Psychological, Social, and Cultural Aspects of Internet Addiction

Bahadir Bozoglan
IF Weinheim Institute, Germany

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Chapter 2
Internet Addiction:
A Modern Societal Problem

Shaun Joseph Smyth
Ulster University, UK

Kevin Curran
Ulster University, UK

Nigel Mc Kelvey
Letterkenny Institute of Technology, Ireland

ABSTRACT

Internet addiction is a recent phenomenon which describes a state where people become so involved in online behaviour to the detriment of other aspects of their lives. Treatment camps for young people have sprung up around in a bid to address this contemporary issue. This chapter examines the factors in Internet addiction, its definition, the complications which exist in the various diagnostic methods of successfully diagnosing Internet addiction and the criticism directed towards some of these diagnostic methods. We also examine which individuals are at risk of developing this condition. We look at positive diagnosis of the addiction and the resultant effects it has on an individual's family life, employment, social life and personal wellbeing before finally looking at possible methods and treatments that can be used in treating Internet addiction.

INTRODUCTION

While the 20th century proved to be the century which provided us with a time of great advances in both information and communication technologies the 21st century however is proving to be the age of the Internet as we enjoy access to vast amounts of information from all over the World and many different forums for communication. The Internet plays an integral part of our modern lives and as advances are continually being made in the world of information Technology (IT), it becomes substantially easier to access. As it's uses continually increase, especially among the younger generation (Akin and Iskender, 2011), the Internet means that we no longer need to go searching for information but rather information

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arrives at our homes on a computer screen via the simple click of a computer key. The Internet provides a wealth of services at our fingertips, including online gaming, shopping, gambling communication with friends, social media sites as well as an abundance of information for research purposes and it enables businesses to carry out operations in the form of Electronic Commerce (e-commerce) (Hersh,1999; Poon, 2000). These and many other services are all readily available through the very accessible Internet which can be accessed without leaving the comfort of our chair at home.

Most people make use of the Internet as a functional tool performing their day-to-day personal objectives which may include booking hotels or making airline reservations. However certain individuals experience an inability to control their Internet use resulting in distressful symptoms of psychological dependence (Brand et al. 2014). The limits however, to which many individuals are engaging with the Internet and its many functions such as a means for communication is a subject of much discussion, as the topic of Internet addiction (IA) continues to be the subject of much debate among researchers in mental health (Young, 2004). Despite the vast numbers of Internet users which exist the benefits of the Internet are reported to far outweigh the opposing consequences which result from extreme use such as Internet addiction which reportedly is not yet recognised by the ICD-10 (International classification of Diseases) or the DSM-IV which is the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (Murali and George, 2007). Internet addiction is referred to in several different ways and the terms "Internet addiction disorder (IAD)," "Problematic Internet Use (PIU)," "Excessive Internet Use," "Compulsive Internet Use," "Pathological Internet Use," and "Computer Addiction" have all been used to refer to the same notion which is that an individual gets so involved in their online use to such an extent that it leaves other areas of their lives neglected (Griffiths, 1998; Cash et al. 2012; Yan et al. 2014; Li et al. 2014).

The remainder of this chapter looks at what constitutes an addiction, the definition of Internet addiction, the complications which exist in the various diagnostic methods of successfully diagnosing Internet addiction, the criticism some of these diagnostic methods have taken and the effects of excessive Internet use by both students and employees. This chapter also highlights those individuals which are of increased risk of developing this condition including positive diagnosis of the addiction and the resultant effects it has on the individual's family life, employment, social life and personal wellbeing before finally looking at possible methods and treatments that can be employed for treating Internet addiction.

BACKGROUND

Even though the last 15 years has witnessed the number of Internet users increase by 1000% research into Internet addiction is however, still in it's infancy (Kuss and Lopez-Fernandez, 2016). With the growth of the Internet over the last two decades the number of Internet users and individuals experiencing problems as they have lost control over their Internet use and experienced negative issues in their daily lives such as problems at work or school, has risen extensively (Brand et al. 2014). There are currently over three billion Internet users worldwide which accounts for 40% of the world's population. The first billion was reached in 2005 as 2010 witnessed the second billion and the level reach three billion in 2014 as the growth in smartphones and other devices enables online and Internet connectivity (Zafar, 2016). A recent nationwide study in 11 European countries reported the occurrence of obsessive Internet users to range from 11.8% in Israel to 1.2% in Italy (Lai et al. 2013).

Internet addiction (IA) is typically defined as a condition where an individual has lost control of their Internet use and proceeds to use the Internet excessively to the point where he/she experiences problematic consequences which ultimately have a negative effect on his/her life (Kardefelt-Winther, 2014; Scimeca et al 2013). Young (1998) has been credited with devising the term Internet addiction disorder (IAD) which was used to describe excessive and problematic Internet use displaying features such as preoccupation and an inability to cut back on their usage of the Internet (Murali and George, 2007). Internet addiction refers to using the Internet for more than 38 hours per week and even though the real extent of Internet addiction is not known, the estimated figure is reported to be between 5 and 10% of all online users (Murali and George, 2007). Researchers have endeavoured to classify Internet addiction (IA) into several different categories and as Murali and George (2007) explain, this feat was achieved by Young (1999) who categorised (IA) into the following five categories: cybersexual addiction, cyberrelationship addiction, computer addiction (which includes activities such as game-playing), information overload (including uncontrollable database searching) and finally Net compulsion (which includes tasks such as gambling or shopping on the Net).

However, Griffiths (2000) argues that many of these are not Internet addicts but merely using the Internet as a medium to fuel a different addiction completely and highlights how there is a need to distinguish and differentiate between addiction to the Internet as opposed to addictions on the Internet.

Young (1996) highlights those Internet applications most utilised by both dependent and non-dependent users. The results show that applications accessed by non-dependent and dependent users differs from that of non-dependent users using aspects of the Internet such as Information protocols and the World Wide Web (W.W.W.) to enable them to gather information compared to dependent users who mainly used the two-way communication functions of the Internet such as chat rooms, e-mail, news groups and MUDs which differs from chat rooms was originally Multi-User Dungeon with later variants such as Multi-User Domain a spin-off of the old Dungeon and Dragons game which seen players take on character roles (Young, 1996) .

Table 1 displays values recorded from Young's research in 1996 for different Internet applications used by both dependent and non-dependent computer users, although with the huge changes in aspects of Internet use these figures will have changed greatly also with the introduction of newer computers, smartphones and hand-held devices etc.

Due to the relative newness of the disorder referred to as Internet addiction, there is still however very little information which clearly highlights the habit-forming nature of the Internet and the conse-

Table 1. Internet applications most utilized by dependents and non-dependents

	Type of Computer User	
Application	**Dependents**	**Non-Dependents**
Chat Rooms	35%	7%
B vMUDs	28%	5%
News Groups	15%	10%
E-mail	13%	30%
WWW	7%	25%
Information Protocols	2%	24%

(Young, 1996)

quences that are associated with it (Young, 2004). Despite this claim by Young (2004) the past decade as highlighted by Romano et al. (2013) has witnessed much debate in medical literature with the term being regarded by many as a novel psychopathology which may indeed effect many individuals. There are many varied uses of the Internet by Internet addicts but using it for gambling and pornography are common among this group of individuals resulting in a negative impact across areas of the individual's personal life and family functioning (Romano et al, 2013). There has been minimal research to explore the immediate psychological impact of exposure to the Internet on 'Internet addicts' which can act as a driver in cases of such problematic behaviour (Romano et al., 2013).

Due to a lack of research, testing and validity of the term 'Internet addiction' many critics have suggested that maladaptive, excessive or problematic Internet use (PIU) should replace the term 'Internet addiction' (Murali and George, 2007). Once the principle that people can become addicted to the Internet is accepted a further problem exists as the Internet consists of many different activities such as e-mailing, browsing information, file transferring, etc. and some Internet activities are more addictive than others (Griffiths, 1997).

DEFINING ADDICTION AND INTERNET ADDICTION

In the same manner as an alcoholic who needs to consume large amounts of alcohol to achieve satisfaction, an Internet addict routinely spends a significant amount of time online and may go to great lengths to disguise their online activity and the extent of their Internet behaviour (Young, 2004).

The Internet which was originally designed for the facilitation of research among both academic and military agencies however, prolonged use by some people has created an awareness among the mental health community which has caused much debate about Internet addiction (Young, 2004). The term Internet addiction has been described by Fu et al. (2010) as a growing psychiatric disorder although much debate exists as to this description. Regarding Internet addiction and its definition there are many health care professionals and researchers who are uncertain as to the validity in terming it a legitimate mental health disorder (Fu et al, 2010).

A well-defined definition is required for both Internet addiction in children and adolescents (Christakis, 2010). The addictive use of the Internet is a new experience which is developing in a rapid manner (Young, 1999a). The term addiction must firstly be defined before it can be decided as to whether Internet addiction is in fact a problem and truly does exist in some of today's Internet users.

Young (2004) defines an addiction as the following:

Addiction of any kind is traditionally associated with an uncontrollable urge, often accompanied by a loss of control, a preoccupation with use, and continued use despite problems the behavior causes.

The Internet is capable of and does create obvious changes in mood with almost 30% of Internet users having admitted to Internet use in a bid to reduce negative feelings or mood, hence they are using the Internet like a drug (Greenfield, 1999).

Many believe that addiction is a term which should only be applied to the ingestion of a drug (Young, 1999a; Griffiths and Pontes, 2014). Although some individuals' views have moved on to include several different behaviours which do not involve the use of an intoxicant and include compulsive behaviour such

as gambling, playing video games, overeating, exercise, love relationships as linking the term addiction solely to drugs does not prohibit its use for similar conditions which do not involve drugs. Despite the restrictive definition of addiction there is however no grounds for linking the word addiction solely to drug habits and there is no basis to assume that the most severe addictions automatically involve the use of drugs and therefore the term should not be limited solely to drug use (Alexander and Schweighofer, 1988; Griffiths and Pontes, 2014).

The American Society of Addiction Medicine (ASAM) defines addiction as a chronic brain disorder which officially proposes that for the first time ever that addiction is not limited to substance abuse only. Addictions, whether they are chemical or behavioural do share certain characteristics which include salience, compulsive use (loss of control) modifications in the individual's mood, alleviation of distress, tolerance, withdrawal and the continuation despite the negative consequences (Cash et al, 2012).

Abuse is different in that it is a milder form of an addiction which can worry and create problems for the user but the user is better equipped and has better control over their behaviour allowing them to set limits and regulate their use (Young, 2004). Addiction and abuse of the Internet will both result in consequences such as the student who is obsessively using social media sites to chat with friends loses valuable study time resulting in poor academic performance and the employee who spends too much time surfing the Internet during his/her working hours will result in poor job productivity and may lead to further actions such as job loss.

The major elements which make up an addiction include the fixation on a specific substance or activity which the individual partakes in despite continual, failed attempts to decrease it and the development of mood disturbances as a direct result of these failed attempts (Christakis, 2010). Christakis (2010) also highlights that signs of an addiction are both a greater usage than expected or wanted which can lead to possible loss of employment, jeopardizing both relationships and education or lying about actual usage. While instances such as these are present and can be seen within Internet usage there is a strong foundation that there is an issue with pathological Internet usage and the argument is no longer about the existence of Internet addiction as a condition but rather how widespread it is (Christakis, 2010).

WHAT ARE INTERNET ADDICTS ADDICTED TO?

There remains no clear and concise reason as to what Internet addicts become addicted to however many suggestions have been proposed including: the physical process of typing, the communication properties the Internet offers, information attained from a wide range of different Internet sites and the allure of applications such as e-mail, gambling, pornographic material, video games are just a few of the many possibilities to attract addicts to the Internet along with the anonymity that it also offers (Murali and George, 2007). Past studies have revealed an association with Internet addiction and psychological variables including shyness, loneliness, self-consciousness, anxiety, depression and interpersonal relations (Ahmadi et al. 2014; Weinstein et al. 2014; Zhu et al. 2015).

Individuals who experience social anxiety may compensate for these feelings of loneliness which they experience by socializing in a game or via social networking sites as they feel safer in online environments due to the sense of anonymity. Such cases where using the Internet relieves an unfulfilled, real-life problem may lead to problematic outcomes and debate as to whether this can be called Internet addiction are ongoing (Kardefelt-Winther, 2014).

The Internet is used by many shy individuals to avoid face to face interaction. They often choose to engage with others in Internet relay chat and virtual multiuser domains (Murali and George, 2007). The addictive potential offered by these massive multiplayer online roles playing games (MMORPGs) has led some people to refer to them as heroin ware (Murali and George, 2007). Christakis (2010) highlights how reality games which allow people to assume different identities or join forces with team members from all over the globe may pose the greatest risk of addiction. In these worlds, a continuous online presence is vital and going offline may often incur penalties. Such games have a large profit margin and the makers of such games have an incentive to create games which are addictive in nature.

Whether it may be playing games online or the use of the Internet as a medium for communication, there is a differentiation in those which are addicted to the Internet itself as against those using the Internet as a means of fuelling a different addiction (Griffiths, 1998).

DIFFICULTIES IN DIAGNOSING INTERNET ADDICTION

Universally the Internet is looked upon as a technical instrument which is very much encouraged thus rendering both the detection and diagnosis of addiction as difficult tasks (Young, 2004). The understanding of the criteria which differentiate a normal Internet user from a pathological Internet user (PIU) is essential before a correct diagnosis of this addiction can be achieved (Young, 2004; Young and Rodgers, 1998).

However, the concept and the definition of Internet addiction are still under debate from an academic and clinical point of view (Fu et al., 2010). There is both a sheer lack of evidence-based standardisation and clinical clear-cut clinical assessment criteria for Internet addiction and there is no aetiological explanation for the condition known as Internet addiction and it would be premature to determine the validity of Internet addiction as a condition (Fu et al., 2010).

The achievement of a successful diagnosis of individuals with Internet addiction is complex and further complicated due to the absence of an accepted set of standards for this condition in the Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition (DSM-IV) (Young, 1999a; Cash et al. 2012; Young, 1996; Young, 2004; Murali and George, 2007; Young and Rodgers,1998). Despite the lack of the inclusion of Internet addiction in the DSM-IV many other different conditions are however listed and within this list Pathological Gambling was regarded as the condition whose pathological nature closely resembles that of Internet use (Young, 1996; Young, 1999a; Christakis, 2010; Cash et al. 2012; Griffiths, 1998; Young, 2004; Young and Rodgers, 1998; Tao et al. 2010; Ko et al. 2005; Greenfield, 1999). Employing the use of the condition known as Pathological Gambling as a template for Internet addiction it has been consequently possible to define Internet addiction as an impulse- control disorder which does not feature an intoxicant (Young, 1996; Young, 1999a; Young, 2004; Young and Rodgers, 1998).

Numerous different approaches have been employed in both the assessment and evaluation of the disorder commonly known as Internet addiction and they include: Young's Internet Addiction Test, the Problematic Internet Use Questionnaire (PIUQ) and the Compulsive Internet Use Scale (CIUS) (Cash et al. 2012). Through modifications to the criteria for pathological gambling Young (1996a) managed to create a short 8 item questionnaire which could be used as a screening instrument for addictive Internet use referred to as a Diagnostic Questionnaire (DQ) (Young, 1999a; Young, 1996; Young, 2004; Liu and Luo, 2015; Zhu et al. 2015; Lai et al. 2013). The 8 item questionnaire involved questioning the individual to determine if they felt preoccupied with the Internet; used it to feel satisfied; thought

about their previous session online; anticipated their next session on-line; made unsuccessful attempts to cease or reduce Internet usage; use the Internet longer than planned; felt changes in their mood if they attempted to reduce or stop Internet usage; affected employment, education or relationship; lied as to extent of Internet usage and finally do they use the Internet as an escape from problems such as mood or feelings of depression, anxiety, guilt or helplessness (Young, 1996; Young, 1999a; Tao et al. 2010; Murali and George, 2007).

Individuals who took part in the 8-question questionnaire and replied 'yes' to five or more of the questions were termed as addicted Internet users or dependents while the remainder were non-dependents (Widyanto and Griffiths, 2007; Young, 1996; Young, 1999).

The score of five was the same measure used in pathological gambling and was viewed as a sufficient number to make the difference between either normal or compulsive addictive use of the Internet (Young, 1996; Young, 1996a, Young and Rodgers, 1998).

Young (2004) however, recommended that only nonessential computer or Internet use such as that which is neither business nor academic related should be assessed and an individual should only be classified as dependent or an addicted Internet user when they reply 'yes' to five or more of the eight questions over a time frame of 6 months.

In a bid to achieve a definition for addiction which would encompass Internet addiction Griffiths (1998) suggested that six conditions need to be fulfilled and they include salience, alteration in mood, symptoms upon withdrawal, tolerance, conflict and finally relapse. Although this method appears in theory to be both sensible and simple to use it has however lacks sufficient testing and has not been proven (Murali and George, 2007).

Internet addiction is difficult to diagnose as arguments exist regarding many of the diagnostic measures which are available as there is limited agreement on the crucial component, dimensions of Internet addiction and most instruments are self-report and are reliant on the person answering the questions on questionnaires to be honest and as people who suffer from Internet addiction are prone to lying about Internet usage a 'lie scale' which none operate is required to correct this aspect. Also, none of the methods proposed for the diagnosis of Internet addiction specify which actual Internet application (e.g. e-mail, chat rooms, pornography etc.) the Internet user is addicted to (Murali and George, 2007).

There is much controversy surrounding Internet addiction and it also remains unclear to the present time as to whether the underlying mechanisms which are responsible for the addictive behaviour are the same in the various types of Internet Addiction Disorders (IAD) (e.g. online sexual addiction, online gaming and excessive surfing) (Cash et al. 2012).

Successful diagnosis of Internet addiction is further complicated as Internet addiction does not seem to exist independently but rather it is comorbid with other psychopathological conditions (Fu et al. 2010). Internet addiction has been found to be associated with attention-deficit hyperactivity disorder (ADHD), depression symptoms, low self-esteem, impulsivity, social anxiety, shyness, suicidality and stress, (Akin and Iskender, 2011; Fu et al. 2010; Romano et al. 2013). Such findings suggest that a new label of Internet addiction may lead to an underdiagnosis of primary psychiatric disorders (Fu et al. 2010). Many health care professionals view excessive Internet use as a symptom of another disorder such as depression or anxiety and think that Internet addiction could be viewed as an impulse control disorder and used to alleviate the anxiety, stress or depression from which they suffer (Cash et al. 2012).

MEDICAL CONDITIONS AND INTERNET ADDICTION

The current research which exists about Internet addiction not only validates the presence of a condition/ disorder commonly known as 'Internet addiction', how it can be related with other social conditions such as substance abuse but it also highlights certain areas of the population which prove to be of an increased risk of being diagnosed with Internet addiction (Christakis, 2010). Such individuals include those with other psychological illnesses, including attention-deficit/hyperactivity disorder (ADHD), depression and social isolation (Christakis, 2010; Thorens et al. 2013) and these views are backed up by (Fu et al., 2010) who believe that Internet addiction should not be looked upon as a standalone psychiatric disorder but rather it does not seem to exist independently in individuals and it is more often in existence simultaneously with other psychopathological conditions.

Other conditions which Internet addiction has been known to be present with include depressive symptoms, depressive disorder, social anxiety, shyness, impulsivity, low self-esteem, anxiety disorder and even suicidality (Fu et al,2010; Wu et al. 2015). These findings highlight how labelling an individual with Internet addiction may lead to the under diagnosis of primary psychiatric disorders for which there is both proven and effective interventions available (Fu et al,2010). Since many researchers and clinicians have noticed a large variety of mental disorders co- occurring with Internet addiction disorder (IAD) it raises the debate as to whether the IAD or the co- occurring disorder came first (Cash et al,2012).

However, there is a relationship between Internet addiction and depression, anxiety and stress as the more addictive to the Internet an individual is the more stress or anxiety he or she would experience (Akin and Iskender, 2011).

BIOLOGICAL PREDISPOSITION TO INTERNET ADDICTION

Addictions are responsible for activating a combination of areas within the brain known as the 'reward centre' or the 'pleasure pathway' of the brain and when they are activated the release of dopamine is increased along with opiates and a group of other neurochemicals. Over a period, the associated receptors may become affected producing a tolerance or a need for increasing the stimulation of the reward centre to produce a 'high' leading to subsequent behavioural patterns which are required to prevent withdrawal. The use of Internet may also be responsible for the release of dopamine into the nucleus accumbens which is one of the reward structures of the brain which is specifically involved in other addictions (Cash et al. 2012).

There are underlying neurochemical changes, most likely dopamine plays a major role in Internet addiction disorder (IAD) as a neuro transmitter in the brain and occurs during any pleasurable act and have proven themselves to be habit forming on a brain behavioural level (Greenfield, 1999; Liu and Luo, 2015). Each time there is a highly pleasurable human behaviour which can be acquired without human interface (as can be achieved on the Net) there seems to be a greater risk of abuse. The ease at which purchasing of stock, gambling and online shopping via the Internet allows for both a limitless and disinhibited experience. As there is no human interaction in these areas there is a heightened risk of abusive and/or compulsive behaviour in these areas (Greenfield, 1999).

Cash et al (2012) highlights the rewarding nature of technology by quoting the following statement made by a 21-year-old male undergoing treatment for Internet addiction disorder (IAD):

I feel technology has brought so much joy into my life. No other activity relaxes me or stimulates me like technology. However, when depression hits, I tend to use technology as a way of retreating and isolating.

PATHOLOGICAL USE OF THE INTERNET

The key components of addiction include factors such as the preoccupation with a substance or behaviour with the failure of repeated attempts to reduce it, mood disturbances because of failed attempts to reduce it, a greater usage than anticipated or desired, jeopardizing employment, education or lying about actual usage (Christakis, 2010). With most of these criteria evident in Internet usage and given the strong basis to believe that there could possibly be a strong problem with Internet usage the debate is not about whether it exists but rather just how prevalent it is (Christakis, 2010). There has been considerable debate regarding both the terms and definitions of pathological Internet behaviour and many terms used include Internet abuse, Internet addiction and compulsive Internet use (Greenfield, 1999).

Despite the definition of pathological Internet use (PIU) as an impulse- control disorder which does not employ the use of an intoxicant (Young, 1996) professionals in the field of pathology provide a more restrictive definition for the classification of Internet usage, highlighting that according to the pathological concept an individual who reportedly uses the Internet for 2 to 3 hours per week is considered as a normal user whereas any individual registering 8.5 hours or above per week is classified as a pathological user (Chebbi et al. 2001). Even though 8.5 hours a week online does not seem like an excessive figure Griffiths (1998) explains that authors argued that it was indicative of problems surfacing in relatively short periods of being online.

Research has shown that specific applications seemed to play a substantial role in the development of pathological Internet use (PIU) and dependents were less likely to control their usage of highly interactive features compared to other online applications (Young and Rodgers, 1998). On-line users presenting with a more extreme danger of pathological Internet use include those individuals which tend to lead more unsociable or lonely lifestyles (Young and Rodgers, 1998). Pathological users of the Internet used it to meet new people for emotional reasons and to play interactive games and these types of people are more inclined to be more socially disinhibited (Griffiths, 1998). However, as the Internet becomes ever-present in society today it is obvious that some of the assumed ‘‘symptoms’’ of Internet addiction (IA) can be construed as the normal movement in how the younger generations entertain or communicate and as an indication of Internet use in everyday life rather than pathological behaviour (Kardefelt-Winther, 2014).

There is a possibility that a unique reinforcement exists which displays that such anonymous on-line relationships gathered using the Internet’s interactive applications have the powerful ability to provide the fulfilment of unmet real-life social needs which would otherwise not be met and would remain unfulfilled (Young and Rodgers, 1998).

The prevalence of pathological Internet usage (PIU) is high with Young and Rodgers (1998) highlighting that research on PIU among self-proclaimed ‘addicted’ users displayed many similar traits such as: they were always anticipating their next session on-line; they felt nervous when they were off-line;

they lied regarding their activity on-line; lost track of time when on-line; they believed that the Internet caused difficulties with their careers, finances and in a social capacity

Surveys to test for the effects of pathological Internet use were carried out in both the University of Texas and Bryant College in the USA and the results from both campuses documented that pathological Internet use is both problematic for both academic performance and relationship functioning (Young and Rodgers, 1998).

Family Issues of Internet Addiction

Family plays an important role in an individuals' ability to deal with stress as the family provides the main spiritual and material support system for college students especially in Eastern cultures such as China's (Yan et al. 2014). Possibly one of the most damaging effects of Internet addiction is that as unwarranted time is spent on-line the consequences are that neglect frequently occurs within the family circle. Time spent on-line takes the place of social activities, family social life and interests and ultimately disrupting family relationships (Murali and George, 2007; Griffiths, 1998; Akin and Iskender, 2011; Young, 1999a). The occurrence of Internet addiction in adolescents in Asia was reported to be 13.8% in Taiwan, South Korea reported to be 10.7%, Hong Kong a reported 6.7% with China reporting 2.4% (Lai et al. 2013)

Online affairs are highlighted as one of the most common consequences associated with the Internet and Internet addiction (Young, 2004). The problem experienced because of online affairs is that the addicted member of the relationship will isolate himself or herself and refuse to engage in activities such as going out for dinner or attending sports events which they previously enjoyed together as a couple (Young,1999a). Cyber sexual infidelity is reported to be a common reason for couples looking for advice or marriage counselling and it is the most upsetting aspect of Internet-based sexual infidelity as it violates both the marital and family space (Greenfield,1999). Individuals develop online relationships which over time overshadow the time spent with real people to the point where matrimonial lawyers have witnessed a significant increase in divorce cases solely from information of such cyberaffairs (Young, 1999a). Such cyberaffairs are defined as romantic or sexual relationships which originate through contact online and continue mainly by electronic discussions via e-mails, chat rooms or interactive games (Young, 2004).

Using these virtual groups strangers from all over the world can meet up instantly 24 hours a day and 7 days a week and it is a breeding ground for the development of online affairs causing problems in marriages that were once solid and cyberaffairs have caused the destruction of many marriages. Serious relationship problems in 53% of Internet addicts surveyed resulted in marital discord, separation and in some cases even led to divorce proceedings. explains how online affairs differ dynamically from real-life affairs with the potential to be more seductive and due to the global nature of the Internet online affairs can be more glamorous than the partner they already have in their day to day life enabling users to interact with other individuals without the fear of rejection (Watson, 2015; Young, 2004).

Electronic communication can accelerate the intimacy and people are more open and honest online allowing intimacy which may take months or years to create offline to be created in a matter of weeks or days in an online relationship. Seemingly harmless online relationships can easily progress to secret phone calls, letters and meeting offline and can see what was once an online affair ultimately turn what was a happy marriage or relationship into a possible divorce (Young, 2004). Unlike affairs which happen outside the home the online affair has the possibility to start in the marital home while the unsuspecting spouse has been sitting in the next room (Young, 2004). The question is there a limit to how much

time spent at a computer is too much and how can a wife or husband know if their partner is having an online affair while at the computer.

The following indications are possible signals of an online affair:

- **Altered Sleeping Patterns:** The change in an individual's sleeping habits is one of the first warning signs of an online affair as chat rooms and other such meeting places which are used for cybersex do not heat up until late at night so the unfaithful person in the relationship may start staying up later to be part of the action (Young, 2004). The unfaithful partner starts to go to bed in the early hours of the morning or the unfaithful person in the relationship suspected of having an online affair may start getting up 1 or 2 hours earlier each morning to use the computer and have an e-mail exchange with their new online romantic partner before they go to work. Thomas (2014) describes how the Internet makes cybersex a particularly exciting type of sex addiction due to its accessibility, affordability and the anonymity that it offers and is often referred to as the Triple- A Engine as a result.
- **Demanding Privacy:** When a person starts, an affair be it online or offline the usually go to extreme lengths to hide this from their partner and the same is true for cyberaffairs as they lead to the greater need for privacy and secrecy for their use of their computer. The person having a cyberaffair will generally move the computer from the view of others in the household, especially their partner and may even change the password of the computer or laptop they are using or hide their online activities in a bid to keep their affair from their partner. The person having the affair will react with anger or be defensive in a bid to hide his or her online activity (Young 2004).
- **Ignoring Their Daily Responsibilities:** As the Internet user increases their time spent online this results in responsibilities within their day to day lives suffering. This is not automatically a sign of a cyberaffair. The person spending more time at the office than usual or neglecting housework that is normally done or tasks such as mowing the lawn may indicate that somebody else is competing for the suspected person's attention and time as the novelty and excitement that are created by an online affair and the husband or wife does not feel the same sense of responsibility to household tasks as they felt before the computer came into his or her life.
- **Evidence of Lying:** The partner having the affair on the Internet tends to lie about the length of time length of time their Internet sessions last (Young, 2004; Fu et al. 2010; Young 1999a; Young 1996). The person involved in the cyberaffair will lie about Internet charges and hide bills such as credit card bills to conceal their Internet usage (Young, 2004; Young, 1999a; Young 1996). Such behaviours create distrust between the couple in a relationship and over time this will damage the quality of what was once a happy relationship (Young, 2004) Those involved in online affairs find themselves telling bigger lies in a bid to conceal the existence of their online relationship (Young, 2004). Such behaviours create distrust in what was once a stable relationship (Young, 1996) which finds both partners arguing about computer usage and trust in the relationship is broken (Young, 2004).
- **Change in Personality:** The mood in the person engaging in the Internet affair changes and they may become withdrawn and cold in what was once a warm and happy relationship. If a person is questioned about their Internet usage they often respond in denial and sometimes consciously or not they shift the blame to the person not engaging in the cyberaffair (Young,2004).

- **Lose Interest in Sex:** In some cases, online affairs can lead to either phone sex or meetings in real-life. The process of sharing secrets of sexual fantasies online can change an individual's pattern of sexual interest with their real-life partner (Young, 2004). Those who engage in online affairs are less enthusiastic to their real-life partner.
- **Reduced Investment in the Relationship:** Individuals who pursue online affairs have less energy to put into their real-life relationship with their partner. The excitement of going on vacation together is not what it once was and they avoid making any long-range plans with their real-life partner.

The discovery that you have an unfaithful partner is difficult especially as it is with someone that your unfaithful partner has not actually met in real-life. In many case the faithful partner will try to take charge of the situation by not disclosing it to close friends and family. Through sheer frustration and jealousy many faithful partners try to control the situation by controlling the partner's time spent online, taking measures such as changing passwords on online devices within the house and in severe cases cancelling the Internet provider to the home or dismantling the computer itself to rebuild the relationship they once had with their partner (Young, 2004) with the ignored or unloved partners of Internet addicts often referred to as a 'cyberwidow' (Murali and George, 2007).

Student Internet Abuse

The Internet is an essential tool providing a wealth of information and enabling lectures to be viewed online to view at our leisure. It enables research to be carried out on many different devices by students and teaching staff alike and has been advertised as an important educational tool which has led to the integration by many schools of Internet services within the classroom environment. Even though the Internet is an ideal tool for carrying out research both psychologists and educators alike have been aware of the negative impacts which accompany this tool, especially the over use or misuse of the Internet (Murali & George, 2007; Young, 1996). One survey carried out revealed that a total of 86% of teachers, librarians and computer coordinators that responded believed that the usage of the Internet by children does not improve the child's performance arguing that information on the Internet is too disorganised and it is unrelated to the school curriculum to assist students and the Internet can serve as a distraction (Barber, 1997).

In a study by Young (1998), 58% of students suffered from a result of poor study habits and poor grades or even failed school because of excessive Internet use. Many students are unable to control their Internet usage and as a result there has been a reported decline in their study habits due to extreme Internet use resulting in a substantial decline in student grades, class attendance and in severe cases students being placed on probation due to their excessive Internet use (Young, 1996a).

Colleges are now beginning to recognise the possible influence of Internet use as counsellors at the University of Texas-Austin began to realise that the leading issue for many students was their inability to regulate their Internet use, a view that was confirmed when a study of student Internet abuse at the campus revealed that 14% displayed the conditions of Internet addiction (Young, 2004).

Despite the merits of the Internet which is an ideal research tool for students if used correctly many students experienced significant academic problems as they found themselves surfing inappropriate web sites, taking part in chat room gossip, communicating with pen-pals and playing interactive games online all of which affected the result of their own studies. Due to these activities, many students encountered

difficulty completing homework assignments, studying for upcoming exams, getting sufficient sleep to be alert for the next day's classes and those not able to control their Internet use found themselves achieving poor grades, receiving academic expulsion and sometimes resulting in expulsion for university entirely (Young, 1996; Young, 2007).

The high dependence of the younger generation on the Internet for learning, leisure and social activities is recognised as a social problem and this generation are also more vulnerable to the influences of the media (Fu et al. 2010).

When compared to other sections of society college students are regarded as being more susceptible to Internet addiction due to psychological and developmental characteristics of adolescence and early adulthood and easy access to and expected use of the Internet. Stress, family support or the lack of it and the harmful use of alcohol use among college students are all factors in the development of Internet addiction (IA) (Yan et al. 2014; Weinstein et al. 2014).

College administrators are however now starting to see the possible impact of which Internet usage can have on their students/younger generation with many realising that they have invested money into what they believed to be a great educational tool only to find out that it can be misused and very easily abused (Young, 2004).

When the head of Alfred University in USA looked further into the reasons why normally successful students had been dismissed to his amazement he found that 43% of these students had failed school due to lengthy night-time logins to the university's computer system (Young 2004; Young 1999a)

The University of Texas Austin was one of the first campuses to carry out a study on student Internet abuse as counsellors at the University began seeing students whose primary problem was an inability to control their Internet use (Young, 1999a; Young, 2004). Findings revealed that from 531 valid responses from students there was a total of 14% which met the criteria which qualified them for Internet addiction (Young, 2004).

Internet addiction (IA) is both a newly evolving social and mental health issue among youths today attracting much attention worldwide, particularly in certain Asian countries such as South Korea and China have already recognised Internet addiction as a public health problem with reports that China which is ranked as the largest Internet broadband market worldwide claiming that one in every six Chinese Internet users may have already developed some degree of Internet addiction (Fu et al. 2010; Yan et al. 2014; Block, 2008). The average South Korean high school student spends about 23 hours every week online gaming, a further 1.2 million are believed to be at risk of addiction and require basic counselling (Block, 2008).

A 2009 National report on Internet Addiction of the Chinese youth community carried out by the China Youth Association for Network Development revealed that 14.1% of young people in China aged 13-29 years old (i.e. at least 24 million youths) were possibly addicted to the Internet with more than half of these college or high school students (Yan et al. 2014).

Factors Contributing to Student Internet Abuse

With such a widespread existence of Internet abuse the question which needs answering is what are the factors contributing to student Internet abuse. Young (2004) attributes the following factors for abuse of the Internet by students.

- **Unlimited Internet Access:** When students enrol in universities today they receive their student ID card. However, despite receiving their ID card they more importantly they also more importantly receive a free personal e-mail account with no online service fees to pay, no limits as to the amount of time they can remain logged on and the luxury of computer labs which are available for 24 hours a day which equates to any Internet user's dream scenario.
- **Large Volume of Unstructured Time:** With the large amount of unstructured time students have time to explore the campus and activities at the campus they are attending but many choose to forget this and concentrate on one activity: The Internet.
- **Freedom From Parental Control:** Many students are experiencing life away from home for the first time without the watchful eyes of their parents. The use of chat rooms at all hours of the night is not checked by their parents.
- **Lack of Monitoring and Censorship of Online Activities:** While in college or university the monitors of the computer labs are usually senior volunteer students whose responsibility is to help students, who require assistance using the Internet and not telling students what they cannot do while on the Internet.
- **Encouragement From Faculty and Administrators:** Students are under the presumption that the faculty wants them to make full use of the resources supplied. There is usually no option when it comes to not using online facilities as with large classes most course material such as lectures is placed online, many assignments are submitted via e-mail and if a student required to contact a lecturer out of class time to ask a question this is also carried out online. Administrators must be seen to justify the financial outlay they invest in computers and Internet access on campus.
- **Social Intimidation and Alienation:** Many campuses can have up to 30,000 students on campus and it is very easy for some students to feel lost in the crowd. When these students reach out they invariably run into tighter clicks than those they experienced in high school. To hide from the difficult feelings of anxiety, depression, pressure of making top grades, fulfilling parental expectations, graduation and the competition of finding a good job they join the faceless community of the Internet which allows them to find friends worldwide.

Employee Internet Abuse

The benefits of employees having access to the Internet is a benefit for the employee and the company alike enabling the employee to carry out tasks such as market research and business communication (Young, 1999a). However, despite these benefits (Murali and George, 2007) report that employees with access to the Internet at their desk spend a lot of their time during a business working day engaged in Internet use which is completely non-work related.

Employers are inclined to underestimate the amount of time employees spend on their mobile phones and underestimate the amount of time spent on social media. Such flexible anytime, anyplace attitude to working on mobile devices can very quickly become 'all the time and everywhere' (Jeske et al. 2016).

Since approximately 70% of companies provide Internet access to more than half of their employees and due to the widespread reliance, that we as individuals have on the Internet in the world today there has been a drive to carry out surveys within the industry sector to investigate the prevalence of employee Internet abuse while at work (Young, 2004).

The wrongful use of the Internet in the workplace by employees is of grave concern for managers at work, with a survey of the nation's leading 1,000 companies highlighting that 55% of company execu-

tives were of the belief that time spent on the Internet for non-business reasons was detrimental to the efficiency by which their employees could carry out the tasks involved in their job (Young, 1999). The use of new monitoring devices enables employers to track Internet usage and one company which carried this out practice had its worst fears confirmed, revealing that only 23% of the Internet usage within the company was for business purposes (Young, 1999).

The rise in employee Internet usage has resulted in the development of new electronic monitoring companies such as Cyber Surveillance, Websense and Spector Pro which include features such as logging Internet conversations, web activity and the tracking the history of employee Internet usage either weekly or daily (Young, 1999).

Employee abuse of the Internet during working hours has the potential to create Internet addiction among the workforce and have further consequences for the business which include the following:

- **Business Epidemic:** A survey by an online analyst firm of 1439 workers revealed that 37% of workers admitted to surfing the Net continually at work, while 32% admitted to surfing a few times a day and 21% admitting to surfing the Net a few times a week (Young and Case, 2004; Young, 2004)
- **Disciplining & Termination of Employees:** A further survey of 224 companies by the electronic monitoring firm Websense Inc, revealed that a total of 64% of these companies have disciplined employees while a further 30% have had their contracts terminated for improper Internet usage. The main reasons requiring termination or disciplinary action to be taken included (42%) accessing pornography, (13%) chatting online, (12%) involved in gaming, (8%) sports-related, (7%) investing and finally (7%) shopping from work (Young and Case, 2004, Young, 2004). A report on online usage carried out in the year 2000 reports how in the USA 73% of active adult Internet users confess to having accessed the Web at least once from work, while 41% do most of their online activity from work and 15% go online solely from work (Young and Case, 2004).
- **Lost Productivity:** Internet usage by employees at work equates to billions in lost revenue for employers with Vault.com estimating that the figure for employee Internet abuse costs the U.S. $54 billion in lost productivity each year (Young and Case, 2004).
- **Negative Publicity:** A survey covering a diverse range of industries and employees within these different industries found that a total of 83% of companies were concerned over the inappropriate Internet usage by employees and the resultant negative publicity from employee termination because of abuse of the Internet makes potential customers less trustful of the integrity of such companies (Young and Case, 2004).
- **Legal Liability:** Even though Internet is invaluable resource in companies today the wrongful termination of employee contracts for using a tool which the company has supplied and the diagnosis of Internet addiction leaves companies open to being sued in a court of law.

Treatment Strategies for Pathological Internet Use

In today's world, the use of the Internet is both essential and increasing in use both in business and in households. Given that the Internet has numerous positive uses and advantages in day-to-day life such as electronic correspondences to venders regarding orders in the world of business and the practice of Internet banking in the home environment (Young, 1999a; Murali and George, 2007). Due to the many positive uses of the Internet in our daily lives, customary examples of the standard treatment which include

abstinence as used for individuals presenting with substance addictions is not the focus of treatment for Internet use as treatment for individuals who display excessive Internet use should be moderation and controlled use (Murali and George, 2007; Young, 1999). There is a consensus that total abstinence from the Internet should not be the goal of any interventions in the treatment of Internet addiction but rather the goal should be to achieve an abstinence from problematic applications and both a controlled and balanced Internet usage should be the desired outcome (Cash et al. 2012). A significant finding shows that individuals which present with Internet addiction (IA) are associated with poor impulse control so understanding the neural basis which underlies poor impulse control in IA subjects may be of great importance in firstly the diagnosis and secondly the treatment of this disorder (Li et al. 2014).

Internet addiction disorder displays a resistance to treatment, involves significant risks, demonstrates high relapse rates while making other disorders less reactive to therapy (Block, 2008). However, evidence based intervention for the intervention in a stand-alone diagnosis of Internet addiction is not currently available as further treatment studies are required to examine Internet addiction as a secondary outcome measure (Fu et al., 2010).

Approaches for treating pathological Internet use are very much in their infancy as there is little research in this area with no recognised or effective treatments available. However, initial indications despite being early point to the effective nature of behavioural strategies in the treatment of Internet addiction (Murali and George, 2007).

Based upon individual practitioners who have worked with individuals with Internet addiction and research findings from other addictions there are several different techniques employed to treat Internet addiction and they include the following eight strategies which as Cash et al (2012) explains are already known from the cognitive-behavioural approach.

1. Practising the opposite. Once the patient's usual pattern of logging on to the Internet is realised, interrupt this pattern by proposing they use the Internet at alternative times by proposing a different schedule.
2. Employing external stoppers. Employ the use of actual events or real goings-on in a bid to encourage the patient to log off from their current use.
3. Set goals.
4. Abstain from an application.
5. Use reminder cards.
6. Develop a personal inventory.
7. Enter a support group.
8. Family therapy.

The first three methods for dealing with Internet addiction are however only methods for the management of the Internet addict's time and upon failure of these fail there is a requirement to adopt a more approach. Those patients which discover positive methods of managing in their day-to-day lives should no longer rely on the Internet to control frustrations, however within the early stages of recovery these patients will have a void in their lives with the loss of the lengthy periods which they previously spent online. For most patients that derive a great source of pleasure from the Internet the adjustment to no longer having it as the central part of their lives anymore can be very difficult (Young, 1999a).

- **Practising the Opposite:** A major factor in the treatment of an Internet addict is the restructuring of the way in which the Internet addict manages their time. When treating, the Internet addict the clinician should take time to ask questions to understand the addict's current habits of using the Internet. In a bid to ascertain the extent of the Internet addict's current problem the clinician should find out: which days of the week the Internet addict usually goes online; what time of the day do they normally start their online usage; the length of time they spend in a typical on-line session and finally where they carry out their computer use (Young, 1999a).

Once evaluation of the patient's Internet use has been achieved it is essential to create a new timetable with the client which practices the opposite to what they are currently practicing. The ultimate objective of this is to disrupt the client's current routine in a bid to adjust to new time patterns of use and disrupt their old on-line habit. If an addict checked their e-mails first thing every morning, then change this and have their shower followed by breakfast before logging on and if the addict has an established pattern of coming home and logging on and sitting in front of the computer then they should change this and have dinner and watch the news before logging on. For those patients who never take breaks then he or she should be reminded to take a break from the Internet every half hour. Addicts that use the Internet all weekend should change this pattern to just weekdays. This simple tool helps Internet addicts in the step to changing an online practice use which is opposite to what they are used to (Young. 1999a).

- **Employing External Stoppers:** This technique uses real things such as places the Internet user needs to go to as ways of assisting him or her log off such as leaving for work although this is fraught with danger as there is the possibility that the patient may disregard such natural alarms. If this happens then the placement of an alarm clock which is pre-set to determine when the Internet session should finish nearby so when the alarm rings it is time to log off (Young. 1999a; Cash et al. 2012).
- **Setting Goals:** Attempts to limit online usage in many cases fail as users rely on an unclear plan to trim hours without defining firstly when their remaining online slots will come. In a bid to prevent relapse occurring the Internet addict should have a program of sensible goals such as 20 hours in place of the current 40 and those 20 hours should be written on a weekly planner so Internet sessions have time slots which are brief but frequent thus helping to evade longings for the Internet and withdrawal. For example, a 20-hour schedule could be split into the following slots, 8p.m. to 10p.m. every weekday and 1p.m. to 6p.m. on Saturday and Sunday. Using a schedule such as this will give the patient/addict the feeling that they are in control rather than allowing the Internet to take control of them (Young, 1999a; Cash et al. 2012).
- **Abstinence:** A clinician's assessment will diagnose an application such as chat rooms, interactive games, World Wide Web (W.W.W.) or news groups as the most problematic for the patient. Upon identification of the application which is most problematic to the user the next course of action is restrained use of this application and if this course of action fails then abstaining from it completely is the next stage in the Internet addict's treatment. While abstaining from the application completely the Internet user is still allowed to use other applications which the user finds less interesting or those which the user has a genuine reason for using. This means that a patient who finds chat rooms addictive should abstain from them but that they can still use the W.W.W. to make holiday reservations or shop for a new car (Young, 1999a). Abstinence is most appropriate for those patients who

present with a previous history of a prior addiction such as alcoholism or drug use. Many patients with such a previous history find the Internet a safe substitute to their addiction and many become obsessed with the Internet thus preventing a relapse into drug use or drinking. Although such patients justify the Internet as a safe addiction they still avoid dealing with the unpleasant situation which has triggered this new addictive behaviour. The introduction of previous approaches which have been effective for each individual Internet addict it will allow him or her to manage their Internet usage efficiently enabling them to focus on their underlying issues (Young, 1999a; Cash et al. 2012).

- **Reminder Cards:** In a bid to support patients so that their concentration remains focused on the end goal of either reduced abstinence or complete abstinence from an Internet application the Internet addict is encouraged to make a list, firstly of five major problems which Internet addiction causes and secondly five major reasons for reducing Internet use or abstaining completely from a specific Internet application (Young, 1999a; Cash et al. 2012).

Problems may include things such as marital problems, problems at work, poor academic grades whereas benefits will include a better home life, more time with family, better grades at school and more productivity in the workplace (Young, 1999a). By putting these points on a card and carrying the card in their wallet, trouser pocket, coat or purse the patient when tempted to use the Internet should look at the card and make a point of taking this card out several times a week to reflect on the problems that Internet overuse causes. Young (1999a) highlights how making decisions about what is included on the cards should be both as broad and as honest as possible. This tool is useful later as the patient has cut down on Internet usage or quit it completely as it prevents relapse into a state of Internet addiction again and (Young, 1999a).

- **Personal Inventory:** Young (1999a) highlights that whether a patient is trying to reduce their usage of an application or achieve abstinence from it the clinician treating them should tell the patient to take time to make a personal inventory of activities such as fishing, hiking or golf that he or she has had to cut down on due to their increased time spent on the Internet. The clinician should make the patient list all activities and practices which have been neglected or curtailed due to their Internet use and rank them as follows: very important, important and finally not very important as this exercise shows the patient exactly what they are missing out on due to their increased time spent online. Such practices are beneficial to patients that feel euphoric when engaged in online activity as it cultivates pleasant feelings achieved from real-life activities thus reducing their need for emotional fulfilment on-line.
- **Support Groups:** The absence of real life social support in the lives of individuals has been responsible for propelling these individuals towards the addictive Internet use from which they now suffer. Individuals who spend long periods of time alone and adopt lonely lifestyles such as single, retired or disabled individuals turn to online applications such as chat rooms to replace the absence of real life social support in their own lives (Young, 1999a). Akin and Iskender (2011) highlights how loneliness, depression and a reduction in the size of the individual's social circle all give rise to the use of the Internet. Young (1999) highlights how patients who have experienced the loss of loved ones, job loss, divorce may respond by turning to the Internet as a mental distraction from their real- life problems as their on-line world makes their real-life problems fade into the background.

Clinicians who carry out a life assessment on their patients and uncover this problem should assist the client in finding a support group that best addresses his or her situation. Clinicians should search out private practices that offer support groups which include those addicted to the Internet as these will be especially useful to those with feelings of inadequacy, low self-esteem. As Young (1999a) highlights addiction recovery groups deal with the Internet user's poor thoughts providing an opportunity to form real life relationships allowing them relief of their social shyness and ultimately their requirement for companionship on the Internet. Such groups enable the Internet addict to find support to help them in challenging changes in their lives like AA sponsors.

- **Family Therapy:** Family therapy may be required for addicts whose marriages and family relationships have been negatively affected because of Internet addiction. Family intervention should focus on the following areas:
  - Educating the family on the addictive nature of the Internet.
  - Reducing blame on addicts for their behaviour.
  - Improve communication within the family including problems which caused the on-line addiction initially.
  - Encouragement within the family to assist with the addict's recovery such as finding new hobbies or taking an overdue vacation.

A strong sense of support and encouragement from within the family network can be an important tool in the process of recovering from Internet addiction (Young, 1999a).

According to Chebbi et al. (2001) there exists two major kinds of treatment that individuals with Internet addiction can benefit from and they include motivational enhancement therapy (MET) and cognitive behavioural therapy (CBT) with the latter being the more favourable of the two. CBT is a treatment based upon the premise that thoughts determine feelings and patients are taught to monitor their thoughts and identify those thoughts which trigger addictive feelings and actions as they learn new coping mechanisms to prevent a relapse. CBT usually requires three months of treatment or 12 weekly sessions (Young, 2007; Brand et al. 2014). CBT has been shown to be an effective treatment for compulsive disorders such as intermittent explosive disorder, pathological gambling and it has also been effective in the treatment of substance abuse, emotional disorders and eating disorders (Young, 2007). CBT is just one treatment approach and further research is required to investigate the long-term effects of this treatment with larger populations along with matching which types of Internet addiction respond best to which treatment types best as this will ultimately lead to long-term recovery. Reality therapy (RT) is a further method used for the treatment of Internet addiction. The goal of Reality Therapy is to encourage the individual to choose to improve their own lives by committing to change their behaviour (Cash et al, 2012). This form of therapy includes sessions which show clients that the addiction they have is a choice and it trains them in management of their time and introduces them to alternative activities to their problematic behaviour (Cash et al, 2012).

The use of psychopharmacotherapy was also used in treatment which involved administering selective serotonin reuptake inhibitors (SSRIs) typically used in treating anxiety disorders including OCD, stimulants for treating ADHD and antipsychotics used for schizophrenia has also reported a decrease of Internet addiction symptomatology and Internet/gaming use times (Kuss, 2016).

FUTURE RESEARCH DIRECTIONS

Asian countries such as China and Korea have already recognised Internet addiction as a public health problem and China which is ranked as the largest broadband market in the World reports that a possible one in every six Internet users may have developed some level of Internet addiction (Fu et al., 2010). Internet addiction is viewed upon as a social problem in the younger generation as they depend upon it for learning, leisure and social activities and are more susceptible to media influences and appear to be less self-regulative.

With no one diagnosis many therapists are unsure that they are looking for Internet addiction and thus it is unlikely to be detected but in Asia where cases are more prevalent therapists are taught to screen for it automatically (Block, 2008).

The year 2006 saw the first opening of the first inpatient treatment centre in Beijing, China with Korea having over an estimated 140 Internet addiction treatment recovery centres. The United States saw the opening of the first inpatient residential care centre in Redmond Washington. A basic understanding of this disorder is required by psychiatrists so early recognition and intervention can take place especially in individuals with other underlying problems (Murali and George, 2007). Due to the ever-increasing use of the Internet in our day-to-day lives, criteria for the successful diagnosis of this disorder are necessary and the recognition of it as disorder by the Diagnostic and Statistical Manual of Mental Disorders is needed so those affected can receive treatment and those diagnosing individuals know the signs of Internet addiction.

CONCLUSION

People have an increasing reliance on the Internet and it plays an essential part of their everyday lives (Chebbi et al., 2001). Even though this disorder is still in its infancy the problems associated with it are set to rise. With the rapid rise in Internet use, millions more are coming online which has the potential to create a real clinical threat due to the rise in a disorder about which very little is known. Since Internet addiction disorder (IAD) is such a new and innovative condition which causes laughter among many people when mentioned many individuals suffering from this addiction are therefore hesitant about seeking treatment from their clinician as they are afraid that their complaints will not be treated seriously and their current condition will worsen as a result (Young, 1999a). Many find it difficult to comprehend how a tool which is so beneficial in our day-to-day lives as a means of both information and communication could be classified as addictive (Young, 2010).

There is a major requirement to establish an agreement on diagnostic criteria for Internet addiction as this is needed for both the purpose of diagnosis and correct intervention to enable effective and efficient treatment approaches. The American Psychiatric Association (APA) is proposing the inclusion of "pathological Internet use" in the DSM-IV revision concluding that this is the broadest term to use (Young, 2010; Kuss and Lopez-Fernandez, 2016). In 2013, the American Psychiatric Association included Internet Gaming Disorder (IGD) in the appendix of the updated (DSM-V) as a condition which requires additional research prior to its official inclusion in the main manual (Kuss, 2016; Kuss and Lopez-Fernandez, 2016; Zhu et al. 2015). The term Internet addiction is currently being considered for inclusion in the DSM-V as a psychiatric diagnosis which indicates that professionals are beginning to take the matter of Internet addiction seriously (Fu et al., 2010).

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KEY TERMS AND DEFINITIONS

Addiction: An addiction is a medical condition which is portrayed by compulsive use in a pleasing stimulus which it may offer despite the long-term negative consequences which it may result in.

Diagnosis: This refers to the identification of a disease or illness through an evaluation of the signs and symptoms individual presents with.

Disorder: A disturbance in body function, structure or both which is inherited or results from development failure from such factors as disease, trauma or poison.

Dysphoric: A feeling of unease, unhappiness or anxiety about oneself as opposed to euphoria which describes a state of extreme happiness.

Internet: A global system of interconnected computer networks which use Internet protocols to link devices worldwide. The Internet carries a vast array of information enabling the passage of information through services and applications of the World Wide Web W.W.W.

Pathological: The behaviour of a person can be described as pathological when he or she behaves in a way that is extreme and unacceptable and displays powerful feelings that they are unable to control.

Predisposition: The state of being likely to behave in a certain way or suffer from a disease or condition.

Psychopathological Conditions: This refers to the development of conditions which manifest themselves because of a mental or behavioural disorder.

Reliance: This refers to the placement of one's dependence or trust in a person or a thing which leads to that individual becoming reliant on that person or thing.