

Holistic Technological Addiction of Modern Age: Phubbing Modern Çağın Bütünsel Teknolojik Bağımlılığı: Phubbing

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Abstract

Recently, technology addiction and its types are one of the biggest problem areas of today's people. These types of issues have primarily gained a new dimension with the development of the smartphone while internet and gaming addiction and social media addiction. Individuals have become able to access all technological services at any time thanks to their smartphones. In the following period, a new problem area, called smartphone addiction, has been created with the improvements in smart phone technology and the intensity of usage of individuals. After these developments, it has been seen that smartphone addiction affects the social communication of people negatively and individuals focus on their smartphones instead of communicating in social environments. For this situation, which is difficult to explain by smartphone addiction, the concept of phubbing, which consists of the words phone and the word snubbing, has been developed. In this study, it is aimed to contribute to the related literature by explaining the components and dynamics of phubbing concept, internet addiction, game addiction, social media addiction, smartphone addiction, fear of abductions, nomophobia and netlessphobia.

Keywords: Addiction, technology, smart phone, social development, phubbing

Öz

Son zamanlarda teknoloji bağımlılığı ve türleri günümüz insanların en büyük sorun alanlarından birini oluşturmaktadır. Bu sorun türleri öncelikli olarak internet ve oyun bağımlılığı iken, akıllı telefonun gelişimi ile yeni bir boyut kazanmıştır. Bireyler akıllı telefonları sayesinde tüm teknolojik hizmetleri her an ulaşabilir hale gelmişlerdir. İlerleyen süreçte akıllı telefon teknolojisiindeki gelişmelere ve bireylerin kullanım yoğunluklarının artması ile akıllı telefon bağımlılığı olarak kavramsallaştırılan yeni bir sorun alanı oluşmuştur. Yakın zamanda ise akıllı telefon bağımlılığı ile açıklanmakta zorlanılan bu durum için İngilizce phone (telefon) ve snubbing (yok sayma, kötüye kullanma) kelimelerinden oluşan Phubbing kavramı ile ifade edilmeye başlamıştır. Bu çalışmada phubbing kavramının bileşenleri ve dinamikleri olan internet bağımlılığı, oyun bağımlılığı, sosyal medya bağımlılığı, akıllı telefon bağımlılığı, gelişmeleri kaçırma korkusu, nomofibi, netlessfobi kavramları açıklanarak ilgili alan yazına katkı sağlanması amaçlanmıştır.

Anahtar sözcükler: Bağımlılık, teknoloji, akıllı telefon, sosyal gelişim, phubbing

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TECHNOLOGY has penetrated into all areas of human life today (Meral 2018, Pen-dergrass 2017, Anlı and Taş 2018). Although innovations brought by technological develop-ments have facilitated people's daily lives and contributed to people to adapt to chan-ging world conditions (Chayko 2008, Çakır and Oğuz 2017, Davey et al. 2018), it has revealed technology addiction, which is one of the biggest problem areas of the new generation (Demirci et al. 2014, Pugh 2017, Wang et al. 2017). Technology addiction that causes symptoms like substance addiction (deprivation, desire to reach, etc.) has manifested itself in various areas such as the Internet, social media, and computer ad-diction. Especially, with the emergence of smartphones, the type of addiction accompa-nied by the symptoms of technology-based addiction types is called phubbing.

One of the objectives of this study is to explain the concept of phubbing theoreti-cally and define the factors related to this (Karadağ et al. 2016, Al-Saggaf et al. 2018). In addition, by examining the results of some studies on the effects of phubbing on indivi-duals, the study aims to draw attention to the possible negative effects on adolescents and other individuals in developmental period and make contributions to the related literature.

Types of addiction brought by technological developments

The developments in computer and internet technology have led to increased commu-nication among individuals in many parts of the world and faster access to information (Chayko 2008, Karadağ et al. 2015). However, these advances have brought about new problem areas (Nazir and Pişkin 2016). While the problems emerged as addiction to computer and playing computer games in the early days (Grüsser et al. 2006, Horzum et al. 2008, Weinstein 2010, Taylan and Işık 2015, Anlı and Taş 2018, Hazar et al. 2018), with the arrival and development of social media tools (facebook, twitter, Instag-ram etc.), social media addiction has been added to the already existing types of addic-tion (Leung 2004, Malita 2011, Andreassen et al. 2012, Lee 2012, He et al. 2017, Oberst et al. 2017, Aktan 2018, Egüz et al. 2018).

Nowadays, the provision of opportunities provided by the Internet and social media tools combined with smartphones have caused more frequent use of these devices com-pared to other technological devices. According to the 2019 report of We Are Social, which regularly broadcasts data from the digital world, the rate of internet use on the phone has increased by 48% over the last five years (Kemp 2019). According to January 2019 data of the same report, while the average internet use is 48 hours on all devices, almost half of this use is realized through smartphones. Based on the intensive use of smartphones, two new types of addiction have been identified: smartphone addiction and phubbing. The term 'phubbing' first appeared in the Australian National Dictio-nary in 2013 and was defined as lack of contact with other individuals in the social envi-ronment due to looking at your smartphone (Nazir and Pişkin 2016), and it comp-rises a more comprehensive definition than the definition of smartphone addiction. This term was derived from the English words phone and snubbing (ignoring, abuse). In the fol-lowing sections, the dynamics of the term phubbing will be explained.

Gaming addiction

The development of the internet and technology has paved the way for the development and introduction of online content products to market. Individuals can both have fun

and participate in some educational processes with these online content products. The games that teach things while entertaining have started to shift in a different direction in terms of content and type with further advances in technology (Çankaya and Ergin 2015). The gradual increase in the time spent playing games in the virtual world has caused this phenomenon to become pathological (Kiran 2013, Aydoğdu, Karaaslan 2015). The need to play games has increasingly been met through the virtual environment and a new problem called gaming addiction has emerged (Ayas and Horzum 2017).

Gaming addiction is a kind of addiction that is brought by technology addiction. In previous studies, gaming addiction was defined as a form of internet addiction (Young et al. 1999). Internet addiction and game addiction are in constant relationship with each other (Ng et al. 2005, Kim et al. 2010, Günüş 2015). The addicted individual constantly thinks about playing online games and spends most of his/her time playing online games (Brunborg et al. 2014, Andreassen et al. 2016). This situation harms individuals' social relations.

Gaming addiction has been stated to cause obsessions in individuals (Andreassen et al. 2016), decrease academic achievement, and increase depression (Lemmens et al. 2009, Festl et al. 2013, Brunborg et al. 2014). Another study (Ferguson 2015) reported that aggressive attitudes developed in individuals with this addiction and attention deficit development and reduced prosocial behaviors were observed. Oskembay et al. (2016) stated that excessive computer games caused psychological trauma in individuals. As a result, excessive engagement in computer and playing online games, as also stated in the above study, has a lot of negative effects on individuals.

Internet addiction and netlessphobia

Thanks to internet technology, people have got accustomed to using their computers for many activities such as communication, shopping, and accessing various types of information. Later, the number of activities carried out by individuals on the Internet has increased and internet use has become more common among people. Individuals have become unable to control the level of their internet use, and as a result, a type of addiction defined as internet addiction has developed (Goldber 1996, Caplan 2002, Shapira et al. 2003). Individuals with internet addiction are observed to exhibit behaviors such as being unable to get away from the Internet, being unaware of the time spent on the Internet, obsessions about internet use, and impulsive behaviors (Young, 1996 Young 1998, Beard and Wolf 2001, Wolak et al. 2003, Young 2004).

In the literature, various criteria for the diagnosis of internet addiction have been suggested by researchers. First, Goldber (1996) developed criteria for internet addiction based on substance addiction criteria. Then, Young (1996) and Griffiths (1999) described some addiction-indicating behaviors such as excessive mental activity, increase in the internet connection time, unsuccessful attempts to quit, deprivation behaviors, decreases in school and work success, and sudden emotional changes when unable to access the Internet. Based on these studies, Beard and Wolf (2001) updated all diagnostic criteria related to internet addiction such as excessive use of the Internet, more time spent on the Internet than planned, loss of time perception while on the Internet, inability to control internet use, irritability and aggression when deprived of the Internet.

In addition to developing diagnostic criteria, various measurement models have been designed to understand the dynamics of internet addiction. Douglas et al. (2008) developed a model which was titled ‘intrinsic motivations and requirements’. In this model, they stated that the attractive aspects of the Internet for individuals cause the development of internet addiction in them, and therefore, these aspects should be noted. In another study (Tao et al. 2010), a multiple diagnostic model was laid out for internet addiction by distinguishing between symptom criteria such as functional impairment, duration, daily unnecessary use, and exclusion. In most studies, although internet addiction has been described as an addiction type, some researchers prefer the problematic internet use concept (Davis 2001, Caplan 2002, Shapria et al. 2003) according to the content used and the time spent on the Internet.

In studies on internet addiction, excessive internet use has been reported to increase depression (Kraut et al. 2002, Kim et al. 2006, Jan et al. 2008, Akin and Iskender 2011, Liang et al. 2016, Dieris-Hirche et al. 2017) and loneliness (Ang et al. 2012, Durualp and Çiçekoğlu 2013, Yao and Zhong 2014, Puri and Sharma 2016, Çakır and Oğuz, 2017) in individuals and to reduce social interactions (Suhail and Bergees 2006). In addition, a negative relationship exists between internet addiction and individuals’ sleep and eating habits, their hopes (Şimsek et al. 2017) and academic achievements (Young 1999, Custer 2016).

In addition to the negative effects of internet addiction on all developmental areas of people, it also causes different problem areas (netlessphobia, nomophobia, fomo, etc.). Today, the term “Netlessphobia” is defined as a new problem area under the title of internet addiction. Netlessphobia is conceptualized as the fear of internet deprivation in individuals (Güney 2017). Netlessphobic individuals are observed to look for internet connection wherever they go, cannot endure the lack of the Internet even for short durations, think life may come to a halt when the Internet is unavailable, and have fear of missing out (Öztürk 2015). As a result, internet addiction and related addiction types have negative effects on people.

Social media addiction and fear of missing out

Today, social media is a source that is used to access information and meet various social needs of individuals in social life. Social media, which involves communication, exchanging information, social networking, games, and many other similar elements, is one of the biggest mass communication tools of our age (Aktan 2018). Social media addiction, which is handled in the context of internet addiction, is a type of addiction that occurs as a result of the excessive use of social networking sites with the mass media tools available on the internet. In other words, social media addiction is defined as over-use of social media, failure to stop the desire to use it, experiencing physical and emotional problems when the individual cannot use social media, and the damage given to daily activities and social relations (Griffiths and Szabo 2014, Ryan et al. 2014, Van den Eijnden et al. 2016). Within this system, there are many factors supporting the addiction that motivate the individual (increasing the number of followers), reinforce the behavior (likes), and entertain the person (group games, video sharing) (Balci and Ayhan 2007, Küçük Kurt et al. 2009). Therefore, social media addiction can develop rapidly in individuals.

Social media addiction has accelerated rapidly with the development of smartphones. Individuals who are constantly engaged in their phone can follow social media tools.

In other words, while individuals needed a computer and internet connection to use social networking sites previously, nowadays they have the opportunity to access all technological facilities with a single device thanks to their smart phones. During this process, individuals have ended up preferring online communication and sharing rather than physical, face-to-face communication and sharing as a result of making the virtual world an integral part of their real life. Studies conducted so far report that social media addiction is positively correlated with depression (Pantic et al. 2012, Kırcaburun 2016, Woods and Scott 2016), narcissism (Andreassen et al. 2016), anxiety (Karaiskos et al. 2010, Meena et al. 2018), internet addiction (Kuss et al. 2016), loneliness (Sharabi and Margalit 2011, Bonetti et al. 2010, Savcı 2016), fear of missing out (Oberst et al. 2016), while it is negatively correlated with well-being (Brooks 2016), self-respect (Wilson et al. 2010), sleep patterns (Woods and Scott 2016), and life satisfaction (Balcı and Kocak, 2017) and academic achievement.

Another concept defined in this context along with social media is “fear of missing out” (FOMO), which is a phenomenon that strengthens social media addiction in individuals. This concept is defined as the fear of being unaware of the constantly followed social media updates and fear of missing out (Fox and Moreland 2015). Individuals who have this fear constantly check their tablets and phones due to concerns whether they have missed anything happening or circulating on social media at that moment (Aydın 2018). In addition, due to this fear, individuals’ social media addiction becomes more powerful in the coming days. In a study on this topic, individuals who have this fear were stated to feel themselves alone in daily life (Dossey 2014). Another study (Hoşgör et al. 2017) reported that individuals with this fear spend at least seven hours a day on social media and worry that they may run out of battery.

Smartphone addiction and nomophobia

Before the arrival of smartphones, people often used their mobile phones to make phone calls, send text messages, and utilize simple communication software (De Pasquale et al. 2015, Oğuz and Çakır 2017). Today, with the introduction of smartphones, people have easy access to technological elements (Tekin et al. 2014, Randler et al. 2016, Çelik et al. 2017, Soni et al. 2017). For example, through their smartphones, people can connect to the Internet, play computer games, and constantly follow social media.

Although smartphones have turned into a communication and entertainment tool, with the excessive use of smartphones, a new type of addiction, defined as smartphone addiction, has been identified (Geser 2006, Powers 2010, Kwon et al. 2013, Meral 2018). In studies conducted on smartphone addiction, this addiction type has been determined to lead to social anxiety (Van Deursan et al. 2015, Yılmaz et al. 2015), fear of missing out (Hoşgör and Tandoğan 2017, Franchina et al. 2018), nomophobia (Adnan and Gezgin 2016, Sırkaya 2018), phubbing (Karadağ et al. 2015, 2016, Davey et al. 2018), attachment problem (Yücelten 2016), shyness (Deniz 2014), loneliness (Çakır and Oğuz 2017, Çelik et al. 2017), depression (Demirci 2015), and sleep problem (Landler et al. 2016, Soni et al. 2017).

The use of smartphones at the level of addiction has led to the emergence of the term nomophobia, which can also be defined as a symptom. Nomophobia is defined as the state of anxiety and fear of individuals relating to the possibility to be separated from their phones for any reason (King et al. 2013, Bragazzi and Puente 2014). In other

words, nomophobia is the anxiety that people feel when they cannot reach their smartphones or when they cannot communicate using this device (Erdem et al. 2017). This concept first emerged as a result of a study conducted by the Postal Service in England in 2008. The study reported that 53% of respondents felt uncomfortable when they lost their smartphones, when they run out of battery or when they were out of coverage (Bahi and Deluliis 2015).

The concept of nomophobia is explained by the theory of extended self. One of the assumptions of this theory is that the individual sees external objects and personal belongings as part of his/her self (Belk 1988). According to this approach, the concept of extended self is a notion that does not only involve things seen as “I” but also things seen as “mine”. The individual can see the objects that he/she owns as part of his/her ‘self’ and this leads to the emergence of the concept of extended self. In a study that supports this view (Han et al. 2017), nomophobia has been handled according to the extended self-theory and described as anxiety to stay away from the smartphone. Consequently, the attachment of a person to his/her smartphone will lead to nomophobia (Arpaci et al. 2017, Han et al. 2017). Nomophobic individuals exhibit behaviors such as constantly checking the inbox for new text messages, feeling anxious or nervous in areas where they are out of coverage or have limited coverage, leaving the phone open for 24 hours, going to bed with their smartphone (Bragazzi and Pente 2014). This leads to an increase in the time people spend on their smartphones and has a strong effect on smartphone addiction.

Phubbing addiction and associated factors

Phubbing was derived from the combination of English words “phone” and “snubbing” (ignoring, abusing) (Nazir and Pişkin). In other words, the term is defined as an individual’s attention to his/her smartphone while communicating in social environments (Karadağ et al. 2015, 2016). The concept of phubbing appears to have a multi-dimensional structure as it involves a number of addiction types such as social media, the Internet, phone and playing games beyond the phone addiction (Karadağ et al. 2016, Barrios-Borjas et al. 2017, Al-Saggaf et al. 2018). In addition, individuals who exhibit these addictive behaviors are called ‘phubber’. This concept has been translated into Turkish as ‘sosyotelizm’ by Karadağ et al. (2016) and defined as the individual’s engagement in his/her smartphone in a social environment and refusal to join any conversation.

Phubbing behaviors adversely affect the individual's social development and cut the communication and interaction connection of the individual in social environments (Yılmaz et al. 2015, Krasonova et al. 2016, Gömleksiz and Fidan 2017, Luk et al. 2018). In other words, phubbing appears to be individuals’ focus on their smartphones in social environments rather than joining conversations by being indifferent to the environment (Roberts and David 2016, Akbar et al. 2018). Nazir and Pişkin (2016) defined phubbing as “a technology connecting the world but separating people” to emphasize the seriousness of the subject and the negative impact of phubbing on individuals. In another study (Krasonova et al. 2016), phubbing behaviors were emphasized to have a toxic effect on the social communication of individuals and the study pointed out the danger of this addiction type on interpersonal relationships. Aagaard (2019) described the concept of phubbing as the seizure of people by digital devices.

Youarti and Hidayah (2018) stated that today's young people faced the danger of phubbing, they unintentionally gave harm to themselves due to excessive use of smartphones and that they needed studies that would raise their awareness on this issue. In a study conducted by Karadağ et al. (2015) conducted on university students' phubbing behaviors, the students who had this addiction were found to exhibit a high level of smartphone, social media, and short message (SMS) addiction. In another study conducted on university students (Gömleksiz and Fidan 2017), the authors concluded that there was a positive relationship between the phubbing behaviors and the frequency of smartphone use, social media, and app use. In another study conducted on adolescents (Franchina et al. 2018), a positive relationship was found between phubbing behaviors and fear of missing out.

In the majority of studies on phubbing, among the leading factors that cause this behavior have been reported to be smartphone and internet addiction (Karadağ et al. 2016, Xu 2017, Yan and Wan 2017, Munatirah and Anisah 2018). In addition, some modeling studies have shown that many factors are effective on phubbing (Al-Sggaf et al. 2018, Andrea et al. 2018, Davey et al. 2018). Furthermore, Brkljačić et al. (2018) found a positive relationship between high school students' phubbing behaviors and the time they spent on the Internet.

Effects of phubbing behavior on individuals

There are few studies in the literature on phubbing, which has been the focus of studies recently. In a study investigating the causes of phubbing behaviors in adolescents (Davey et al. 2018), the main determinant of this addiction type was found to be intensive smartphone use. The study, as other studies did, reported that individuals who exhibited phubbing behaviors had high levels of depression. Another study (Al-Saggaf et al. 2018) concluded that the life satisfaction, relationship quality, and satisfaction levels of individuals who exhibited phubbing behaviors were negatively affected. A study conducted on individuals aged between fourteen and twenty-one (Balta et al. 2018), a positive relationship was found between phubbing behaviors and fear of missing out and problematic social media use.

In an experimental study by Chotpitayasunondh and Douglas (2018), increased phubbing behaviors were stated to have a significantly negative effect on the sense of belonging, subjective well-being, and perceived communication quality and satisfaction. In the study conducted on adolescents aged between sixteen and eighteen, adolescents exhibiting phubbing addiction were determined to be less satisfied with their lives and feel alone more than other individuals (Błachnio and Przepiorka 2019). A study conducted by Aagaard (2019) in a college in Denmark found that the subjects identified phubbing as disrespectful and useless behaviors, however that they behaved inconsistently in exhibiting these behaviors. In a study conducted on undergraduate students in Malaysia, individuals with a high level of phubbing were observed to also have a high level of loneliness (Phing et al. 2019).

Studies have shown that phubbing adversely affects not only adolescents and young people but also the relationships of married individuals, their satisfaction from the marriage, couple relationships, and intra-family communication. Roberts and David (2015) investigated the effects of phubbing behaviors on couples' relationship satisfaction and found that this type of addiction had negative effects on the quality of the relationship

between couples. In addition, the authors stated in the same study that phub-bing adversely affected personal well-being and triggered depression in individuals. Another study (Carjaval 2017) pointed out that phubbing behavior undermines intra-family communication processes and that it caused parents to neglect their children more. Du et al. (2017) stated that individuals frequently controlled their smartphones and that they did this while walking at the cost of risking their life. In another study (Barrios-Borjas et al. 2017), phubbing addiction was claimed to increase the desire to use their smartphone in individuals and cause nomophobia, which is defined as the fear of phone deprivation. In a study conducted by Hanika (2015) on graduate students from the communication department, they concluded that students did not have information about phubbing, they did this behavior involuntarily, and that they developed social media addiction due to the fear of missing out. In a study conducted on individuals aged between nineteen and twenty-nine, individuals with phubbing behaviors were observed to have low levels of psychological well-being, while their anxiety, insomnia, and depression scores were high (Garrido and Delgado 2017).

Wang et al. (2016) investigated the effect of phubbing behavior on the level of depression between couples and concluded that phubbing behaviors had negative effects on the relationship satisfaction between couples and that partner phubbing was a great risk factor for depression. González-Rivera et al. (2018), in their study on 392 couples in Spain, concluded that couples with high phubbing behaviors had higher levels of stress, anxiety, and depression, and had lower levels of psychological well-being. In a modeling study on the risk factors of phubbing, trait anxiety and neurotic behaviors were found to be positively and strongly correlated (Guazzini et al. 2019). Another study (Brkljačić et al. 2018) found that self-control levels of high school students who exhibited phubbing behaviors were low and some psychological disturbances could occur with the increase in the time spent on the internet

Discussion

Today, children, young and old people, regardless of their age, use smartphones at any moment in their lives. However, smartphone technology is a source of many problems as well as facilitating the lives of people (Chayko 2008, Çakır and Oğuz 2017, Davey et al. 2018). Individuals use their smartphones for multiple purposes such as following social media, playing games, and internet access in addition to getting into touch with others (Haug et al. 2015). This has caused people to try to establish social relations without leaving their homes and handle all their daily activities through their smartphones (banking, shopping, etc.). The point that intensive phone use reached has become a threat to humanity (Krasonova et al. 2016). This can lead people to spend more time with their smartphones instead of getting out and communicating with people and focusing on their smartphones even in social environments.

This increase in the levels of individuals' smartphone use has turned into an important problem that prevents them from communicating in social environments even when they are together with other people. For this reason, a new definition was needed because definitions such as computer addiction, smartphone addiction, or social media addiction were not enough to explain this phenomenon. This new concept is called phubbing. Phubbing is explained as the state of individuals' inability to communicate with other people due to their engagement in their smartphones in social environments (Karadağ et

al. 2015, 2016). It is noteworthy that this concept has been named as social neglect or mobile blindness in some sources in the literature. However, the concept of phubbing is a multidimensional concept that is beyond smartphone addiction which combines social media, internet, phone, and gaming addiction. Given the results of the studies and the theoretical knowledge analyzed above, it is noteworthy that the social communication ties of the individuals who have this dependency are lost.

According to the literature, the most effective factor in phubbing addiction is the use of smartphones (Karadağ et al. 2015, Xu 2017, Yan and Wan 2017). Due to the technological developments in smartphones, all the factors that have an effect on phubbing (the Internet, social media, games, etc.) provide people with opportunities to have access to all the opportunities. This situation causes individuals to focus on their smartphones instead of communicating with people around them while they are in a social environment and it negatively affects their social communication. Although individuals describe these phubbing behaviors as disrespectful and useless attitudes (Phing et al. 2019), people's insistence in sustaining this behavior is a sign that shows how negative this situation has become.

Conceptualized as a new type of addiction, phubbing appears to bring about new areas of concern in individuals such as fear of missing out, fear of cellphone deprivation (nomophobia), and fear of internet connection deprivation (netlessphobia) (Balta et al. 2018, Ang et al. 2019, Barrios-Borjas et al. 2017, Hanika 2015). Excessive smartphone use which is the main determinant of phubbing addiction increases even more due to the above-mentioned concerns (King et al. 2013). Individuals cannot stay away from their smart phones due to these concerns and can exhibit phubbing behaviors due to the fear of missing out even in their social environments (Güney 2017, Van Deursan et al. 2015, Barrios-Borjas et al. 2017). As can be understood from the results of studies and the theoretical background, phubbing addiction triggers new problem areas in individuals and it is also affected by these problem areas that it has brought about (King et al. 2013, Van Deursan et al. 2015, Barrios-Borjas et al. 2017).

Phubbing is a type of addiction that has more negative effects than other types of addiction (Nazir and Pişkin 2016, Krasonova et al. 2016). This phenomenon negatively affects initiation and sustainment of interpersonal relationships, the quality of relations, and the emotional ties between family members, and also has an adverse effect on the ability of children, adolescents, and young people to establish communication with others (Wang et al. 2016, González-Rivera et al. 2018). Moreover, individuals exhibiting phubbing behaviors cannot communicate with other individuals because they focus heavily on their smart phones in social environments. This is similar to Piaget's pre-process period characteristics, in which a social structure emerges, where egocentric features such as parallel play and collective monologue are exhibited. In other words, individuals who are addicted to phubbing live in their virtual worlds, even if they appear to be joining a social environment. This process will lead to the formation of egocentric and socially isolated human clusters with reduced communication with the real world that usually prefer to communicate more in the virtual world.

Conclusion

The results of research on phubbing report that this addiction type has a negative effect on adolescents, family members, social relations, and couple relationships (Al-Saggaf et

al. 2018, Błachnio and Przepiorka 2019, Barrios-Borjas et al. 2017, Guazzini et al. 2019). Considering that this type of addiction, which interferes with and decreases the quality of social activities and interpersonal communication of the individuals considerably (Aagaard 2019, Nazir and Pişkin 2016), can become more widespread with the increasing technological developments, it is apparent that the technology literacy education in this subject and awareness studies (Afdal and et al. 2019) are needed more. As stated in the 2019 report of 'We Are Social', considering that the use of the internet through smartphones has doubled in the last five years, it is thought that focusing on education that involves control over screen time and improving social skills will be beneficial.

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