found that state anxiety, trait anxiety, and depression were higher in the smartphone overuse group than in the normal use group. Poor sleep quality has emerged as a relevant public health problem in technologically advanced societies. In particular, it can be a risk factor for depression, loneliness, anxiety and sleep disturbances. **(Xie et al, 2019)**

Depressive and anxiety disorders are two main common disorders that are highly prevalent globally, as over 300 million people are estimated to suffer from depression, which is equivalent to 4.4% of the world's population. they mainly affecting young adults at their most active years. As per the Diagnostic and Statistical Manual of Mental Disorder fifth edition (DSM-5) and International Classification of Diseases eleventh edition (ICD-11), people with depression experience an unhappy mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration **(Sjoberg , 2017)**

It is speculated that not only addiction to smartphone usage can affect one's mental and behavioural status, but also that those with mood disorders are more likely to become addicted to using their smartphones. **(Hussain et al., 2017)**

Numerous tools have been utilized in literature to assess the same phenomenon, but with different terms such as excessive smart phone usage, smartphone addiction, dependency on smart phones, internet addiction and problematic mobile phone usage **(Hussain et al., 2017)**

High levels of smartphone addiction were correlated with low self-esteem, loneliness, depression and shyness. Depression is a general reflection of the psychological wellbeing that is thought to be highly correlated with addiction to smartphone usage. The majority of studies on this issue revealed that there is a relationship between these two variables; however, all these studies were conducted in specific populations. **(Yuchang et al., 2017)**

Aim of the Work

1- To determine the prevalence of smartphone addiction among medical students.
2- To determine the gender differences in the levels of smart phone addiction.
3- To find the relation between severity of smartphone addiction and severity of depression and anxiety.

Chapter One

Smartphone Addiction

Smartphone devices:

Smartphones are popular devices capable of processing more information than other phones; they include many features such as games, access to the Internet and social networks, messaging, videos, multimedia, and navigation, in addition to their use for communication. Access to the Internet is increasingly easy due to improvements in mobile technology and the prevalence of smart phones. **(Aker et al., 2017)**

A smartphone functions not only as a mobile phone but also as a computer or video player. You can easily gain access to any information that you want at any given time or place. It also has many other advantages including, but not limited to, entertainment. As a result, many people in this modern society are extremely interested in acquiring a smartphone. However, considering its mobile and internet capabilities, a smartphone also has the possibility of becoming a prevalent social problem as it signifies the characteristics of addiction such as tolerance, withdrawal, difficulty of performing daily activities, or impulse control disorders as confirmed in previous studies. (**Almunawar et al., 2018.)**

One of the reasons for this unexpected popularity of smartphones is that it makes people's lives more convenient. However, this may also pose many risks for such dependence. **(Wyner et al, 2019)**

The booming use of smartphones and the fact that these phones encompass many features have raised the issue of smartphone addiction. Smartphone addiction is similar in many aspects to Internet addiction**.**