Chapter 15
Treatment of Internet Addiction

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ABSTRACT
The birth of the Internet in 1969 has changed people’s lives immensely in the past 48 years. Over the years, this invention has brought people connection, information, communication, business, entertainment, and so forth; however, researchers have found the impact of the Internet’s byproduct, namely Internet addiction, in the past two decades as well. It was argued that Internet addiction might be detrimental to people’s mental and physical health. The problem is that Internet addiction is not clearly defined, nor has it been included in Diagnostic and Statistical Manual for Mental Disorders (DSM-5) by American Psychiatric Association. If the definition is not clear and the symptoms are varied, the treatment for Internet addiction would become an issue. In this chapter, the researcher will focus on different approaches to the treatment of Internet addiction based on research after reviewing the definitions, theories, causes, consequences, and symptoms of Internet addiction.

INTRODUCTION
The Internet was born on October 29, 1969, when an UCLA team led by Dr. Leonard Kleinrock, a distinguished Computer Science professor, sent the first message over the ARPANET (the computer network) to Stanford Research Institute (Kromhout, 2009; Modesti, 2009). Over the years, the world has changed enormously due to the development of the Internet. This invention has brought convenience, communication, globalization, connection, online shopping, online banking, e-commerce, Information, entertainment, and so on to people’s life all over the world. It has also precipitated cybercrimes, spam mails, phishing scams, data breaches, Trojan, virus, malware, hacking, and so forth to our world. The number of the Internet users has increased from 414,794,957 (6.8%) in 2000 to 3,424,971,237 (46.1%) in 2016 (Internet Live Stats, 2017). The top ten Internet users in the world are China, India, United States, Brazil, Japan, Russia, Nigeria, Germany, U.K., and Mexico in sequence (Internet Live Stats, 2017).

Since people’s high-tech products (e.g., laptop computers, smartwatches, tablets), social networks (e.g., Facebook, LinkedIn, Twitter, Instagram, YouTube), communication apps (e.g., Skype, LINE, WeChat, WhatsApp, Snapchat), emails (e.g., Google, Yahoo) all rely on the Internet, many people are addicted...
to the Internet without knowing it. Turkle (2012), a psychologist and an MIT professor, pointed out that we have sacrificed our conversation for mere connection with social media such as Facebook which has impoverished people’s relationship and stripped out essential elements of human contact. The Internet brings us closer to people far from us, but also takes us away from the ones sitting next to us (Turkle, 2012). Gaille (2015) described that 27% of people used Facebook in the bathroom, 82% of people spent more time online than anticipated; 20% of people woke up at night to check their Facebook; and 20% surface area of brain shrinkage occurred for long-term Internet addiction.

Despite the critiques of Facebook as addictive, promoting narcissism, interfering with face-to-face contact between loved ones, Mark Zuckerberg insisted that “it’s so clearly positive for people in terms of their ability to stay connected for folks…. Our mission is to connect every person in the world” (Grossman, 2014, p.40). On Facebook, Zuckerberg (2017) updated that approximately 1.9 billion people are in the online community now and 1.2 billion people are active using it every day, specifically more than 65 million small businesses use Facebook to connect with their customers nowadays. To build a global community online, Zuckerberg (2017) announced that 1.86 million people will be active on Facebook and 600 million on Instagram within three years; 1.2 billion people on WhatsApp and one billion on Messenger within 5 years; and more than 50 million people will be connected by internet.org within ten years.

In fact, the total number of social media users in the U.S. was 179.7 million in 2015 (Statista, 2016b). The total number of Facebook Users in 2016 by age groups was: 26.6 million for age 18-24, 33.2 million for age 25-34, 26.1 million for age 35-44, 23.2 million for age 45-54, 18.4 million for age 55-64, and 12.5 million for age 65 and over (Statista, 2016a). People between 25 and 34 years old are the top users. With this amount of Internet users, what should people do if they or their friends and family members are addicted to the Internet? The purpose of this chapter is to explore treatment for Internet addiction.

**BACKGROUND**

Internet addiction was defined as an impulse-control disorder that does not involve an intoxicant (Young, 1996). Beard and Wolf (2001) proposed that people who are preoccupied with the Internet, who are unable to control their use, and who are jeopardizing employment and relationships are Internet addicted. Based on Cheng and Li’s (2014) meta-analysis of 80 reports (consisting of 89,281 participants from 31 countries across seven world regions), approximately 6% of the global population (i.e., 420 million people) was addicted to the Internet. Internet addiction has appeared in every age group, with 73% between age 13 to 17, 71% between age 18 to 24, 59% between age 25 to 34, 40% between age 45 to 54, 39% between age 55 to 64, and 44% above 65 years old (Addiction Facts, 2017). Approximately 64% females and 55% males were caught in the web (Addiction Facts, 2017).

In the past two decades, many researchers have found relationships between Internet addiction and risk factors, such as depression (Akin & Iskender, 2011; Şahin, 2014; Young & Rodgers, 1998), psychopathology (Koc, 2011), self-compassion (Iskender & Akin, 2011), shyness (Ayas, 2012; Doğan & Kaya, 2016), personality traits (Celik, Atak, & Basal, 2012), social networks (Cam & Isbulan, 2012; Simsek & Sali, 2014), psychological well-being (Cardak, 2013), loneliness (Demirer, Bozoglan, & Sahin, 2013; Pontes, Griffiths, & Patrao, 2014), social anxiety (Holm, 2013), drug use (Kurt, 2015), attitudes (Ilhan, Çelik, Gencioğlu, & Çiftaslan, 2016), and social skills (Karimzadeh, 2015), etc. Others have explored the symptoms, evaluation, and treatment of Internet addiction (e.g., Beard, 2011; Caldwell &