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Internet Addiction and its Abuse in Digital World

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Abstract: With increasing interest of literacy among people, advent of personal computer and their easy availability at home, workplace, education centers, bank etc., with online access problem related to Internet addiction and its abuse among users increased phenomenally in recent years. Based on this world wide web and computers have become a widely accepted aid in education and their influence in nearly all spheres of human existence is constantly increasing. Internet access and usage in the world has been proliferating year by year, according to the Internet World Stats estimated the growth of since 1989, the online population of internet users has grown of 5,00,000 to 4.2 billion people in October 2018 indicating an upward trend in the number of digitally literate people. Such a rapid growth has been interacted with people's needs and motivation. In today the world population was estimated to have reached 7.6 billion as of December 2017 declared by World Population Clock but just 51.7% of the use Internet. The growth rate was increase 976.4% since 2000-2017. After the more established addictions like drug and alcohol, the internet is relatively new concept as well as micro research was done as a addiction on the world platform. According to Internet and Mobile Association of India (IAMAI) the world population has India is ranked 2nd among the highest number 500 million users till June 2018) approximately 35.5% of Indian population internet users subsequent to China. Such practices which have been amongst the most widely reported abuses of the internet. The improper use of the internet and excessive use of the internet in such a way that it has become an idol, e.g. cyber relationship abuses and addiction, sexting, using online relationship to replace real life friends and family, excessive use of social networking sites etc. On this fact this paper will highlight the internet addiction and its abuse in general population and especially among the children in India. Further, this stand also suggests risk of internet abuse, preventive strategies and safeguard measures.

Keywords: *Internet addiction; Internet abuse; Virtual reality addiction; Addictive behavior; Sexting.*

1. INTRODUCTION

More than twenty years pass outs the Internet addiction phrase firstly used by Dr. Ivan Goldberg in the year of 1995 has recently become a observable fact which is tried to be described with dissimilar names such as 'online addiction', 'cyber disorder', 'net addiction', 'internet addiction', 'pathologic internet use' and 'internet addiction disorder' (Eichenberg&Ott, 1999). There aren't any homogeneous and standard metaphors for IA disorder (Chou, Condron&Belland, 2005) but its fundamental symptoms can described as not proficient to limit internet use, that means we can't bound that uses minimum or maximally. To continue or excessive use of internet prevent the stamina for increasing values and down through social or scholastic damage along with feel deep anxiety, loneliness, depression etc. when users of the internet usage is restricted or limited (Öztürk et al., 2007).

Today the Internet is a worldwide entity whose nature cannot be easily or simply defined. To many, the internet is a large computer network linking together millions of smaller computers at numerous sites in various countries. The internet is a global community-one with a very active life and it can be conceived as a rich, multi-layered complex ever-changing text for information dissemination and a medium for collaborative interaction between individuals and computers without regards for geographical limitation of space. In the decades of 1960s the computer network project developed with the aim of research, education and defense. And the same decade the project has reached a new aspect including all activities such as education, social communication, research, politics, entertainment and trade which concern all people. And from starting to 21st century till now the proved the Internet is the fastest developing electric technology in the world history ever (Musch, 2000; Hecht, 2001; Alkan & Canbay, 2011). The idiom internet was first introduced in 1982, while became more pervasive in the mid 90's decades.

Internet access and usage in the world has been proliferating year by year, with approximately 1.11

billion users in 2007, 1.67 billion in 2009, and 1.97 billion in 2010 (Miniwatts Marketing Group, 2010), indicating an upward trend in the number of digitally literate people. Such a rapid growth has been interacted with people's needs and motivation. In today the world population was estimated to have reached 7.6 billion as of December 2017 declared by World Population Clock but just 51.7% of the use Internet. The growth rate was increase 976.4% since 2000-2017. After the more established addictions like drug and alcohol, the internet is relatively new concept as well as micro research was done as a addiction on the world platform. According to Internet World Stat, the world population has India is ranked 2nd among the highest number (462, 124, 989 billion users till 31st December 2017) approximately 34.1% of Indian population internet users subsequent to China. So, in this area is broad for deep research to study the consequences, prevalence, causes, and pattern of internet addiction. In the past decades the number of internet users has increased dramatically. It is evident that the combination of socio-psychological factors consequent from inter-relationships between the personage, family unit, relative, neighbors and friend circle groups can contribute to internet addiction and most essential the internet-related factors such as longer usage point in time, easier access and greater internet skills can lead to internet addiction (Lee *et al*., 2001). In the year of 2007 it was long-established through Canbaz et al. in 2009 that there were 6.6 billion people in the world but 20% of them use internet, the increased rate has increased 265.6% on that time. However, 11% to 19% of adolescents have developed an addiction to internet use. Ultimately, it impairs the individuals' school, peer, family, relatives and of course scholastic performance (Ko at al., 2005).

There has been much alarm about Internet abuse in the past decade. Claims of Internet-related crimes such as homicides, suicides, and child neglect have received widespread media attention across the globe ("Chinese Gamer Sentenced to Life," 2005; Spain & Vega, 2005). Many claim that they are or know someone who is addicted to the Internet. Fifteen percent of university students in the United States and Europe and 26 percent of Australian students claim they know someone is addicted to the Internet (Anderson, 1999; Wang, 2001). Almost 10 percent of adult Internet users in a large online study self-identified as Internet addicts (Cooper, Morahan-Martin, Mathy, & Maheu, 2002), while 31 percent of MySpace users (Vanden Boogart, 2006) and 42 percent of online gamers (Yee, 2002) say they are addicted to those Internet applications. In Germany, a camp was established to help children who were addicted to the Internet (Moore, 2003). It is tempting to dismiss these claims as media hype, but clinicians also have reported Internet-related problems and have set up clinics specifically to treat these problems in many countries. In recent years, governments in Asia have established clinics and intervened to reduce Internet use. The first Chinese clinic for Internet addiction in Beijing has expanded from 40 to 300 inpatient beds, and new clinics are being established in other Chinese cities (Griffiths, 2005; Lin-Liu, 2006). The South Korean government established the Korean Center for Internet Addiction Prevention and Counseling "to correct the Internet misuse and to help Internet addicts" (International Telecommunication Union, 2003) and plans to increase the number of treatment centers for Internet addicts from 40 to 100 by 2010 ("South Korea Plans More Centres to Treat Internet Addiction," 2005). Below here are the activities of per second on the internet according to Internet World Stats in December2018.

TIME CLOCK OF THE INTENET USERS IN THE WORLD "Per Seconds"	
888	INSTAGRAM Photos uploaded
1,470	TUMBLER Photos
3,547	SKYPE Calls
8,318	TWEETs
66,174	GB of Internet Traffic
71,568	GOOGLE Search
76,874	YOUTUBE Videos viewed
2,758,130	E-Mail Sent
@Copyright: Miniwatts Marketing Group 2018 http://www.internetlivestats.com/one-second/#email-band 28.12.2018 21:40PM	

1.1. Characteristics of Internet Addicts

The symptoms of Internet addiction or Pathological Internet Use include "obsessive thoughts about the Internet, tolerance, diminished impulse control, inability to cease using the Internet, and withdrawal". Beard and Wolf have (2001) also proposed a set of diagnostic criteria for Internet addiction. The characteristics of Internet addicts are described below, with references to previous empirical studies.

Characteristic	Typical Behaviors
(1) Excessive use of Internet	Spent more than 40 hours on line per week.
(2) Obsessive thought about the Internet	Unable to refrain from thinking about the Internet.
(3) Pleasant feeling in Internet use	Internet exposures are pleasurable, entertaining, interactive, and relaxed.
(4) Tolerance	The need to use the Internet with increased amount of time in order to achieve satisfaction.
(5) Diminished impulse control	Reduced emotional self-regulation to control one's impulses to reach a goal; unable to stop using the Internet.
(6) Withdrawal	Unpleasant feeling when the Internet activity is being stopped or cut down.
(7) Impact of daily life	Risking the loss of a significant relationship, educational or career opportunity because of the Internet; lying to others, and escaping from problems.
(8) Parental and Family Interactions	Spent less time with family members, the tension with parents is usually high.
(9) Friendship and romantic relationships	Less friends and romantic relationships.
(10) Health problems	Less willing to seek medical treatment and less motivated to develop stress-relieving practices.
(11) Academic performance	Usually at lower level.
(12) Lonely character	Lonely people used the Internet when they felt lonely, depressed or anxious.

2. INTERNET ADDICTION

The advantages of the Internet are undeniable and well–evidenced in the literature. Nevertheless, excessive or unregulated usage has been associated with a condition of Internet–related disturbances which calls "Internet abuse" referring to the "patterns of using the Internet that result in disturbances in a person's life but does not imply a specific disease process or addictive behavior". Some scholars or clinicians prefer to use the term "Internet addiction" to define this condition as a form of impulse control disorder (Young, 1998). Despite various approaches to the conceptualization of the condition, which is still developing and negotiated in ongoing research, studies acknowledged its existence and reported similar symptoms: school and work–related impairments, interpersonal problems, preoccupation with using the Internet, using the Internet to improve negative moods, and serious disturbances in users' social capitals (Morahan–Martin, 2008).

Some researchers have also conducted research on Internet addiction and other Internet-related problems and have found that 5.9% to 13.0% of Internet users exhibit disturbed behavior on the Internet (Morahan-Martin, 2001), and 15% of university students in the United States and Europe know someone who is addicted to the Internet (Anderson, 1999). Yet these efforts are not without their critics. Many criticize both the concept of Internet addiction and abuse. In fact, the online Internet Addiction Support Group, though widely used by self-described Internet addicts, was founded by Ivan Goldberg as a joke because he did not believe in Internet addiction (Suler, 1998). Shek et al. examined Internet addiction behavior in 6,121 Chinese primary and secondary students in Hong Kong and found that one-fifth of their sample could be regarded as Internet addicted. Fu and his colleagues found that 6.7% of the Hong Kong teenagers display five or more symptoms of Internet addiction. In addition, the Internet addiction symptoms seem to go along with individuals' suicidal ideation and depressive symptoms. The situation in China is also quite serious. About 13.7% of adolescent Internet users (about 10 million teenagers) could be classified as Internet addicts (Block J., 2008). The situation in Taiwan is also similar. Lin and Tsai found that 11.8% of the senior secondary school students in their Taiwan study could be regarded as Internet dependents. Research also indicated that 4.0% to 8.1% of the university students showed excessive or pathological Internet use (Morahan-Martin and Schumacher, 2000; Wang W. 2001).

Claims of Internet addiction are based upon subjective experiences of self-reported Internet addicts as well as upon research on Internet abuse. Many feel out of control and helpless and report serious impairments in their lives as a result of their Internet use. Impairments include work and school-related problems and dismissals, interpersonal problems, separations and divorces, and even impaired health (Orzack, 1999; Young, 1998). Research also has confirmed that for some Internet users their use of the Internet has characteristics akin to those found with substance abusers and gambling addicts. These individuals are likely to use the Internet to modulate moods (i.e., when down or when anxious or as an escape), are preoccupied with using the Internet, have symptoms of tolerance and withdrawal, have tried unsuccessfully to cut back on use, and have serious disturbances in their lives because of their Internet use (Morahan-Martin, 2001). Although not all researchers in this field use the term Internet addiction or Internet abuse, they report similar types of symptoms.

3. INTERNET ABUSE

There is no standard term or definition for Internet abuse. These terms reflect differing conceptualizations of Internet abuse. Some have viewed Internet Abuse as a clinical entity and have used modified criteria from the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM–IV–TR*) (American Psychiatric Association, 2000). Some of the terms used include *compulsive Internet use* (Greenfield, 1999; Meerkerk, Van Den Eijnden, & Garretsen, 2006), *pathological Internet use* (Davis, 2001; Morahan-Martin & Schumacher, 2000; Niemz, Griffiths, & Banyard, 2005), *Internet addiction* (Bai, Lin, & Chen, 2001; Chak & Leung, 2004; Li & Chung, 2006; Nalwa & Anand, 2003; Nichols & Nicki, 2004; Pratarelli & Browne, 2002; Simkova & Cincera, 2004; Wei, Zijie, & Daxi, 2004; Yang & Tung, 2007; Yoo et al., 2004; Young, 1998), *problematic Internet use* (Beard, 2005; Caplan, 2002; Shapira, Goldsmith, Keck, Khosla, & McElroy, 2000; Shapira et al., 2003; Thatcher & Goolam, 2005a, 2005b), *Internet dependency* (Chen, Chen, & Paul, 2001; Lin & Tsai, 2002; Scherer, 1997; Wang, 2001; Whang, Lee, & Chang, 2003) and *Internet abuse* (Morahan-Martin, 1999, 2001, 2005). Other researchers also have approached Internet behaviors not as a clinical disorder but as a continuum from normal to disturbed use (Caplan, 2002, 2003, 2004, 2005a; Davis, Flett, & Besser, 2002; Morahan-Martin & Schumacher, 2000). Terms such as *compulsive*, *problematic*, or *pathological Internet* use reflect this approach.

These are far lower than the incidence found in other studies using representative samples. Studies have been conducted to assess the prevalence of IA in a number of countries. Estimates of the incidence of IA vary widely. Epidemiological studies are limited and have found a low rate of IA: less than 1 percent of U.S. adults over 18 (Aboujaoude et al., 2006) and less than 2 percent of adolescents in Finland and Norway (Johansson & G¨otestam, 2004; Kaltiala- Heino, Lintonen, & Rimpel¨a, 2004) had IA. In Taiwan, a study of a representative sample of university students found 5.9 percent with IA (Chou & Hsiao, 2000), while a second study using a cluster sample of high school students reported 11.7 percent had IA (Lin & Tsai, 2002). Leung (2004) reported 37 percent of a representative sample of 16-24 year-olds in a Hong Kong has IA, which is far higher than other studies. Studies using convenience samples report IA incidence as ranging from 1.8 percent to 18.3 percent (Bai et al., 2001; Chak & Leung, 2004; Kim et al., 2006; Morahan-Martin, 2001; Morahan-Martin & Schumacher, 2000; Niemz et al., 2005; Scherer, 1997; Thatcher & Goolam, 2005a; Wei et al., 2004; Whang et al., 2003; Yang & Tung, 2007).

3.1. Internet Addiction and Abuse as an Addictive Behavior

Nevertheless, many mental health professionals believe that the addictive model does include both substances and behaviors (e.g., Grant, Brewer, & Potenza, 2006; Marlatt, Baer, Donovan, & Kivlahan, 1988; Pallanti, 2006; Potenza, 2006; Shaffer, 2006; Shaffer et al., 2004). Shaffer et al. (2004) argue for a syndrome model of addiction, which includes both substances and behaviors. Based on "evidence of multiple and interacting bio-psychosocial antecedents, manifestations, and consequents – within and among behavioral and substance-related patterns of excess – reflects an underlying addiction syndrome, propose that addiction should be understood as a syndrome with multiple opportunistic expressions" (p. 367). Individual vulnerability to addiction, including shared neurobiological and psychosocial elements, puts individuals at risk for developing problems when exposed to specific objects of addiction. The expression of addiction can vary according to the specific object of addiction, but there are "common manifestations and sequelae (e.g., depression, neuro-adaption, and deception)" (p. 368). A summary of the supporting evidence and how it may apply to cases of IA that are clinically significant follows. The term *Internet addiction* is used in this section to differentiate it from

Internet abuse (IA) which, as used generically in this chapter, does not necessarily imply a mental illness. However, researchers do not necessarily use that term.

3.2. Loneliness, Social Anxiety, Depression, and Internet Addiction and Abuse

The Internet is ideally suited for these individuals. Online social interactions are not face to face, often anonymous; less inhibited, and allows increased control, which can alleviate self-defeating behavioral patterns and cognitions. Research supports that social behavior of the socially anxious and lonely is enhanced online (Caplan, 2003; Morahan-Martin & Schumacher, 2003; Shepherd & Edelman, 2005), and they are more likely than others to develop a preference for online over F2F social interaction, which is an important predictor of the development of IA (Caplan, 2003; Ervin, Turk, Heimberg, Fresco, & Hantula, 2004). The preference for online over face to face interaction may be a key factor in the relationship between IA and both loneliness and social anxiety. Those who are chronically lonely and those who are socially anxious share many characteristics, which may predispose them to develop IA. Both are apprehensive in approaching others, fearing negative evaluations and rejection. They tend to be self-preoccupied with their perceived social deficiencies, which leads them to be inhibited, reticent, and withdrawn in interpersonal situations and avoid social interactions (Bruch, Kalfowitz, & Pearl, 1988; Burger, 2004; Leary & Kowalsky, 1995a, 1995b; Morahan-Martin, 1999; Solano & Koesler, 1989).

3.3. Internet Addiction and Abuse with Other Problems

Individuals with IA are more likely than others to have a number of other problems. These include substance abuse (Bai et al., 2001; Greenberg, Lewis, & Dodd, 1999), pathological gambling (Greenberg et al., 1999), mood disorders of depression (Kim et al., 2006; LaRose et al., 2003; Thatcher & Goolam, 2005a; Wei et al., 2004; Whang et al., 2003; Yang & Tung, 2007; Young & Rodgers, 1998), sexual compulsivity (Cooper, Putman, Planchon, & Boies, 1999) and bipolar disorder (Black, Belsare, & Schlosser, 1999; Shapira et al., 2000). Shyness and social anxiety (Caplan, 2002; Chak & Leung, 2004; Pratarelli, 2005; Wei et al., 2004; Yang & Tung, 2007), Personality factors associated with IA include loneliness (Caplan, 2002; Kubey, Lavin, & Barrows, 2001; Morahan-Martin & Schumacher, 2000, 2003; Nalwa & Anand, 2003; Whang et al., 2003), lowself-esteem (Niemz et al., 2005;Yang&Tung, 2007). Children with IA were more likely overall to have behavior problems, including attention deficit hyperactivity disorder (ADHD), anxiety/depression, delinquent behavior, and sexual and social problems (Yoo et al., 2004). Research on specific IAs has found similar factors.

4. PREVALENCE OF INTERNET ADDICTION OVER THE WORLD

Internet addiction and abuse prevalence rates have a great variance depending on measurement method and target population. A worldwide review carried out and listed was here. At this moment the cultural differences cannot be explained. This possibly relates to a previously raised issue about different results. Without a unified instrument or clinical approach to diagnosing IA it producing a correct interpretation is highly unlikely. [A more detailed overview is presented in below table].

Prevalence of Internet Addiction over the World

Year	Author	Country	Sample	Age range	Gender include	Test Scale	Mean Age	Prevalence
1999	Greenfield	USA/Canada	17251	8-85	M>F	VAS	33	5.7%
2000	Morahan-Martin and Schumacher	USA	277	-	M>F	PIU Scale	20.72	8.1%
2000	Chou and Hsiao	Taiwan	910	20-25	M>F	Chinese IRABI	21.11	5.9%
2001	Kubey et al.	USA	576	18-45	M>F	Internet dependency factors	20.25	9.26%
2001	Anderson	USA	1078	-	M>F	Internet use per day assessment	-	9.8%
2002	Lin and Tsai	Taiwan	753	-	M>F	IAT Scale	-	11.8%
2003	Whang et al.	South Korea	13588	20-50	M=F	IAT Scale	26.74	3.5%
2004	Johansson & Gotestam	Norway	3237	12-18	M>F	YDQ Scale	14.9	2%

2004	Yuen and Lavin	USA	283	18+	-	DSM-IV Questionnaire	-	15.2%
2004	Leung	Hong Kong	699	16-24	F>M	YDQ Scale	19.8	37.9%
2004	Kaltiala-Heino et al.	Finland	7229	12-18	M>F	DSM-IV Questionnaire	15.6*	1.4-1.7%
2004	Yoo et al.	South Korea	535	9-13	M>F	IAT Scale	11.1	0.9%
2005	Niemz et al.	UK	371	-	M>F	PIU Scale	21.5	18%
2006	Aboujaoude et al.	USA	2513	18+	-	DSM-IV disorders criteria	48.5	0.3-0.7%
2006	Cao et al.	China	2620	12-18	-	YDQ Scale	-	2.4%
2006	Kim et al	South Korea	1573	15-16	F=M	IAT Scale	-	1.6%
2006	Pallanti et al.	Italy	275	14-18	M=F	IAT Scale	16.67	5.4%
2008	Ghassemzadeh et al.	Iran	977	14-16	-	IAT Scale	-	3.8%
2008	Demertovics et al.	Hungary	1037	-	-	IAT-YDQ Scale	-	4.3%
2008	Jang et al.	South Korea	851	-	M>F	IAT Scale	13.9	3.7-5.1%
2009	Ko et al.	Taiwan	2162	11-13	-	CIAS	-	10.8%
2009	Bakken et al.	Norway	3399	16-74	-	YDQ Scale	-	1.0%
2009	Lam et al.	China	1618	13-16	M>F	IAT Scale	-	0.6-10.2%
2009	Ni et al.	China	3557	18-22	-	IAT Scale	-	6.44%
2009	Yen et al.	Taiwan	2793	18-48	-	CIAS	-	12.9%
2011	Ghamari et al.	Iran	426	19-23	M>F	IAT Scale	21.1*	10.8%
2012	Durkee et al.	EU and Israel	11956	13-17	M>F	YDQ Scale	14.9	4.4%
2012	Shek and Yu	China	3580	10-17	M>F	IAT Scale	13.64	26.7%
2012	Poli and Agrimi	Italy	2533	14-21	M>F	IAT Scale	16.4	5.8%
2013	Ak et al.	Turkey	4311	15-19	-	IAT Scale	-	5.0%
2018	Sahu R. et al.	India	70	7-18	M>F	IAT Scale	-	12.85%

4.1. Detecting the problem

The problem with many addictions is that it can be hard to tell when a hobby has become more than just that, and taken a hold on you. It can also be hard to be honest with yourself when facing a list of symptoms, so make the extra effort now – we're going to go through a few.

- ❑ You spend more time with the computer than with people.
- ❑ You can't abide by your own boundaries.
- ❑ Lying to others about your computer usage.
- ❑ Feeling unable to live without the computer/internet.
- ❑ Misguided spending on your computer.
- ❑ Don't use the computer for recreational purposes.
- ❑ Track your progress.

4.2. Preventive Measures and Suggestions

- ❑ Parents should spend their leisure time with children and stop using internet.
- ❑ Families should take their wards once in a week outing, it will help them from internet abuse/addiction.
- ❑ Internet users are kept on Time zone vigil.
- ❑ All commercial web-centers should restrict minimum and maximum time.
- ❑ Institutions should educate students to not access unauthorized websites, social media on sharing and replying unwanted.
- ❑ Physical activities programs should be encouraged in the community level e.g., Yoga, Sports, Swimming etc.

5. ASSESSMENT AND DIAGNOSIS TOOLS

The measurement and diagnostic tools of Internet addiction and abuse have a great variance depending on measurement method and target population. There are worldwide assessment scales. Without a unified instrument or clinical approach to diagnosing IA it producing a correct interpretation is highly unlikely. [A more detailed overview is presented in below table]

Internet Addiction Assessment/Measurement/Diagnosis Tools								
Year	**Tools/Scales**	**Author**	**Country**	**S**	**Item**	**N**	**Research Base**	**(α)**
1995	Internet Addiction Disorder Diagnostic Criteria (**IAD-DC**)	Goldberg	USA	2	7	-	Substance dependence	-
1996	Internet Addiction Diagnosis Questionnaire (**IADQ**)	Young	USA	2	8	396	Pathological gambling	-
1997	Internet Related Addictive Behavior Inventory (**IRABI**)	Brenner	USA	2	32	563	Substance dependence	.87
1998	Internet Addiction Test (**IAT**)	Young	USA	5	20	496	Pathological gambling	.90
1999	Virtual Addiction Survey (**VAS**)	Greenfield	USA	2	10	17251	Pathological gambling	.74
2000	Problematic Internet Use Scale (**PIUS**)	Morahan-Martin & Schumacher	USA	2	13	277	Substance dependence	.87
2000	Internet Related Problem Scale (**IRPS**)	Armstrong et al.	Australia	4	20	52	Substance dependence	.62-.84
2001	Internet Addiction Questionnaire (**IAD**)	Wang	Australia	4	28	217	Cognitive behavior	.94
2001	Internet Addiction Questionnaire (**IAD**)	Nyikos et al.	Hungary	5	30	182	Pathological gambling	.92
2001	Korea Internet Addiction Scale (**K-Scale**)	Kang & Oh	South Korea	4	40	-	-	-
2001	Use, Abuse and Dependence on Internet Inventory (**UADI**)	Del Miglio et al.	Italy	5	80	244	Substance dependence	.76-.93
2001	Problematic Internet Use Diagnostic – Interview (**PIUD-I**)	Beard & Wolf	USA	2	8	-	Substance dependence	-
2002	Online Cognitive Scale (**OCS**)	Davis et al.	USA	7	36	211	Cognitive behavior	.94
2002	Generalized Problematic Internet Use Scale (**GPIUS**)	Caplan	USA	5	29	386	Cognitive behavior	.78-.85
2003	Internet Use Survey (**IUS**)	Rotunda et al.	USA	5	32	393	Substance dependence and Pathological gambling	.65-.90
2003	Chen Internet Addiction Scale (**CIAS**)	Chen et al.	China	4	26	844	Substance dependence & Pathological gambling	.93
2004	Internet Addiction Scale (**IAS**)	Nichols & Nicki	Canada	5	31	234	Substance dependence	.95
2005	Diagnosis Criteria of Internet Addiction (**DC-IA**)	Ko et al.	Taiwan	2	13	454	Substance dependence & Pathological gambling	-
2005	Thatcher's Problematic Internet Use Questionnaire (**TPIUQ**)	Thatcher & Goolam	South Africa	5	20	1795	Pathological gambling	.90
2007	Internet Over-use Scale (**IOS**)	Jenaro et al.	Spain	6	23	337	Pathological gambling	.88
2007	Excessive Internet Use Risk Scale (**SNUI**)	Kaliszewska	Poland	5	41	361	Cognitive behavior	.94
2007	Adolescent Pathological Internet Use Scale (**APIUS**)	Lei & Yang	China	5	38	1331	Cognitive behavior	.80-.94
2009	Internet user Assessment Screen (**IAS**)	Chow et al.	China	2	26	3523	Pathological gambling	-
2009	Adolescent Computer Addiction Test (**ACAT**)	Siomos et al.	Greece	5	20	1389	Pathological Gambling	.93
2009	Compulsive Internet Use Scale (**CIUS**)	Meerkerk et al.	Netherland	5	14	447	Substance dependence & Pathological gambling	.89
2009	Questionnaire on Internet-Related Experiences (**CERI**)	Beranuy et al.	Spain	4	20	404	-	-
2010	Internet Dependency Scale (**IDS**)	Gunuc & Kayri	Turkey	5	35	754	DSM-IV data, students opinions	.94
2010	Assessment for Computer and Internet Addiction Screener (**AICAS**)	Wölfling *et al*.	Germany	5	16	-	Substances dependence	-
2011	Internet Use Test (**IUT**)	Poprawa	Poland	6	22	6119	-	.79-.89
2011	Internet Usage Scale (**IUS**)	Monetti et al.	USA	4	22	947	Behavior attitude	.74
2012	**DRM 52** Scale of Internet Use	Xu et al.	China	5	52	5122	-	-
2013	Problematic Internet Entertainment Use Scale for Adolescents (**PIEUSA**)	Lopez-Fernandez et al.	Spain	7	30	1131	Substance dependence and pathological gambling	0.92

Year=Tool developed year; S=Point Scale; Items=Numbers in items in the tool/scale; N=Sample Size; α=Coefficient consistency

5.1. Internet policy: should be government regulated implications?

In the last years, a point has been made for regulating the Internet in order to prevent people from becoming addicted to it. In Asian countries, two kinds of approaches have been proposed to address this problem: a *shutdown system* or a *fatigue system* (Park & Ahn, 2010). In the shutdown system, a government can force the stoppage of online traffic at a specific time, thereby preventing users from using a particular online tool. This approach has been used in Thailand and South Korea to counter Internet gaming. Under the fatigue system, online game users are only allowed to play several hours in a row and after that there is a penalty. This system has been implemented by the government of China. Although well intentioned, and with the clear objective of protecting youth, the effectiveness and basic rights implications of these regulations are up to debate. Although government should not refrain from regulating the Internet at all, we believe that intervention on Internet freedom could create more problems than it tries to resolve. Furthermore, as already stated, any addiction is the result of an interaction between biological, psychological and environmental factors.

We cannot assume that the Internet by itself creates addiction. Instead, IA might be a manifestation in people who, given their bio-psychosocial antecedents, are addiction-prone individuals. Whichever effective policy to reduce rates of addiction cannot be focused on environmental issues only (either controlling Internet access/content or penalizing possession of drugs), but take an integral approach at the magnitude of the problem. Even though, it should be noted that any attempt at regulation cannot be generalized to every nation or culture. Support for prohibition or regulation hinges on the relative importance different individuals and societies place on the magnitude of a given problem. Appropriate Internet regulatory policy will depend on the societal structure and prevailing technology of each country.

6. DISCUSSION

Similar studies in the literature vary widely in terms of their rates of IAs because of using different samples, instruments, and socio–cultural contexts. After reviewing available research conducted in various countries, Young, Yue, and Ying (2011) concluded that the prevalence of Internet abuse generally ranged from 4.6% to 4.7% among adolescents, 13% to 18.4% among college students, and 6% to 15% among general population of the users. The rate found in this study is slightly lower than the general rate of adolescents. According to Hofstede's (2001) theory on cultural dimensions, people in collectivist cultures belong to strong extended network of family, friends, and relatives that protect them throughout their lives in return for their loyalty. Such intimate connectedness can supply social and emotional needs of youngsters and left a little room for the Internet to function as a source of need satisfaction. Although the recent Internet penetration rate in India (34.1%) is much smaller than those in highly–digitalized countries such as Brunei (94.6%), Japan (93.3%), South Korea (92.6%), Taiwan (87.9%), Hong Kong (87%), Singapore (83.6%) (Miniwatts Marketing Group, 2018), India ranked the second place of Internet users over the world after China. According to an App Annie. An Indian of internet usage with users on average spends close to 3 hours a day and has 78 apps on their phone, of which they end up using 43 monthly. They mostly used WhatsApp and downloaded Facebook app.

There are two major research survey shown that, how the addiction level is increasing day by day especially in Asian continents, this is the alarming signs to prevent future. Firstly, in survey carried out by IPSOS, 18,180 people were quizzed across 23 countries, to gauge their public attitudes towards technology. In the study, more than two-thirds of the people said they couldn't imagine life without Internet. In fact, India had the highest proportion of people at 82 percent, that's higher even than the UK with 78 percent, China's 77 percent, 73 percent in the US and 62 percent of Japanese. The rise of Internet-connected smartphone sales, lowest cellular data costs by Reliance JIO Telcom, Idea Cellular, Airtel in history are two important force multipliers. Besides, Indians downloaded over 6.2 billion apps through Google Play in their smartphone in 2016. Second one, the survey on 'Worst Internet Habits' commissioned by Telenor Group, shown that 65 per cent of Indians admit to being 'Internet addicts', 33 per cent of Indians also hate excessive selfie takers and 40% users Spreading rumors. The Telenor Group conducted Internet behavioral survey in four well internet connected South-East Asian countries across India, Thailand, Singapore and Malaysia. The outcome reveals that Asian continent is unified in many aspects; but furthermore illustrates only one of its kind country precise differences. In the past decade, Internet abuse

has become a growing concern that has impacted severally.

7. CONCLUSION

The study of IA is still in its beginnings; however, the last decade has seen an increased interest in the subject, with research pouring in data from different parts of the world. It is clear that IA leads to dysfunction in a range of life activities, such as time management, social relationships, work duties, and can even affect biological domains. Despite the growth in knowledge regarding IA, no consensus has been reached whether IA is a unique clinical entity or just the epiphenomenon of an underlying disorder. The problematic internet use which is uncontrollable and damaging is a growing concern. Several studies and numerous anecdotal media reports, suggest possible links between overuse of the internet by adolescents and young adults and negative health consequences such as depression, excessive daytime sleepiness, problematic alcohol use, or injury. On the basis of present scenario over use of internet can definitely disrupt ones academic, social, financial and occupational life.

Internet addiction can be called “mental illnesses”. Playing online game can make people happy during free time. People also can increase the relationship between friends by use of internet and people can make life easier by allowing banking, shopping and other online activities. It also provides entertainment through music and movies. But doing anything needs moderation otherwise it will be bad for people. As technology continues to grow at its current speed, and new applications become available on the Web, failure to acknowledge IA will permit its silent and endemic spread, affecting millions of people, especially children and youths. Mental health professionals should be aware of the spectrum of IA, and work towards implementation of preventive, diagnostic and treatment strategies.

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