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Self-Representation on Social Media During Lockdowns in the First and Second COVID-19 Pandemic Waves

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ABSTRACT: Social media is a diverse and dynamically evolving online space that consists of multiple platforms. These social media platforms have become part of the daily lives of many and have grown into important venues of interaction. The ability to cross geographical and cultural borders and the interchangeable roles of sender and recipient (as opposed to conventional mass communications patterns) are two essential features of social media. This pilot study intends to provide an overview of changes that have occurred in self-representation on social media and their possible connection to mental health among Hungarian users using an online questionnaire conducted during two lockdowns in the first and second waves of the COVID-19 pandemic. The results of this two-step survey indicate that the use of social media and self-representation in social media posts increased during the lockdown periods, with selfies being the most popular type of content shared. In addition, signs of major depression were more prevalent among social media users who shared photos or videos of themselves or their close relations at least once a day on Messenger, the platform on which willingness to share this type of content increased the most during the lockdowns.

KEYWORDS: COVID-19, self-representation, social media, sociology, social psychology

Introduction

Social media has become an indispensable part of the daily lives of many over the past 15 years. Its numerous definitions are well known, though they may essentially be summarized as follows: "social media employ mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content" (Kietzmann, Hermkens, McCarthy, and Silvestre 2011). Social media can be used to cross geographical and cultural borders and is characterized by the interchangeable roles of the sender and the recipient. This pilot study intends to provide an overview of the changes that have occurred in self-representation on social media—specifically on social networking sites (Facebook, Instagram, LinkedIn, Twitter, Pinterest, and YouTube) and on social messaging platforms (Messenger, Viber, WhatsApp, and Snapchat)—and their possible connection to mental health among Hungarian users using an online questionnaire conducted during two lockdown periods in the first and second waves of the COVID-19 pandemic.

Coronavirus disease 2019 (COVID-19) is an illness caused by a novel coronavirus now known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly known as 2019-nCoV), which was first identified as an outbreak of respiratory illness in Wuhan, China (Cennimo 2020). According to the Centers for Disease Control and Prevention, "COVID-19 is thought to spread mainly through close contact from person to person, including between people who are physically near each other (within about 6 feet)" (CDC 2020). Because the virus is highly infectious, spreads very easily, and is particularly harmful to those with compromised immune systems, curfew restrictions, lockdowns, quarantining, and physical distancing have been proposed and implemented in many regions of the world as a precaution against the spread of the epidemic (Sanche et al. 2020).

In Hungary, in response to the first wave of the pandemic, an epidemiological emergency was declared on March 11, 2020 (Hungarian Official Gazette 2020/39), followed by a lockdown

on March 28 that initially lasted just two weeks. However, the government extended this lockdown indefinitely on April 9, easing it gradually to May 4. Restrictions in the first wave of COVID-19 included border closings; closure of educational institutions, leisure facilities, restaurants, cafés, bars, clubs, and some private industry service providers; bans on gatherings, events, and visits to health care and social care institutions; and obligation to wear masks in certain closed spaces such as public transportation, shops, and shopping malls. After a summer of only some light restrictions (e.g., obligation to wear masks in certain closed spaces) and a growing number of cases in the fall season, a state of emergency went into effect again on November 4 in response to the second wave of the pandemic (Hungarian Official Gazette 2020/237). On November 5, a partial curfew went into effect, requiring everyone to stay indoors from 8 p.m. to 5 a.m. Face masks were made mandatory not only in closed spaces but in all public spaces in municipalities with over 10,000 inhabitants as well. These restrictions are still in effect at the time of writing this, the beginning of January 2021. The COVID-19 pandemic is associated with mental and emotional burdens such as uncertainty about the future, fears of infection, resource shortages, public health measures that limit personal freedoms in unprecedented ways, material losses, and contradictory messages from the media (Pfefferbaum and North 2020). Researchers have found striking increases in rates of depression, anxiety, and comorbidities between the two among frequent users of social media throughout the COVID-19 pandemic (Gao et al. 2020). However, frequent social media use has been connected to heightened risks of depression before the pandemic as well (Lin et al. 2016). The three hypotheses of the current pilot study are the following: (1) time spent on social media and (2) willingness to share self-representative content have both increased again during the second wave of the pandemic and are associated with (3) higher rates of depression among the most active sharers, similarly to the first wave (Sándor 2020).

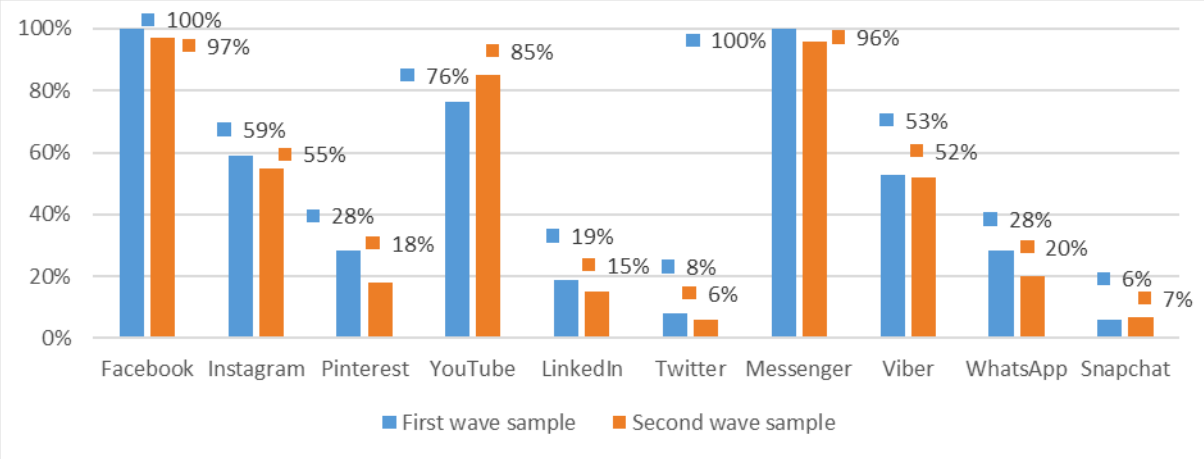
Results and discussions

To provide an overview of the changes in self-representation on social media and their potential connection to mental health difficulties among Hungarian users during the first- and second-wave pandemic lockdowns, an online questionnaire was shared via Facebook and Instagram. The two-step survey included the same questions over two separate data collection periods, with only time-related modifications in the questions where needed. The purpose of the 20-question questionnaire is to assess participants' basic demographic traits (gender, age, type of settlement, and level of education) and social media usage (which social media platforms they use, what types of content they post, where they post from, and how often) in addition to apprehending their current mental health states using the Patient Health Questionnaire-2 (PHQ-2). Two open-ended questions were also included to record participants' thoughts on social media and the sharing of selves and others during the lockdown period.

The first round of anonymous data collection took place between April 22 and May 11 during the restrictions of the first wave of the pandemic. 170 social media users completed the questionnaire, in which the social media usage-related questions primarily concerned the first and pre-lockdown periods. The second questionnaire was released during the second-wave lockdown on November 20. Answers were accepted until December 2 and concerned the current period as well as the time between the two waves of the pandemic. Due to the mostly unpredictable nature of the pandemic and duration of the preventive restrictions (a second wave, its timing, and its severity were unforeseeable during the first data collection period), the situation required the quickest and most efficient data collection possible. Additionally, two samples of convenience cannot be identical. To make the two samples comparable, the second was adjusted to match the first; 100 sets of answers were selected from 119 participants of the second questionnaire in order to make it match the first sample in terms of gender and age groups with less than 0.5% difference (both samples consisted of 79% women and 21% men, and in both samples, 2% of the participants were 13–19 years old, 34% were 20–29 years old, 31% were 30–39 years old, 16%

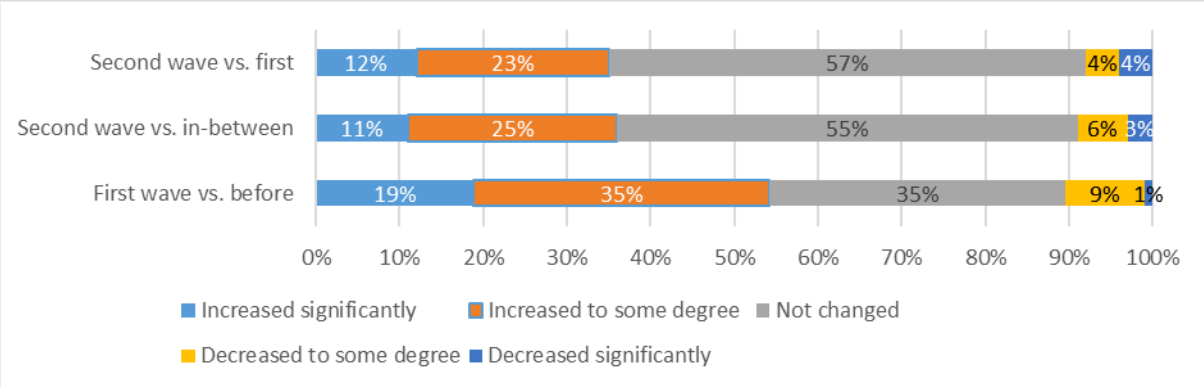
were 40–49 years old, 13% were 50–59 years old, and 4% were 60–69 years old). Facebook and Messenger were the most frequently used platforms among the participants (100% and 100% in the first wave sample, 97% and 96% in the second wave sample). Other social media platforms used included YouTube (76% and 85%), Instagram (59% and 55%), Viber (53% and 52%), WhatsApp (28% and 20%), Pinterest (28% and 18%), LinkedIn (19% and 15%), Twitter (8 and 6%), and Snapchat (6% and 7%) [Figure 1].

Figure 1. Usage of social media platforms by participants



In response to the question "How has your total time spent using social media changed?", the largest increases were visible during the first wave; 54% of participants reported that they spent more time on social media during lockdown than before the pandemic. This increased even further for more than a third of the participants during the second wave. However, the second wave brought about smaller changes than the first wave in terms of overall perceived own social media usage [Figure 2]. "I spent more time online in the spring [during the first wave] than I do now, but overall, I spend more time online than I did before the coronavirus," wrote one of the participants at the time of the second lockdown.

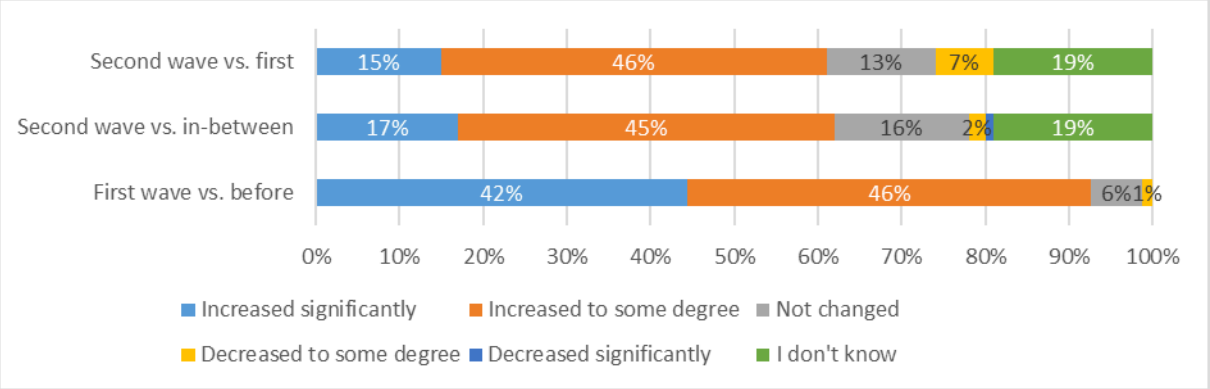
Figure 2. Overall perceived own social media usage time



The results show a considerable difference between the participants' perceived changes in their own social media usage and their impressions of these changes in others. They tended to assume greater changes in the behaviors of others and larger increases in the social media usage times of others than their own [Figure 3]. "I think anyone who is at home uses these apps more," pointed out one of the respondents. Another wrote, "my screen time has increased significantly, clearly showing that I use more social media. I use it mostly to keep in touch with my friends." Job-

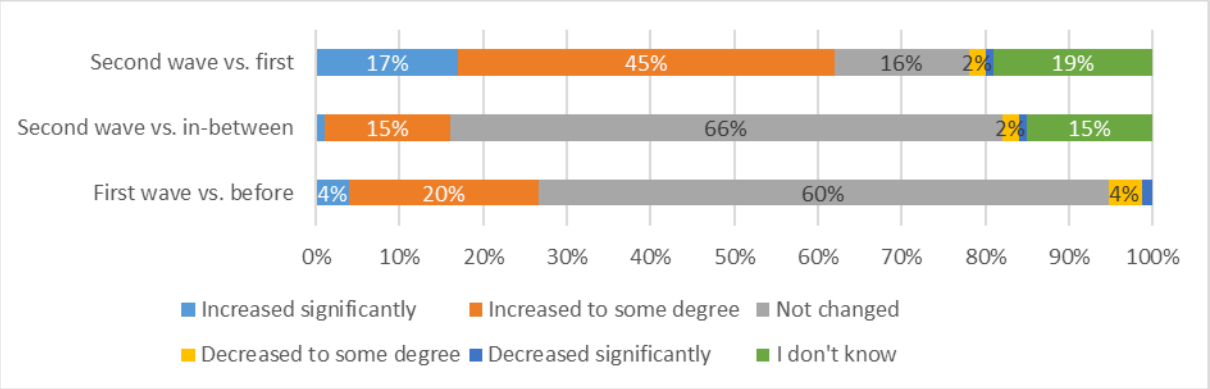
related social media usage was also mentioned, as someone stated, "I use it more at work because I teach online."

Figure 3. Overall perceived social media usage times of others



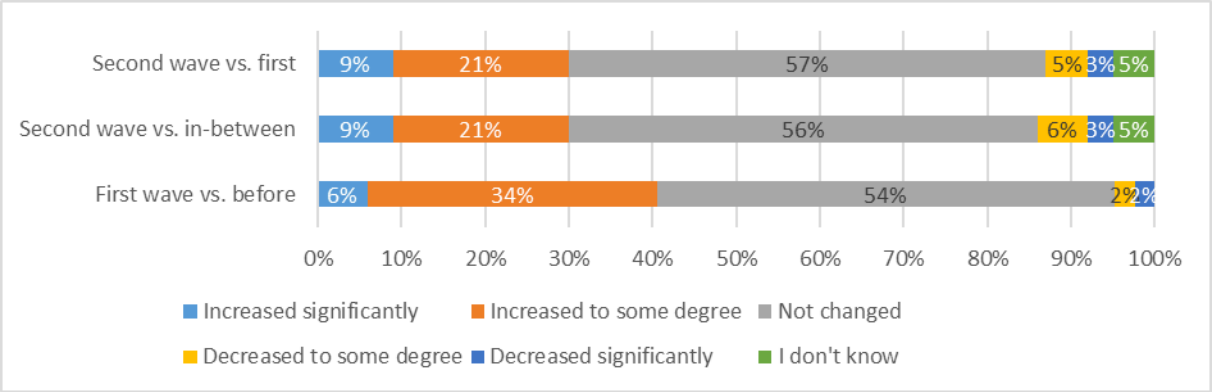
Regarding changes in the number of reactions (likes, other one-button reactions, or comments) received on photos and videos published on social media, participants perceived a more substantial increase during the second wave compared to the first than during the first wave compared to the pre-pandemic period. Almost two-thirds of participants (62%) believed that they received more reactions in the second lockdown than in the first, while less than one quarter (24%) reported the same amount of engagement in the first lockdown compared to before [Figure 4]. "Since people in my age group [20-29] have more time (due to online learning, e.g. my daily train travel time is freed up, which is 4 hours a day) I think they spend more time on staged images," pointed out one of the respondents during the second wave. Another said, "I think people, in general, use them more than the time before new restrictions. In general, we don't have that much activity… just social media."

Figure 4. Overall perceived amount of reactions received



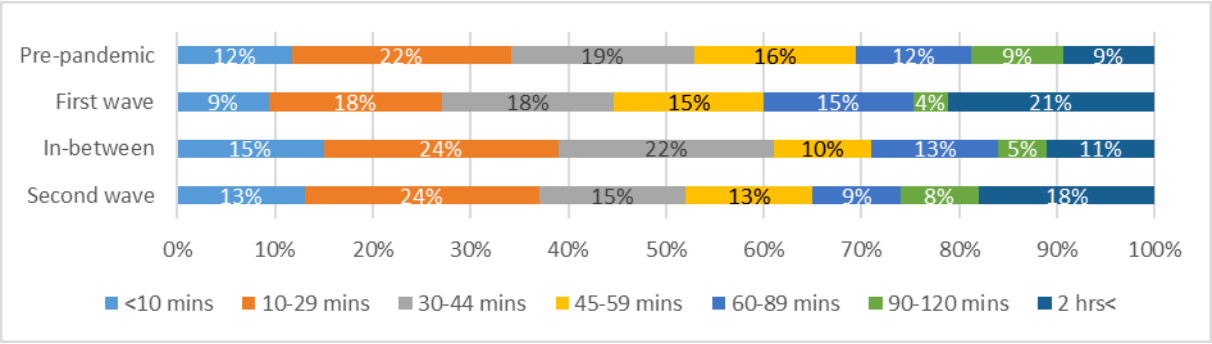
Interestingly, more respondents (40%) felt that their reactions to others' social media content increased more during the first lockdown compared to the pre-pandemic period than during the second wave compared to the first or to the months between the two waves (30% to 30%) [Figure 5]. "More comments, rougher debates in the comment sections," stated one of the respondents regarding the reactions.

Figure 5. Overall perceived amount of reactions given



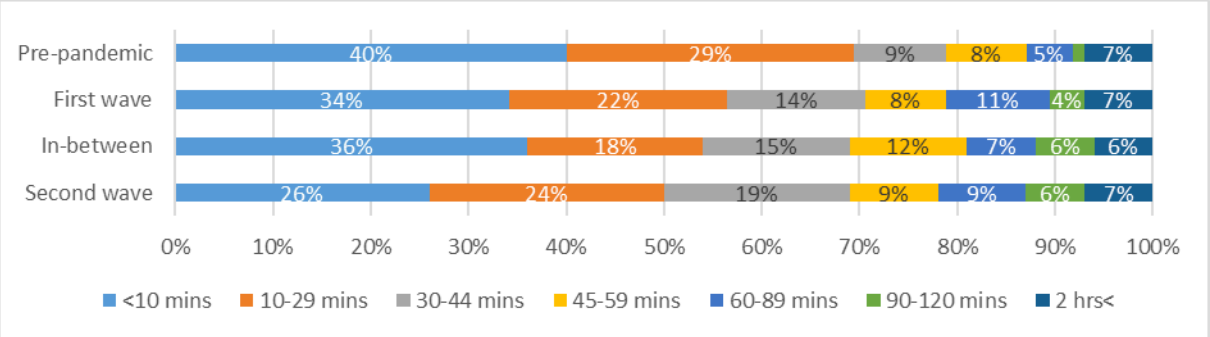
According to the data obtained using matrix questions (multiple-choice grids with time intervals in the columns and social media platforms in the rows), daily time spent on social media grew dramatically among participants during the COVID-19 pandemic. Participants responded to these questions twice in both questionnaires: in the first to record their social media usage times before and during the first lockdown, and in the second to assess their social media usage times before and during the second lockdown. Among all examined platforms, the use of Facebook showed the most prominent changes: during the first lockdown, the most popular answer was "more than 2 hours" (21%), while the proportion of those who reported using Facebook the most decreased by almost half (11%) between the first and second waves of the pandemic, only to increase again significantly during the second wave (18%) [Figure 6]. "I pay more attention to the pictures of others after 8 p.m.," revealed one of the respondents in response to the second wave questionnaire, at the time of the eight-to-five curfew.

Figure 6. Time spent on Facebook per day before, during, and between the lockdowns



The proportion of those who spent more than half an hour a day on YouTube also increased considerably during the first lockdown (from 31% to 44%), and this growth continued even further between the first and second waves of the COVID-19 pandemic (46%) as well as into the second lockdown (50%) [Figure 7].

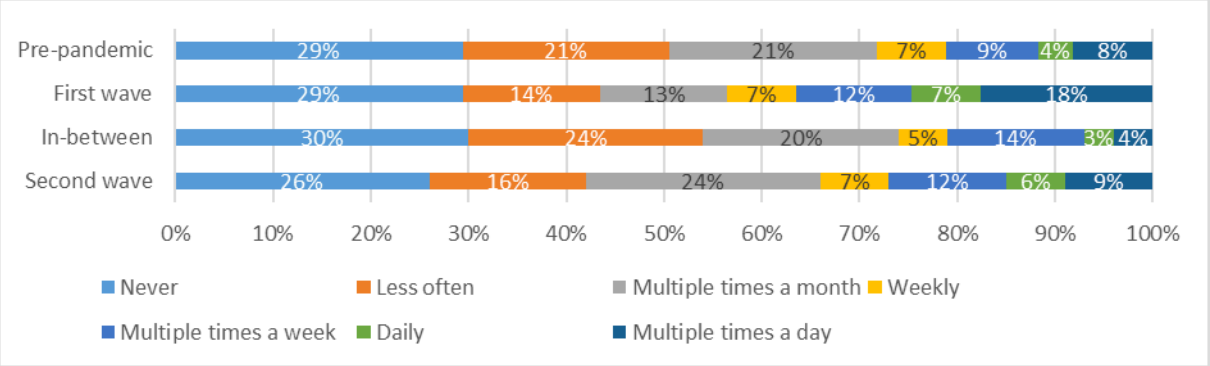
Figure 7. Time spent on YouTube per day before, during, and between the lockdowns



Participants were asked about the frequency at which they shared pictures or videos of themselves and close relations before, between, and during the lockdowns to assess shifts in the intensity of self-representation on social media. Changes were more noticeable on social messaging platforms (Messenger, Viber, WhatsApp, and Snapchat) compared to social networking sites (Facebook, Instagram, LinkedIn, Twitter, Pinterest, and YouTube), according to the collected data. "Much more selfie[s] (in makeup or face mask), and more people became a self-styled chef or confectioner," said one of the respondents during the second wave. As another pointed out, "more people began to produce and share pictures, videos, and memes about the quarantine."

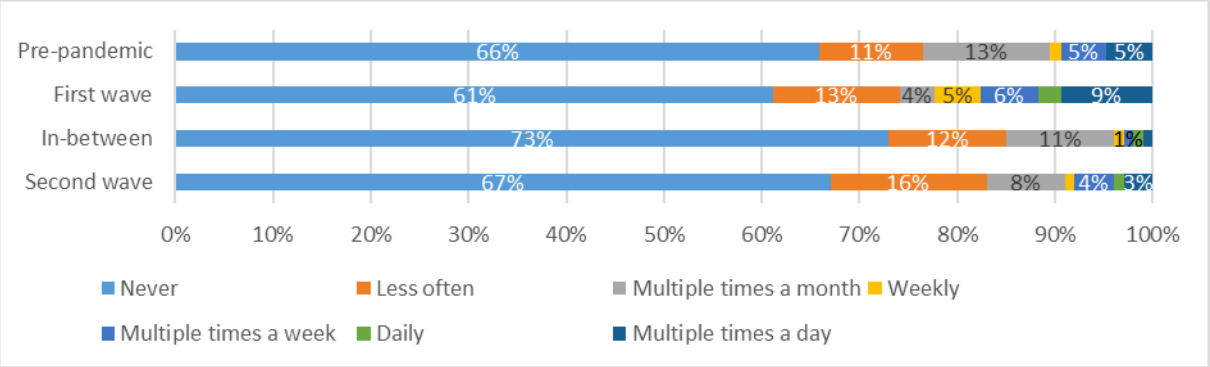
The most noticeable changes were observed on Messenger, where, during the first wave, 18% of respondents shared photos and videos of themselves or people closely related to them "multiple times a day" during the lockdown, while only 8% did so before lockdown, 4% did so between the lockdowns, and 9% did so during the second wave. "Daily" sharing of this type of content also increased from 4% to 7% during the first wave but dropped to 3% during the in-between period, only to increase again to 6% during the second lockdown [Figure 8].

Figure 8. Frequency of photo and video posts of self and close relations on Messenger before, during, and between the lockdowns



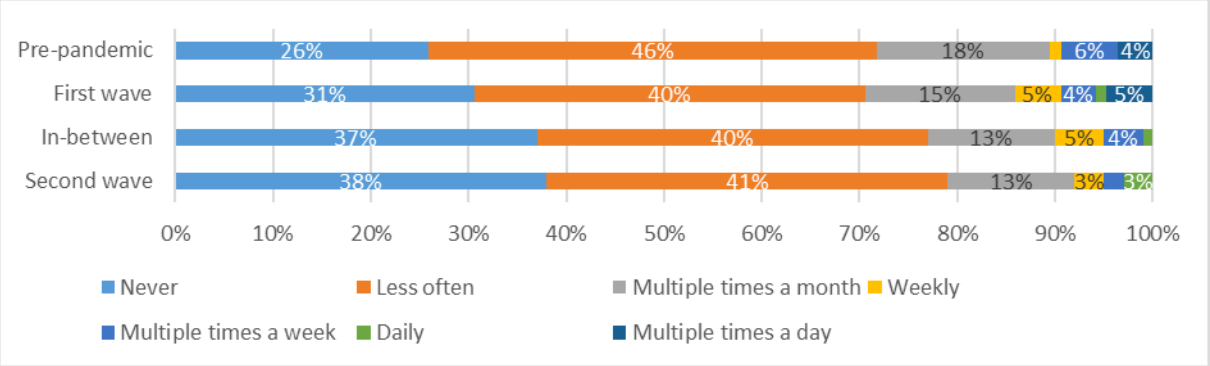
On Viber, the second-most commonly used social messaging platform among the participants, sharing self-representative photos and videos "multiple times a day" became twice as frequent during the first wave of the COVID-19 pandemic (increasing from 5% to 9%), but this rate decreased considerably before and during the second wave (to 1% and 3%). [Figure 9].

Figure 9. Frequency of photo and video posts of self and close relations on Viber before, during, and between the lockdowns



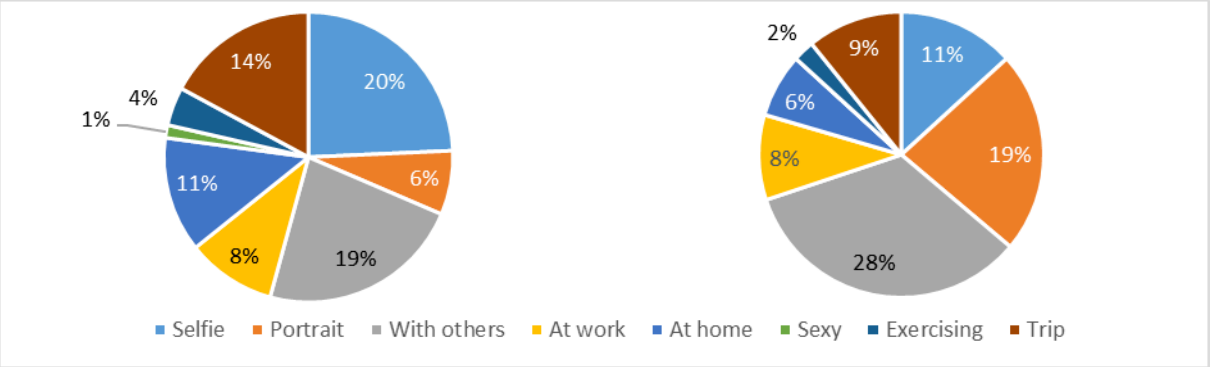
On Facebook, which is currently the most popular social networking site in the world (Clement 2020), the sharing of photos and videos of oneself and close relations at least once a day increased from the pre-pandemic period into the first wave from 4% to 6%, then dropped to 1% between the waves and increased to 3% during the second wave. Throughout this entire length of time, the most frequent answer to how often participants self-share on Facebook always remained "less often than multiple times a month" [Figure 10].

Figure 10. Frequency of photo and video posts of self and close relations on Facebook before, during, and between the lockdowns



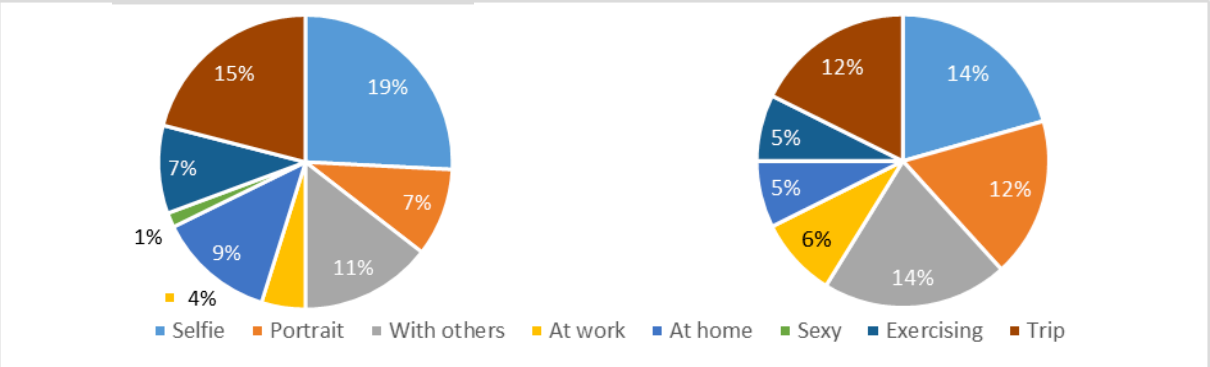
Concerning the type of self-related photos or videos shared during the first COVID-19 pandemic lockdown, "selfies" were the most popular among the participants on all examined social media platforms (Facebook, Instagram, Pinterest, YouTube, LinkedIn, Twitter, Messenger, Viber, WhatsApp, and Snapchat). On the contrary, the popularity of selfies decreased by the time of the second lockdown (from 20% to 11%), giving the first-place position to the former second-place content type, photos and videos "with others" (increased from 19% to 29%) [Figure 11]. This might suggest that memories from the in-between period were shared later during the second-wave lockdown or that participants had fewer concerns about personal interaction. "I see so many throwback photos," confirmed one of the respondents. Another wrote, "there is a greater desire [in others] to show themselves and how they spend their time at home."

Figure 11. Types of self-related photos or videos shared on Facebook during the first (left) and second (right) lockdowns



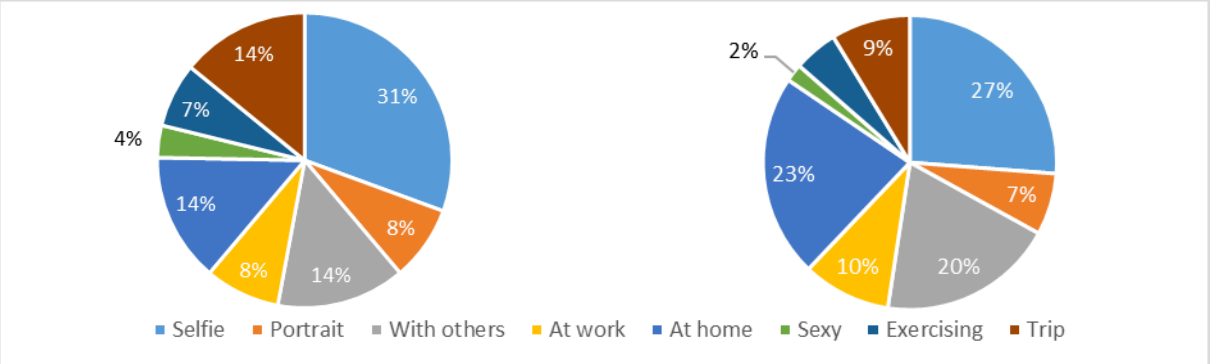
On Instagram, also one of the most popular social networking sites in the world (Clement 2020), the same tendency could be observed, with "selfies" (decreasing in popularity from 19% to 14%) sharing prevalence with photos and videos taken "with others" (increasing in popularity from 11% to 14%) during the second lockdown [Figure 12]. "Many people post more, and even those who had done so infrequently have started to post selfies or photos at home (e.g., of pets) more often," declared one of the respondents during the second wave.

Figure 12. Types of self-related photos or videos shared on Instagram during the first (left) and second (right) lockdowns



On more private social messaging platforms such as Messenger, where content is usually not intended to be shared publicly, ratios of "sexy" photos and videos shared were also measured (4% and 2% during the two lockdowns) [Figure 13].

Figure 13. Types of self-related photos or videos shared on Messenger during the first (left) and second (right) lockdowns



The questionnaire included the Patient Health Questionnaire-2 (PHQ-2) to evaluate the mental health statuses of participants. The PHQ-2 consists of two items under the same question: "Over the last 2 weeks, how often have you been bothered by the following problems?" These items are "little interest or pleasure in doing things" and "feeling down, depressed, or hopeless," while the options are "not at all" (0 points), "several days" (1 point), "more than half the days" (2 points), and "nearly every day" (3 points). Final PHQ-2 scores may range from 0 to 6, and scores of 3 points or more suggest the possibility of major depressive disorder and the need for further examination. According to the results of the PHQ-2, more respondents were bothered by the aforementioned problems during the second wave lockdown than during the first [Figure 14-15].

Figure 14. PHQ-2: Answers to "Little interest or pleasure in doing things" during the first (left) and second (right) lockdowns

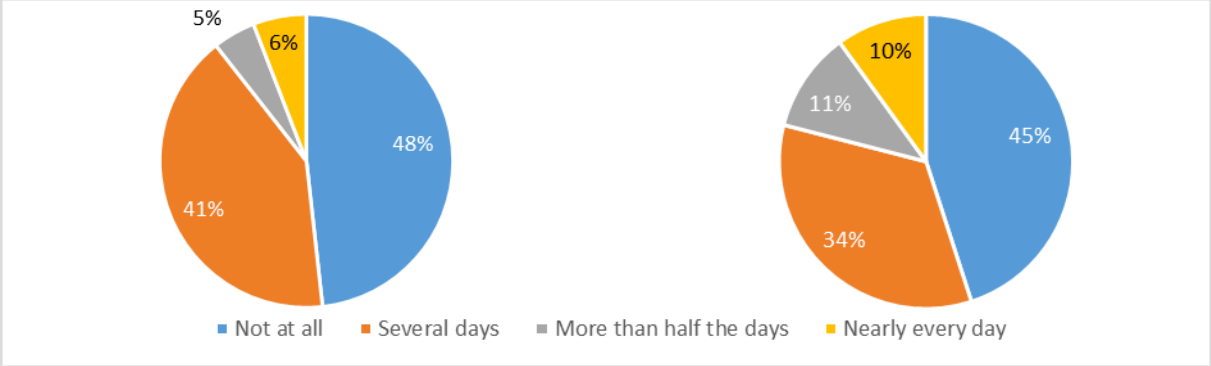
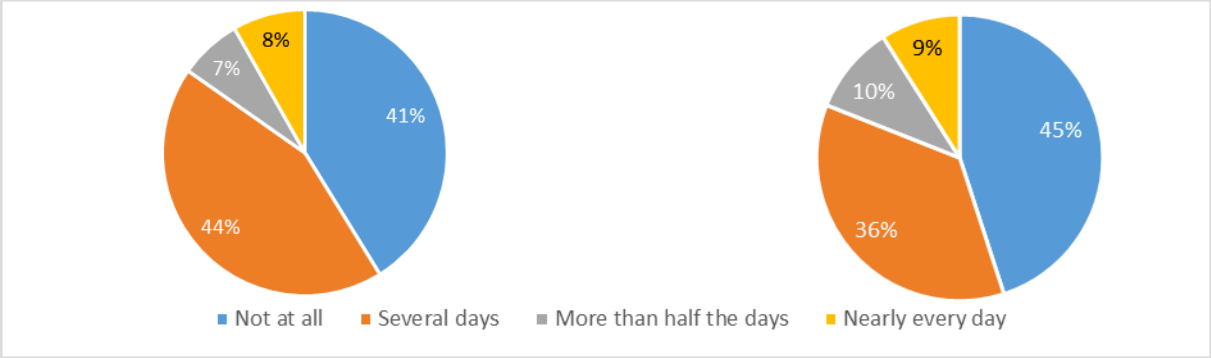


Figure 15. PHQ-2: Answers to "Feeling down, depressed, or hopeless" during the first (left) and second (right) lockdowns



Based on the final PHQ-2 scores of participants, the proportion of those who are likely to have major depression increased significantly (from 16% to 25%) from the first COVID-19 pandemic lockdown to the second [Figure 16]. On the other hand, considerably more participants were found to be at risk among those who shared photos of themselves or their close relations "multiple times a day" or "daily" on Messenger, the platform where the frequency of photo-sharing increased the most during the outbreak, compared to those who did not [Figure 17].

Figure 16. Overall proportions of those who are likely to have major depression

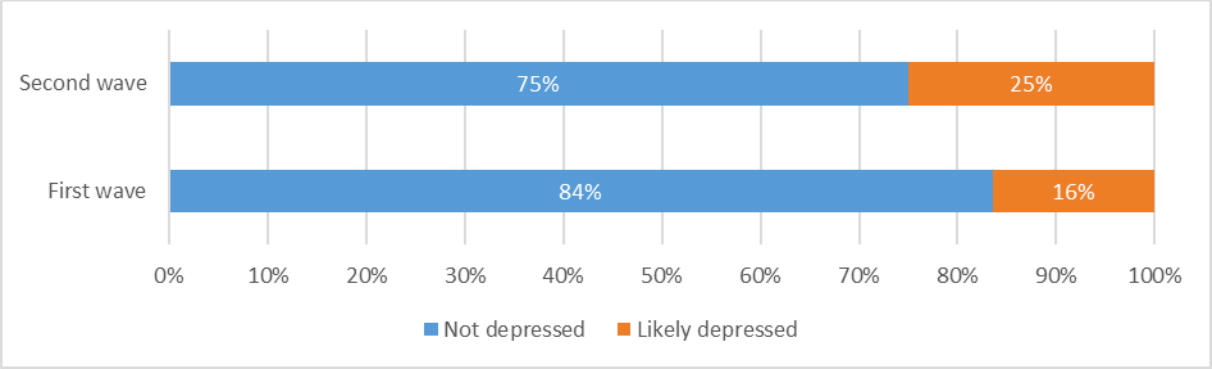
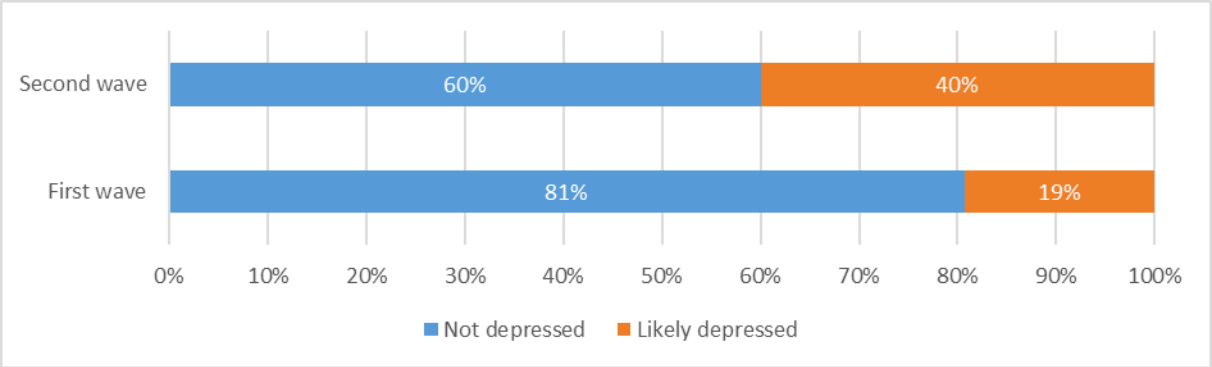


Figure 17. Proportions of those who are likely to have major depression among those who share photos or videos of themselves or close relations on Messenger at least once a day



Conclusions

The results of the current pilot study confirmed all three hypotheses: (1) time spent on social media and (2) willingness to share self-representative content increased again during the second wave, with (3) the most active sharers of this content, according to their PHQ-2 scores, experiencing higher risks of depression, similarly to the first wave (Sándor 2020). However, while time spent on social media use and willingness to share photos or videos of oneself and close relations (including pets) did not increase as much from the period in between lockdowns to the second wave as it did from the pre-pandemic period to the first wave, the overall proportion of those who are likely to have major depression was higher in the sample taken during the second wave than the sample taken during the first, and the proportion of those who are likely to have major depression among those who share photos or videos of themselves or close relations on Messenger at least once a day more than doubled. Despite the relatively small sample size and the experimental nature of this research, it undoubtedly contributes significantly to the mental health contexts surrounding social media use and self-representation as well as the study of the relationships between these factors and real-life events such as pandemics and lockdowns.

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