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## PHONOHOLISM, SMOMBIE AND NOMOPHOBIA: EMERGING CONCEPTS THAT CHARACTERIZE PROBLEMATIC MOBILE PHONE USE BY YOUNG PEOPLE

**A b s t r a c t.** Smartphones offer a vast range of possibilities, keep people actively involved in building relationships with others. These devices have changed the way we consume various kinds of content, spend our free time, use the Internet, shop, or watch movies. Thanks to smartphones, new ways of communication and building relationships have emerged. They were supposed to serve mainly as facilitating communication but with time they started to create the surrounding reality. While the smartphone offers great opportunities to innovate, learn and stimulate creativity, there is evidence of negative consequences for the mental health of users.

The article addresses the problem of problematic mobile phone use by young people. The danger of becoming dependent on a mobile phone was pointed out and the specificity of phonoholism as a new form of behavioral addiction was presented. First, the symptoms of excessive smartphone use will be presented along with dimensions and the reasons why people use them so often. Then, issues related to problematic mobile phone use will be presented, such as prevalence, questionnaire methods and consequences. Finally, the author discusses the risk factors of excessive use of smartphones.

**Keywords:** problematic mobile phone use; excessive smartphone use; phonoholism; smombie; nomophobia.

### INTRODUCTION

Smartphones absorb young people's attention to such an extent that they pose a threat to themselves and others. More and more "smartphone zombies" walk the streets. They can be found everywhere: in shopping malls, restau-

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rants, university corridors, and even at pedestrian crossings. The person who walks staring at the screen of their phone, ignoring the surroundings, has got a name: “smombie”. This neologism was introduced in 2015, it was created by combining the words: smartphone and zombie. People who, due to the distraction caused by operating a smartphone, became the heroes of various films disseminated on social media<sup>1</sup> were called “smombs”. In the Dutch city of Bodegraven, traffic lights were installed on the pavement to protect pedestrians staring at their smartphones. A similar solution appeared in Augsburg, Germany, where LED lights in the roadway warn against an oncoming tram. In Sweden, an unusual sign saying “Caution smombie” appeared on the streets of many cities, and in Chinese Chonking a special route was created on the sidewalk for people who want to write text messages or use smartphones while walking. Increasingly, city authorities are testing various solutions to protect modern smartphone users from the dangers of inattention.

In recent years, we have been seeing a dynamic increase in the number of people using new technologies. Estimates for 2020 are 6 billion smartphone users worldwide. In North America, the UK, and Canada, the proportion of the adult population using smartphones is 77%, 70%, and 66% respectively. In October 2018, the prevalence of these devices in Poland was 68%.<sup>2</sup>

The smartphone is an invaluable source of information and entertainment for the young generation. Many of them cannot imagine spending even one day without it. They keep their smartphone next to their bed, browse the internet during meals or even while using the toilet. Unfortunately, such a huge reliance on mobile devices causes an addiction that is dangerous to health – phonoholism.

## 1. RECOGNIZING A PROBLEMATIC MOBILE PHONE USE

While there are no formal diagnostic criteria for a disorder characterised by excessive patterns of mobile phone use it is becoming increasingly clear that excessive mobile phone use can cause maladaptive behavioural difficul-

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<sup>1</sup> Marek Motyka, “Pokolenie smombów: charakterystyka i typologia,” *Przestrzeń Społeczna (Social Space)* 1(2018): 169-200.

<sup>2</sup> CBOS, “(Nad)używanie smartfonów. Komunikat z badan,” *cbos.pl*, no 157 (2018), accessed December 20, 2020; Lydia J. Harkin and Daria Kuss, “My Smartphone Is an Extension of Myself: A Holistic Qualitative Exploration of the Impact of Using a Smartphone,” *Psychology of Popular Media* 10, no. 1 (2020).

ties seen in other behavioural addictions. The current ICD-10 and DSM-5 classifications do not include any disorders related to a problematic use of technology. Only internet gaming disorder was included as a condition requiring a further analysis of DSM-5. However, the inclusion of gambling disorder as the first “behavioural addiction” may prove to be a precursor to the eventual inclusion of mobile phone use disorder or the broader construct of internet or screen-device addiction/abuse.

There are many terms in the literature that define a problematic or risky mobile phone use. In Poland, people dealing with this issue propose that the diagnosis be based on the diagnostic criteria of internet addiction. “Addiction to a mobile phone” is described as an incorrect, dysfunctional way of using the device, characterized by at least five of the following symptoms:

1. Strong desire to use a mobile phone, make phone calls or send text messages, which manifests itself in persistent/constant thinking about the above-mentioned activities.
2. The need for more and more frequent phone calls and extending their duration, increasing the number and frequency of SMS messages sent.
3. Repeated unsuccessful attempts to stop using the mobile phone or to limit its use only to calling or sending text messages.
4. Withdrawal symptoms, such as anxiety, depression related to attempts to stop or reduce the number and time of calls made on the phone.
5. Making increasingly longer conversations and sending many more SMS messages than originally assumed.
6. Occurrence of financial, professional, social and family problems caused by mobile phone use.
7. Lying to family members and friends about the time spent doing an activity involving a mobile phone (calls, texts) and related costs.
8. Using a mobile phone as a way out from real problems or to improve the malaise associated with loneliness, anxiety, depression or guilt.<sup>3</sup>

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<sup>3</sup> Ewa Krzyżak-Szymańska, *Adaptacja i walidacja narzędzia do pomiaru stopnia zagrożenia problematycznym użytkowaniem telefonu komórkowego przez młodzież*. Katowice: Górnośląska Wyższa Szkoła Handlowa, 2016; Beata Pawłowska and Emilia Potembska, „Objawy zagrożenia i uzależnienia od telefonu komórkowego mierzonego Kwestionariuszem do Badania Uzależnienia Od Telefonu Komórkowego,” *Current Problems of Psychiatry* 12, no. 4 (2011): 443–46; Katarzyna Warzecha, „Charakterystyka zjawiska ryzykownego i problemowego korzystania z Internetu i telefonów komórkowych przez młodzież szkół podstawowych,” *KBPN*, accessed December 21, 2020, [https://www.kbpn.gov.pl/portal?id=15&res\\_id=8591886](https://www.kbpn.gov.pl/portal?id=15&res_id=8591886).

When identifying the problem, it is worth paying attention to the following areas proposed by Lin<sup>4</sup>:

Incorrect smartphone usage pattern:

- preoccupation with using a smartphone all day long
- failure to limit smartphone use
- increase in the frequency of smartphone use
- developing mood disorders, anxiety or irritation when not using a smartphone
- using it longer than originally planned
- unsuccessful attempts or an intrinsic desire to stop or limit smartphone use
- extending the time spent on using a smartphone and/or using it excessively
- continued excessive smartphone use despite serious somatic and psychological problems associated with it.

Functional impairment:

- excessive use of a smartphone related to serious, recurring physical or psychological problems
- using it in physically dangerous situations, e.g. when crossing the road or driving a car
- threat or loss of important social relationships, work, interruption of study due to smartphone use.

Regardless of the perspective, specialists agree that the problem can be discussed when the behavior related to the mobile phone use disrupts the life, results in unsuccessful attempts to control and manifest with a persistent need to use.<sup>5</sup>

China was the first country to notice the problem of excessive mobile phone use. To date, several tools have been developed to study this phenomenon. These include: Mobile Phone Problem Use Scale for Adolescents (MPPUSA), Smartphone Addiction Scale (SAS), Smartphone Addiction Inventory (SPAI), Smartphone Addiction Proneness Scale (SAPS), Text-Message Dependency Scale (TMDS), Problem Cellular Phone Use Questionnaire (PCPU-Q), Excessive Cellular Phone Use Survey (ECPUS), Phone Involve-

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<sup>4</sup> Trisha T.C. Lin, Yi-Hsuan Chiang, and Qiaolei Jiang, “Sociable People Beware? Investigating Smartphone Versus Nonsmartphone Dependency Symptoms among Young Singaporeans,” *Social Behavior and Personality* 43, no. 7 (2015): 1209–16.

<sup>5</sup> Reza N. Kuhdasht, Zahra Ghayeninejad, and Naser Nastiezaie, “The relationship between phone dependency with psychological disorders and academic burnout in students,” *Journal of Research & Health* 8, no. 2 (2018): 189–95.

ment Questionnaire (MPIQ), and Kwestionariusz do Badania Uzależnienia od Telefonu Komórkowego (KBUTK).<sup>6</sup> Particularly noteworthy is the Polish adaptation of the Mobile Phone Problem Use Scale for Adolescents done by Ewa Krzyżak-Szymańska.<sup>7</sup> It includes 26 items, assessed on a 10-point scale from 1 (*completely false*) to 10 (*completely true*).

## 2. PREVALENCE OF EXCESSIVE MOBILE PHONE USE IN YOUNG PEOPLE

Polish research carried out as part of the “Dbaj o swój z@sięg” campaign, which covered over 22,000 people aged 12-18 showed that 2-3% of the surveyed students showed symptoms of addiction. The average age when new technologies are started to be used is 10 years old. The vast majority of them use smartphones regularly (87%).<sup>8</sup> Other studies of adolescents aged 16–20 showed similar results, in which 5.83% of people met the criteria for addiction to a mobile phone, and 34.6% were at risk of becoming addicted.<sup>9</sup> In 2017-2018, Katarzyna Warzecha and her team undertook the task of characterizing the problematic phenomenon of mobile phone use by primary school youth.<sup>10</sup> The analyzes confirmed the addiction in 3.40–4.94% of students. The risk of addiction was in the range of 31.29–36.18%.

Almost a quarter of smartphone users think they spend too much time on them (23%). The CBOS report for 2018 emphasizes that the abuse of smartphones most often affects young people aged 18 to 34. The opinion on the

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<sup>6</sup> Wojciech M. Czerski, “Zjawisko uzależnienia od smartfonu dzieci i młodzieży w świetle wybranej literatury,” *Edukacja – Technika – Informatyka* 2, no. 28 (2019): 257-63; Min Kwon, Dai-Jin Kim, Hyun Cho, and Soo Yang, “The Smartphone Addiction Scale: Development and Validation of a Short Version for Adolescents,” *PloS One* 8, no. 12 (2013): 1–7; Ewa Krzyżak-Szymańska, *Uzależnienia technologiczne wśród dzieci i młodzieży. Teoria, profilaktyka, terapia – wybrane zagadnienia* (Kraków: Oficyna Wydawnicza Impuls, 2018).

<sup>7</sup> Ewa Krzyżak-Szymańska, “Adaptacja i walidacja narzędzia do pomiaru stopnia zagrożenia problematycznym używaniem telefonu komórkowego przez młodzież,” *KBPN*, accessed December 14, 2020, [https://www.kbpn.gov.pl/portal?id=15&res\\_id=7554994](https://www.kbpn.gov.pl/portal?id=15&res_id=7554994).

<sup>8</sup> Maciej Dębski, *Nałogowe korzystanie z telefonów komórkowych. Szczegółowa charakterystyka zjawiska fonoholizmu w Polsce. Raport z badań – skrót, na podstawie eksperymentu społecznego pt.: POZ@SIECIA* (Gdynia: Fundacja Dbam o Swój Zasięg, 2017), [https://dbamomojza.sieg.com/wp-content/uploads/2016/04/Nałogowe-korzystanie-z-telefonow-komorko\\_wych.pdf](https://dbamomojza.sieg.com/wp-content/uploads/2016/04/Nałogowe-korzystanie-z-telefonow-komorko_wych.pdf).

<sup>9</sup> Katarzyna Warzecha, „Smartfon w edukacji i komunikacji młodzieży gimnazjalnej a zagrożenie fonoholizmem,” *Zeszyty Naukowe Uniwersytetu Szczecińskiego* 123(2016): 345-57.

<sup>10</sup> Warzecha, “Charakterystyka zjawiska.”

use of phones in various situations is interesting. Almost everyone believes that they should not use smartphones in church, theater, school or university. They are also disturbed if someone uses a smartphone during a conversation or a meal instead of spending time with others. However, the attitude towards what is inappropriate differs with age. Young people are very open to the use of smartphones and they are less radical in using them in the situations described above. Most often, respondents are disturbed by someone using a smartphone while talking to them. The discrepancy occurs when users have themselves admitted to the behavior. More than a third of the total (36%), and 70% of young people, have “played” with a smartphone during a conversation.<sup>11</sup>

In terms of problematic use of a mobile phone by young people, Poland does not differ significantly from other European countries. Independent studies indicate that the group of adolescents addicted is in the range of 3–4%. In Belgium, Great Britain, France and Spain, addiction was reported at 3.9%, 3.5%, 3.4% and 3.2%, respectively.<sup>12</sup>

There are also reports in the literature indicating Asia as the region of the world with the highest percentage of people using new technologies excessively. In India it ranges from 39% to 44%,<sup>13</sup> while in South Korea 30.9% of high school students are classified at risk of being addicted to smartphones.<sup>14</sup> In the Philippines, which is often referred to as the „capital of social media.” this figure is 62.6%, and the average Filipino spends about 3 hours online every day.<sup>15</sup>

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<sup>11</sup> CBOS, “(Nad)używanie smartfonów.”

<sup>12</sup> Maria Castillo and Rosario Ruiz-Olivares, “The Perception of Risk and its Relation to the Problematic Use of the Mobile Phones by Adolescents,” *Revista Espanola de Investigaciones Sociologicas* 168(2019): 21-34.

<sup>13</sup> Sanjeev Davey and Anuradha Davey, “Assessment of Smartphone Addiction in Indian Adolescents: A Mixed Method Study by Systematic-Review and Meta-Analysis Approach,” *International Journal of Preventive Medicine* 5, no. 12 (2014): 1500.

<sup>14</sup> Seong-Soo Cha and Bo-Kyung Seo, “Smartphone Use and Smartphone Addiction in Middle School Students in Korea: Prevalence, Social Networking Service, and Game Use,” *Health Psychology Open* 5, no. 1 (2018); Sook-Jung Lee, Changho Lee, and Cheolhan Lee, “Smartphone Addiction and Application Usage in Korean Adolescents: Effects of Mediation Strategies,” *Social Behavior and Personality* 44, no. 9 (2016): 1525-34.

<sup>15</sup> Danilo B. Buctot, Nami Kim, and Jinsoo J. Kim. “Factors Associated with Smartphone Addiction Prevalence and Its Predictive Capacity for Health-Related Quality of Life among Filipino Adolescents,” *Children and Youth Services Review* 110(2020): 104758.

In 2008, after the iPhone was introduced to the market, smartphone users spent about 32 minutes a day with their device.<sup>16</sup> Currently, more than 2/3 of young people (63%) spend from 1 to 2 hours, and 17.5% use them for more than 4 hours a day. Recent studies among Spanish youth reveal disturbing figures. The average age of receiving the first smartphone is 10 years old. The time spent using these devices gradually increases with the age of adolescents from 1.57 hours a day at the age of 10 to 3.73 hours at the age of 18.<sup>17</sup>

Most studies indicate that problematic smartphone use affects girls more than boys.<sup>18</sup>

### 3. DIMENSIONS OF THE SMARTPHONE EXPERIENCE

Smartphones have become an indispensable device used in everyday life. Almost 150 years have passed since the invention of the first telephone. The invention has evolved to such an extent that today it replaces many other devices, such as a camera, calendar, calculator, or an alarm clock. It reminds of important events, it is used for listening to music and watching movies, but above all it allows constant contact with others and access to the internet. Smartphones and social media have become an „extension” of the human being in the 21st century.<sup>19</sup> In-depth user interviews allowed researchers to understand what smartphone use is for them (how they experience smartphone use)<sup>20</sup>:

#### **Extension of self**

Most people consider smartphones to be an integral part of themselves. Thanks to a wide range of applications and functions, they are very often used in everyday life. If someone wants to get any information, check train/bus/air connections or book availability in a bookstore or library, etc.,

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<sup>16</sup> Matthew Lapierre, “Smartphones and Loneliness in Love: Testing Links Between Smartphone Engagement, Loneliness, and Relational Health,” *Psychology of Popular Media* 9, no. 2 (2020): 125-34.

<sup>17</sup> Castillo, “The Perception,” 21-34.

<sup>18</sup> Buctot, “Factors Associated,” 110; Castillo, “The Perception,” 21-34; Krzyżak-Szymańska, *Uzależnienia technologiczne wśród dzieci i młodzieży*; Warzecha, “Smartfon w edukacji,” 345-57; Bernd Lachmann et al., “Who’s Addicted to Smartphone and/or the Internet?” *Psychology of Popular Media Culture* 8, no. 3(2017): 182-89.

<sup>19</sup> Daria Kuss, “Mobile Technology and Social Media: The ‘Extensions of Man’ in the 21st Century,” *Human Development* 60(2017): 141-43.

<sup>20</sup> Harkin, “My Smartphone.”

is not limited in any way. The widespread presence of smartphones has made modern phones more than just an addition to everyday life. They become perceived as part of your own body.

#### **Identity manifestation**

Smartphone users personalize their devices to match their identity. They collect information, photos and music that is unique to them. The installed applications fit their lifestyle, reflect their tastes and needs. Social media allow them to present themselves to others, show their personality. Various applications enable smartphones to manage their personality traits online.

#### **Constant communication**

The possibility of making contact by voice call, text message or social media gives smartphone users the feeling that they are not alone. This applies in particular to contact with family and friends who live far apart.

Indirect building of intimacy in a relationship

Mobile devices have an increasing influence on partnerships, and communication through them is often complementary to contacts in everyday life. Continuing conversations on social media can deepen people's relationships.

#### **Confirmation of events**

The use of smartphones influences the perception of the surrounding world. The description of the event in social media shapes the way of interpreting reality. For example, people sharing their experiences emphasized that watching comedies and following cabaret social groups had an impact on their sense of humor.

### 4. NOMOPHOBIA: A 21ST-CENTURY SYNDROME

Thanks to their numerous functions, smartphones have become practically indispensable in everyday life. Regardless of where their users are, they help to stay in touch with others and, above all, ensure constant access to information. In this way, people become more dependent on their devices, which in turn increases their anxiety about not having a phone within reach.

In 2008, a survey commissioned by Royal Mail was conducted among the British, which showed that 53% of them feel anxious when they cannot use the phone, e.g. when they accidentally left it at home or another room, they



lose coverage or have a low battery.<sup>21</sup> It was the first time that the term “nomophobia” (no-mobile phobia) was used.

This term has not yet gained a scientific name, but the problem of anxiety due to the unavailability of the telephone is so serious that scientists place it alongside such civilization diseases as diabetes or arterial hypertension.<sup>22</sup> Nomophobia is attributed to people who cannot live without a smartphone, and when they think they have lost it or forgot to take it from home, they become angry or fear being excluded from living online. They then think about what is happening on social media or if they have received a message on Facebook that they will not be able to reply to.

The average smartphone user glances at their phone about 34 times a day. In contrast, people with nomophobia do this every few minutes. When they cannot find or use their mobile, then some symptoms may appear indicating that the person suffers from nomophobia. The first symptom of nomophobia is a feeling of great anxiety about leaving the device at home or elsewhere. It does not result from fear of getting private data or the device itself stolen, but by the lack of contact with the online world. In more extreme cases, nomophobia manifests itself with severe physical ailments. These include high heart rate, dizziness, nausea, chills, shortness of breath, chest pain, and even panic attacks. Among the most common symptoms of nomophobia is sweating and an increased heart rate – these are symptoms related to the stress experienced by a person who has misplaced their mobile.<sup>23</sup>

There is a fine line between the understandable need to use a smartphone and the anxiety underlying nomophobia. Nowadays, when smartphones have become an integral part of everyday life, widely used at work, diagnosing this disorder is extremely difficult. Caglar Yildirim<sup>24</sup> from the University of Iowa set about developing some dimensions of nomophobia. By interviewing some sufferers, he noticed that it can manifest itself in four areas: not

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<sup>21</sup> “Nomophobia Is the Fear of Being Out of Mobile Phone Contact – And It’s the Plague of Our 24/7 Age,” accessed November 23, 2020, <http://www.dailymail.co.uk/news/article-550610/Nomophobia-fear-mobile-phonecontact--plague-24-7-age.html>.

<sup>22</sup> Caglar Yildirim, “Exploring the Dimensions of Nomophobia: Developing and Validating a Questionnaire Using Mixed Methods Research,” *Graduate Theses and Dissertations*, 14005, accessed December 17, 2020, <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=5012&context=etd>.

<sup>23</sup> Wojciech Czerski, “Nomofobia – szczególnie groźna odmiana uzależnienia od telefonu komórkowego,” *Edukacja – Technika – Informatyka* 3, no. 25 (2018): 212-17; Karolina Stan-kiewicz, “Czym jest nomofobia? Jak uchronić przed nią siebie i dzieci?” *spyshop.pl*, September 11, 2014, accessed December 15, 2020.

<sup>24</sup> Yildirim, “Exploring the dimensions.”

being able to communicate, losing connectedness, not being able to access information, and giving up convenience.

## 5. CONSEQUENCES OF EXCESSIVE SMARTPHONE USE

Smartphones accompany a person around the clock. In the morning they wake up, during the day they facilitate contact with others, and in the evening they are used to view or read news. Despite the fact that many people do not part with them even for a moment, few people are aware of the impact these devices have on human health.

### **Effects on physical health**

Using a smartphone for an average of 2 to 4 hours forces the spine to remain in an unnatural position. When looking at this type of device, the neck is bent at an angle of 12 degrees. With this inclination, the pressure on the spine is approximately 12 kg. Prolonged use of smartphones in a bent position may degenerate the cervical spine. It is often associated with various posture defects and pains in the arms, wrist and hand.<sup>25</sup>

Distraction from a telephone while walking or driving a car is becoming an increasing problem, putting the person at risk of injury. While pedestrian accident rates have declined over the years, the number of injuries from phone misuse is increasing.<sup>26</sup> Wanting to thoroughly examine the capabilities of the human body when using the smartphone, Mourra,<sup>27</sup> together with his colleagues, conducted an interesting experiment. During the walk on the treadmill, the participants had to react to an external stimulus from time to time while performing a task on a smartphone. Browsing the phone has been shown to increase responsiveness to auditory and visual stimuli. Moreover,

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<sup>25</sup> Sang In Jung et al., "The Effect of Smartphone Usage Time on Posture and Respiratory Function," *Journal of Physical Therapy Science* 28, no. 1 (2016): 186-89; Subramani Parasarman et al., "Smartphone Usage and Increased Risk of Mobile Phone Addiction: A Concurrent Study," *International Journal of Pharmaceutical Investigation* 7, no. 3 (2017): 125-31, [https://doi.org/10.4103/jphi.JPHI\\_56\\_17](https://doi.org/10.4103/jphi.JPHI_56_17); Deepak Sharan et al., "Musculoskeletal Disorders of the Upper Extremities Due to Extensive Usage of Hand Held Devices," *Annals of Occupational and Environmental Medicine* 26, no. 1(2014): 22.

<sup>26</sup> Buctot, "Factors associated," 110.

<sup>27</sup> Gabrielle N. Mourra et al., "Using a Smartphone while Walking: The Cost of Smartphone-Addiction Proneness," *Addictive Behaviors* 106(2020).

people diagnosed with problematic use of a smartphone missed out on more information compared to regular users.

Poor sleep quality is recognized as one of the main negative consequences of smartphone abuse. In a survey conducted by eight countries, as many as 75% of respondents under 30 take their phones to bed when going to sleep. Moreover, the blue light emitted by the phone screen disrupts the circadian rhythm.<sup>28</sup>

Scientists also mention the negative health effects of using smartphones: vision problems, dizziness, and headaches.<sup>29</sup>

### **Effects on mental health**

Smartphone abuse is associated with psychosocial consequences, especially anxiety–depressive disorders. A vicious cycle is observed. Adolescents who suffer from depression may spend more time using electronic media than their healthy peers, but at the same time, the more time young people spend with a smartphone, the more their depression may worsen.<sup>30</sup>

Young people who use mobile phones a lot often do so at the expense of other important developmental needs, such as physical activity or face-to-face contact with their peers. Contact with a smartphone also affects attention, memory, and learning. Frequently checking out the mobile phone is not indifferent to the ability to concentrate. Each time you stop learning by looking at the phone, your concentration and the ability to remember a given material are reduced. This style of using mobile devices leads to a state of permanent distraction, unnecessarily overburdening the mind with excess stimuli, aggravating fatigue and overload, and causing irritation.<sup>31</sup>

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<sup>28</sup> Meng X. Zhang and Anise M. S. Wu, “Effects of Smartphone Addiction on Sleep Quality among Chinese University Students: The Mediating Role of Self-Regulation and Bedtime Procrastination,” *Addictive Behaviors* 111(2020): 106346.

<sup>29</sup> Sakari Lemola et al., “Adolescents’ Electronic Media Use at Night, Sleep Disturbance, and Depressive Symptoms in the Smartphone Age,” *Journal of Youth and Adolescence* 44, no. 2 (2015): 405-18.

<sup>30</sup> Shao-I Chiu, “The Relationship between Life Stress and Smartphone Addiction on Taiwanese University Student: A Mediation Model of Learning Self-Efficacy and Social Self-Efficacy,” *Computers in Human Behavior* 34 (2014): 49–57; Haruka Tamura et al., “Association between Excessive Use of Mobile Phone and Insomnia and Depression among Japanese Adolescents,” *International Journal of Environmental Research and Public Health* 14, no. 7 (2017): 701.

<sup>31</sup> Buctot, “Factors associated,” 110.

Smartphones allow easy access to online publications with sexual content. Landau<sup>32</sup> found that 54% of adolescents using social media searched for or posted content related to sex, drugs and violence. Other studies have established a causal link between smartphone “addiction” and cybersexual crime. Excessive telephone use increases the likelihood of engaging in sexual violence.<sup>33</sup>

## 6. RISK FACTORS OF PROBLEMATIC MOBILE PHONE USE

In recent years, addiction specialists have been paying more and more attention to particular features and elements of a person's lifestyle that increase the risk of developing the problematic mobile phone use. The development of addiction may be preceded by specific factors that intensify behaviors related to using a smartphone.

### **Negative parental attitudes**

Adolescents who have experienced rejection or an overprotective attitude from their parents are more prone to mood regulation with the help of mobile applications.<sup>34</sup> The group of risk factors includes family dysfunction, in particular the regular consumption of alcohol by parents. It also turns out that high parental earnings are conducive to addiction.<sup>35</sup>

### **Dissatisfaction with the body**

Among adolescents with a negative body image, a smartphone is a frequent tool for escaping into the virtual world, which in turn often leads to excessive use of these devices.<sup>36</sup>

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<sup>32</sup> Elizabeth Landau, “Study: Teens on MySpace Mention Sex, Violence,” *Cable Network News*, January 5, 2009, accessed January 25, 2021, [http://edition.cnn.com/2009/HEALTH/01/05/myspace.teens/index.html?eref=rss\\_us](http://edition.cnn.com/2009/HEALTH/01/05/myspace.teens/index.html?eref=rss_us).

<sup>33</sup> Jin Choi, Ok-Joo Choi, and Joon-Ho Kim, “Effects of Adolescent Smartphone Addiction on Cybersexual Delinquency,” *Social Behavior and Personality* 45, no. 5 (2017): 819-32.

<sup>34</sup> Ling Lian et al., “Who Overuses? Roles of Virtues and Parenting Style in Smartphone Addiction among Chinese College Students,” *Computers in Human Behavior* 65 (2016): 92-99.

<sup>35</sup> Ggenni Newsham, Michelle Drouin, and Brandon T. McDaniel, “Problematic Phone Use, Depression, and Technology Interference Among Mothers,” *Psychology of Popular Media* 9, no. 2 (2020): 117-24.

<sup>36</sup> Qinxue Liu et al., “Body Dissatisfaction and Smartphone Addiction among Chinese Adolescents: A Moderated Mediation Model,” *Children and Youth Services Review* 108, no. Complete (2020).

### **Tendency to boredom**

Students who are low in resistance to monotony and boredom are much more likely to develop addiction. In terms of its functions, the smartphone enables the organism to be stimulated, so many people reach for the phone in moments of boredom.<sup>37</sup> In this regard, the lack of self-regulatory capacity plays an important role.<sup>38</sup>

Avoiding attachment style Research results suggest that this type of attachment leads to low self-esteem and increased anxiety, which in turn increases the use of smartphones.<sup>39</sup>

### **Personality traits**

Extraversion has a direct impact on the number of hours spent using a smartphone. Similarly, low conscientiousness is associated with the development of addiction.<sup>40</sup>

## CONCLUSION

Smartphones offer a huge range of possibilities, and participation in them keep people actively involved in building relationships with others. These devices changed the way of consuming various content, spending free time, using the internet, shopping, watching movies. Thanks to them, new ways of communication and building relationships have emerged. They were supposed to serve mainly as facilitating communication with loved ones, but over time they started to shape and create the surrounding reality.

The popularization of smartphones has opened up new paths of development and communication, which undoubtedly influenced the social reality.

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<sup>37</sup> Zhengpei Wang, Xue Yang, and Xiaolu Zhang, "Relationships among Boredom Prone-ness, Sensation Seeking and Smartphone Addiction among Chinese College Students: Mediating Roles of Pastime, Flow Experience and Self-Regulation," *Technology in Society* 62(2020).

<sup>38</sup> Chongyang Chen et al., "Examining the Effects of Motives and Gender Differences on Smartphone Addiction," *Computers in Human Behavior* 75(2017): 892-902.

<sup>39</sup> Eunhyang Kim and Eunyong Koh, "Avoidant Attachment and Smartphone Addiction in College Students: The Mediating Effects of Anxiety and Self-Esteem," *Computers in Human Behavior* 84(2018): 264-71.

<sup>40</sup> Elena Cocorada, Catalin I. Maican, Ana-Maria Cazan, and Maria A. Maican, "Assessing the Smartphone Addiction Risk and Its Associations With Personality Traits Among Adolescents," *Children and Youth Services Review* 93 (2018): 345-354; Lopez-Fernandez, Olatz, Jose L. Lopez-Losada, Luisa Honrubia-Serrano. "Predictors of problematic Internet and mobile phone usage in adolescents." *Revista de Psicologia* 33, no. 2(2015): 49-58.

Everyone at some point asked themselves this question: Am I addicted to a smartphone, or maybe my attachment to it is a sign of our times? The line between regular and problematic smartphone use is blurry. One thing is certain: moral standards and the very attitude towards these devices are bound to change.

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FONOHOLIZM, SMOMBIE, NOMOFobia: WSPÓŁCZESNE POJĘCIA  
CHARAKTERYZUJĄCE NAŁOGOWE KORZYSTANIE ZE SMARTFONU  
PRZEZ WSPÓŁCZESNĄ MŁODZIEŻ

S t r e s z c z e n i e

Smartfony oferują ogromny wachlarz możliwości, sprawiając, że ludzie aktywnie angażują się w budowanie relacji z innymi. Urządzenia te zmieniły sposób konsumowania różnorodnych treści, spędzania wolnego czasu, korzystania z Internetu, robienia zakupów, oglądania filmów. Dzięki smartfonom pojawiły się nowe sposoby komunikacji i budowania relacji. Miały służyć głównie ułatwieniu komunikacji, ale z czasem zaczęły kreować otaczającą rzeczywistość. Chociaż urządzenia te oferują ogromne możliwości wprowadzania innowacji, uczenia się i stymulowania kreatywności, istnieją dowody na negatywne konsekwencje dla zdrowia psychicznego użytkowników.

Artykuł porusza problem problematycznego korzystania z telefonów komórkowych przez młodych ludzi. Wskazano na niebezpieczeństwo uzależnienia się od telefonu komórkowego oraz przedstawiono specyfikę fonoholizmu jako nowej formy uzależnienia behawioralnego. Najpierw zostały przedstawione objawy nadmiernego korzystania ze smartfonów wraz z psychologicznymi wymiarami i powodami, dla których ludzie ich tak często używają. Następnie przedstawione zostały zagadnienia związane z problematycznym korzystaniem z telefonów komórkowych, takie jak rozpowszechnienie, metody kwestionariuszowe i konsekwencje. Na koniec autor omawia czynniki ryzyka związane z nadmiernym korzystaniem ze smartfonów.

**Słowa kluczowe:** problematyczne korzystanie z telefonów komórkowych; nadmierne korzystanie ze smartfonu; fonoholizm; smombie; nomofobia.