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IMPACT OF THE COVID-19 ON BEHAVIOUR: A SURVEY OF DIFFERENT ASPECTS OF LIFE OF THE HUNGARIAN POPULATION

Original
Research

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Abstract

The COVID-19 epidemic had an enormous impact on the entire world, including the Hungarian population. The situation was accompanied by numerous new restrictions, strict regulations, and their consequences had to be dealt with, which also affected the life of everyone. Therefore, it was considered worthwhile to assess the different reactions to this situation among the population, what effects the people had to face and whether there was a change in their lives. The opinions of respondents on different areas of life were surveyed, such as private life, changes in personal relationships, introduction of changes in workplace habits, and the effects on health and mental state. Also the survey intended to reveal newly developed good and bad habits. The survey method was a questionnaire-based survey, which was delivered to the respondents online (n=362). The results obtained from the sample were evaluated, subjected to descriptive statistical analysis, and then crosstabs were performed based on background variables (gender, age, educational attainment, occupation, and income) to present correlations. The results of the sample are not representative, but they properly represent and summarize the situation.

INTRODUCTION

The current outbreak of the new coronavirus SARS-CoV-2 (coronavirus disease 2019; formerly 2019 - nCoV) which originates from the Hubei Province of the People's Republic of China has spread to many other countries. On 30th January 2020, the WHO Emergency Committee declared a global health emergency, based on an increasing number of cases reported in China and several international locations (Velavan & Meyer, 2020).

On March 11th, 2020, the WHO declared the coronavirus a global pandemic (World Health Organization, 2020a). According to the latest figures, 51,248,841 people were infected during the coronavirus epidemic worldwide, with 1,268,452 deaths and 33,459,967 people recovered, according to the data of Johns Hopkins University in Baltimore on November 10th, 2020. The COVID-19 disease, caused by the SARS-CoV-2 virus, affects the United States the most, where 10,165,065 people have been infected to date (John Hopkins University, 2020).

The COVID-19 epidemic, which began in 2019, has shocked the world more than anything else for a long time. Although at first many did not believe that it would be an extensive, global problem, it is already clear that the new situation, the separation, the fear of droplet infection changes shopping habits, and this fundamentally influences the decision-making process of consumers (Soós, 2020).

It can be concluded that the COVID-19 epidemic had a huge impact on the (domestic) population, with consequences for the lifestyle of people.

Numerous similar studies have been conducted on this topic, Alhousseini & Alqahtani (2020), in their study on COVID-19 dealt with the changed eating habits within the population (n=2401), which showed how much the proportion of home cooking and food ordering changed, how the daily nutrient intake changed and where and how often food was purchased.

Similarly, eating, shopping and consuming habits were analysed by Sidor & Rzymiski (2020) in a Polish study (n=1097), which also covered changes in alcohol consumption and smoking habits. A study conducted by Reyes-Olavarría et al. (2020) within the Chilean population (n=700) examined physical activity in addition to eating and consumption habits. In the Spanish study of Vicario-Merino & Munoz-Agustin (2020) (n=200), respondents were asked about their mental state and health status. A study (Di Renzo et al., 2020) conducted during quarantine in Italy aimed to find correlations between eating habits and mental, emotional state.

Based on these researches, the research aspects of the present article have been prepared, thus the aim is to show how the workplace, shopping habits and

health, mental / emotional situation of the examined sample group changed in Hungary during the lock down period.

Based on these research activities, specified research aspects have been prepared, thus the aim of the presented study is to show how the workplace, shopping habits and health, mental/emotional situation of the examined sample group have changed in Hungary during the lockdown period.

MATERIAL AND METHOD

The COVID-19 epidemic had a huge impact on the Hungarian population, with a number of new restrictions and their consequences that had to be managed and which also affected the way of life of the entire country. The aim of the present study was to introduce changes in the habits of private life and workplace activities and to analyse the effects on health and mental state. To examine this, a questionnaire survey conducted in June-July 2020 using social media platforms. The questionnaire was distributed to the respondents online. The questionnaire contained 41 questions. The obtained sample consisted of 362 respondents, the answers were valid, so all the answers could be included in the study. The questionnaire is not representative, but due to the large number of respondents, it is possible to identify findings that can be used in practice.

The background variables were placed in the first block of the questionnaire. Examining the background variables, the following can be stated:

- In terms of gender, 76% of the sample population were women and 24% were men.
- Age distribution of the sample was the following: 0-18 years 1.1%, 19-29 years 29.3%, 30-39 years 28.7%, 40-49 years 27.1%, 50-64 years 12.4% and the share of people over 65 was 1.4%. Thus, the proportion of people of working age was 98.6% among those who completed the questionnaire.
- In terms of place of residence, 7.5% of the sample live in the capital, 63% in a county seat, 17.4% in a settlement with a population of more than 10,000 and 12.2% in a settlement with a population of less than 10,000.
- Examining the level of educational attainment, it can be stated that the majority of respondents that completed the questionnaire (66%) have higher education degrees, followed by those that completed secondary education (31.2%). The proportion of primary education was insignificant with 1.7%, as was the group of respondents belonging to the other category (1.1%).
- Regarding the distribution of the income situation, the respondents show a large variance

by their net income per capita. 3% of the respondents earn below HUF 50,000, 11% between HUF 50,000-100,000, 15.7% between HUF 100,000-150,000, 23.5% between HUF 150,000-200,000, while and 19.9%-19.9% earn HUF 200,000-300,000 and over HUF 300,000. 6.9% of the respondents did not answer this question (it was a non-mandatory question).

In addition to the segmentation questions (background variables), the questionnaire was scoped around four main topics: work and workplace, private life/personal relationships, health status, and mental state. The same structure is followed in the scope of the analysis. Data processing was performed using SPSS and Excel software. Following the descriptive statistical analysis, crosstabs correlation analysis was performed based on gender, age, educational attainment, occupation, and income. There were also statements among the questions, which were used to inquire about the attitudes and typical behavioural pattern of the respondents, thus mainly multiple-choice and Likert-scale questions were used. Two additional methods were applied to examine scale-type questions. The 'lowest to boxes' represented the two most unfavourable results (1 and 2 answers), while the 'top two boxes' represented the two most favourable answers (4 and 5 answers) (Szakály & Szabó, 2009). This method provides an opportunity to form homogeneous groups based on the answers to the question, which better expresses the opinion of consumers.

Following the presentation of results, conclusions have been drawn and suggestions have been made. As the COVID-19 epidemic is still ongoing, it is advisable to expand the database with further population surveys in the future, and it might be interesting to compare them with the findings of the same questionnaire completed in other countries.

RESULTS

The evaluation of the results was based on the order of the topics and questions of the questionnaire. Questions were often analysed separately and where it was possible crosstab results were also presented. The four main areas of the questionnaire are workplace, private life/personal relationships, health status, and mental state. Before analysing the work environment, a general question was asked of the respondents, which assessed the impact of the COVID-19 epidemic by examining different areas of life. Responses ranged from 1 to 5, with a value of 5 to express the most significant effect, and a value of 1, if there was no effect at all on the given area.

Based on the data of Figure 1, it is clear that respondents felt that the workplace environment was most affected by the epidemic, and it is also striking that their health status was considered not affected at all. In the area of private life/personal relationships, the given responses were balanced. There was no change in the mental state of the majority, only a few respondents (41 people) indicated that the epidemic had a significant impact on their mental state. Overall, it can be stated that the epidemic had the most significant impacts in terms of the work and personal relationships of the respondents.

Workplace environment

In the scope of the analysis of workplace environment, the first question was about which sector the respondents would classify themselves in terms of their workplace and qualification (Figure 2). Based on Figure 2, it can be stated that most of the respondents classified themselves in the tertiary (46.7%), i.e. the service and trade sector, and the proportion of respondents in the 'other' category was also high (26%). The quaternary sector (higher education, science, art) is the third most important sector (19.1%), while the share of the secondary (manufacturing industry, construction) sector is 5.5% and the share of the primary (agriculture, extractive industries) is represented by 2.8%. It can be concluded based on the above that two-thirds of the respondents belonged to the tertiary and quaternary sectors, and in these two sectors there is a theoretical possibility for work that can be done from home, i.e. home office. Employees of the primary and secondary sectors do not have this opportunity, as direct human contact is required to perform the work within these sectors.

These fundamental jobs became a quasi-risk factor during the COVID-19 epidemic. Globally, millions of people are unable to apply isolation, quarantine or home office, because they work in sectors where this is not possible, such as banking, agricultural production, public transport drivers, public health care workers, health care workers and construction workers (World Health Organization, 2020b).

According to official statistics, in April and May 2020, the proportion of teleworkers or home office workers in Hungary was the highest in Budapest.

The proportion of "home office" in Budapest is around 35-38%, while in other regions this value is around 8-10%. By August, this proportion had decreased significantly, in Budapest less than 16% of the population works in the scope of teleworking, but in the Southern Great Plain and Central Transdanubia this value is around 1%, which is almost negligible. In the case of other Hungarian regions, the proportion of people working in "home office" is only 2-3%. All the above can also be observed in Figure 3.

After defining workplace sectors, the intention was to more precisely examine the fields where the respondents are employed (Figure 4).

From among the respondents completing the questionnaire, those working in primary and secondary education and administrative services (local government/office work) (10.2-10.2%), financial services (9.9%) and entrepreneurs (9.4%) were in the highest numbers. Respectively, higher education (7.5%) and representatives of the IT sector (7.2%) were the most represented among the respondents. The lowest number of respondents worked in real estate (0.6%), public transport (0.8%) and passenger transport (0.8%).

This question was analysed by means of crosstabs analysis; namely the extent to which those working in each occupation had the opportunity to use "home office". This proportion was almost 100% among those working in the financial services sector, while more than 90% of those working in primary, secondary and higher education had the opportunity to work in "home office". Employees of the IT sector, 90% of the artists, almost half of the entrepreneurs and those working in the field of warehousing and logistics were able to do the work completely from home. There was almost no opportunity for those working in the catering/restaurant industry, nor for pharmacists and pharmaceutical assistants.

Most of the respondents worked in employee positions (68%), 11% were in management positions, 9.7% were entrepreneurs, and 3.3% were unemployed. The remaining few percent was split between retirees, students, and those in other positions.

When asked about their work schedule, two-thirds (66%) of the sample population also indicated that they work full-time (eight hours a day or 40 hours a week), 7.2% work part-time (two, four or six hours a day) and almost 15% of the respondents work according to an individual schedule. Overall, two-thirds of the respondents were full-time employees. Most respondents (86.7%) had no change in their work schedule during the COVID-19 epidemic, with only 8.6% answering yes to the question. Nearly 66% of those who completed the questionnaire had the opportunity to work in "home office" during the quarantine period of the COVID-19 epidemic, and 32.3% of them did not have any problems with the transition, while 18.5% had difficulty at the beginning but then got used to it. For 14.6% of the respondents, the entire period was difficult because the "home office" was only a partial solution. The possibility of working from home was compared with the gender ratio by crosstabs analysis, and it was found that 74.5% of those working in "home office" were women and 25.5% were men.

The respondents which had the opportunity to work in "home office" were asked if their schedule had

changed due to the "home office". 21.5% of the respondents said they had to spend more time doing their job, 17.7% said they had more time for themselves, and 27.1% thought nothing had changed during the COVID epidemic in terms of their schedule. Findings of crosstabs analyses showed that of the 275 female respondents, 42 had experienced a decline in their efficiency, while 33 reported improvements on this field. However, of the 87 male respondents, 19 improved and 15 declined during this time in terms of efficiency, the other respondents had no change in this field.

To the question, "How long did it take you to commute and travel home on average per day before the COVID-19 epidemic broke out?" nearly half of the respondents (47%) indicated that it took less than half an hour for them to travel, 32.9% needed 0.5-1 hour, while for 15.7% travelling to the workplace took between one and two hours. A negligible proportion of the respondents (3%) had two-three hours of commuting time, while the remaining 1.4% had more than three hours. They were then asked about what happened to this time during the lockdown period. It was found that for 32.9% of the respondents commuting time became time to be spent freely on their own, 26% were also free to spend this time, but used it to perform some other task, and 16.6% still spent this extra time on work.

The next question was whether new useful habits/best practices had emerged from working during the COVID-19 period. The majority of the answers to the questions stated that, in part, some useful new practices appeared in daily work (46.4%), and 46.1% indicated that nothing had changed at all. In total, 7.5% of respondents answered yes to the question. These include the organization of online meetings, discussions, conferences, the more frequent use of online sales and digital tools, less "paperwork", quality time with family, more attention to eating, sports and hygiene.

Related to the above question there was another open-ended question concerning the habits that respondents had to incorporate into their daily lives and did not like to do so. Most of them marked wearing a mask and hand disinfection, but many indicated learning at home with the children because "teachers just sent the learning material" and also the shopping time zones. The answers also include "extended working hours, 10-12 hours a day instead of eight hours", "obligatory reporting about the time spent at home", "extreme amount of time spent on the phone and in front of the computer", "cooking", "reduction of social life to 0", and many complained about the answers given to the previous question, as online meetings and phone calls were a burden for them.

The majority of respondents (63.3%) did not need to purchase a new device for the "home office" and

only 19.3% needed to do so. If this was necessary, 8.8% of the respondents spent up to HUF 50,000 on this, and only 5.5% of the respondents needed an online subscription, which covered up to HUF 5,000.

Private life / personal relationships

In any case, it can be stated that social distance and quarantine obligations had a significant pressure on the sensitive emotional sphere of individuals (Di Renzo et al., 2020). Therefore, in the scope of this topic respondents were asked to rate from 1 to 5 how their relationship with their environment has changed during the COVID-19 epidemic in general (Figure 5) and with the people living in the same household (Figure 6). Respondents could choose from the following options: 1 - completely deteriorated, 2 - somewhat deteriorated, 3 - nothing changed, 4 - there was a slight improvement, 5 - a significant improvement was experienced.

In terms of their relationship with the environment, respondents mostly marked answer 3, thus 199 people claimed that their relationship with their environment did not change. 56 people stated that there was a slight improvement, while 22 people said there was a significant improvement in their relationship with their environment. According to 78 people, their relationship with the environment deteriorated slightly and according while for six people the decline was serious. The answers to the question were examined using the lowest to boxes and top two boxes methods. The two most unfavourable results (answers 1 and 2) and the two most favourable answers (answers 4 and 5) were also determined. Overall, 55% of environmental relationships of the respondents remained unchanged, while 23% of respondents had a negative change (lowest to boxes - answers 1 and 2) and 22% had a positive development (top two boxes - answers 4 and 5). The above findings are presented in Figure 5.

Figure 6 shows the answer to the question about how the relationship of respondents changed with the people living in the same household with them. In this case the given answers were similar to the ones of the previous question, i.e., there was no change in the relationship of the majority of respondents with their family, namely 220 people of the sample, i.e. 61% of the population. There was a smaller (3%) or greater (7%) change in the negative direction for 10% of the respondents (lowest to boxes), while there was a shift in the positive direction for almost 29% of the respondents (top two boxes). There was a small improvement for 17.7% of the respondents and a large improvement for 11.1%.

The next of the privacy-related questions (*Please rate on a scale from 1 to 5 how your relationship with the following people has changed: (1 - completely deteriorated, 2 - slightly deteriorated, 3*

- nothing changed, 4 - there was a slight improvement 5 - a significant improvement was experienced), asked the respondents about specific individuals in their environment and about how their relationship in general changed due to the epidemic (Figure 7).

Based on Figure 7, it can be concluded from the answers of the respondents that in most of the cases there was no change, the respondents marked answer 3 (275 people), most notably in the case of distant relatives. The relationship with the spouse/partner, parents and children changed in the most positive direction, thus the relationship with those living in the close, immediate surroundings of the respondents improved during the epidemic, as they could rely on each other the most. With more distant relatives and colleagues that are also a little more remote, the relationship changed in a negative direction as well, i.e. multiple respondents marked the first and second answers. However, there was also a positive change in the case of more distant relatives and colleagues, respectively 31 and 50 respondents indicated that there was a slight improvement, while a serious improvement was experienced in the case of 10 and 13 people.

The following question dealt with if there was a specific person respondents could rely on/receive help from with anything during the COVID-19 epidemic and quarantine. 157 respondents clearly answered yes to the question, indicating that there were multiple people they could rely on (43.4% of the sample). 39% of the population indicated that yes, there was a certain person they could count on, thus in total, 82.4% of respondents had someone to rely on at the time of the epidemic. Only 17.7% answered no, meaning they could not count on anyone during quarantine.

Subsequently, in the scope of an open question respondents were asked about the persons they could count on; they had the opportunity to mark multiple answers (Figure 8). This question was seeking the answer to who would be the person most often marked by the respondents, i.e. the mode (the most frequently occurring element). Thus, the most frequently marked answer was the spouse/partner (220 people), followed by parents (167 people), children (93 people), and other relatives (89 people).

Currently, information and research on the psychological effects of the COVID-19 epidemic on the population remains limited. In fact, the researchers focused mainly on dealing with the epidemiology and clinical characteristics of infected patients, viral genomic characteristics and governmental challenges, changes in the health care and economic fields. In addition to these priorities, it is important that social and behavioural sciences also contribute to the elaboration and optimization of individual and collective responses to the crisis. In the course of an epidemic, people

might react irrationally to social information, and therefore governments need to make people aware of the situation without alert (Di Renzo et al., 2020).

The COVID-19 epidemic, curfew restrictions and social distancing have changed consumption and shopping habits. Consumers are adapting and new habits will emerge through technological advances, demographic change, and innovative methods (Sheth, 2020).

Health condition

As shown in Figure 9, mood swings among the population as a result of the COVID-19 epidemic had no effect on the health status of the respondents at all. Nearly 80% of the respondents indicated that their mood swings had not affected at all or had only slight effects on their health. The remaining nearly 20%, on the other hand, indicated a change in their health condition. In a later question, respondents were also asked about the direction of this change, and twice as many respondents marked the negative than the positive effect.

The following statements in the questionnaire were intended to find out what other effects characterized the respondents, which impacts might have affected their health condition. The following results were obtained: nearly 46% of the respondents did not have time to engage in sports, while 32% spent their free time doing sports. Based on the top two boxes method, it can be stated that a significant proportion of the respondents (more than 116 people marked that answer) did more sports in their free time, and 137 people were able to spend their free time as they intended. Using the same top two boxes grouping method for the statements, it was found that 142 people had more free time, 163 people were able to spend more quality time with their families, and 130 people had to work more than before. 168 of the respondents indicated that they had more to do in the family and household, and 140 marked the answer saying that they often felt tired and exhausted. Some of the statements were examined using the lowest to boxes method, and it was found that 145 people had less free time compared to the previous period, but were less stressed or irritated during this period (169 people), and 72% stated that during this period, illnesses causing minor symptoms were avoided. Summarizing the above results, it can be concluded that the time spent home during the lockdown had a more positive effect on the health of the respondents.

Mental state

When examining the mental state of the respondents, the aim was to assess the changes in the mood of the respondents before, during and immediately after the first wave of the epidemic. Figure 10 below shows the findings according to

which that the vast majority of people tended to have a declining mood during the epidemic, while after the lockdown it had mostly recovered to the same level as before the epidemic. The answers given to one of the following questions show that workplace relationships were not affected by mood changes at all, with only 8% of respondents stating they experienced a significant effect. Nearly 50% of respondents claimed they missed the previously usual daily schedule, which had a negative effect on their mood.

58% of respondents stated they would not be happy if another wave of the epidemic would result in a similar home quarantine situation, 34% of respondents would not mind, while 8% would be particularly happy to be able to work from home again. Nearly 26% of respondents have developed a number of new habits/good practices in their private lives that they are happy to pursue in the long run. In terms of new habits, online food ordering and delivery, online purchase of clothing and technical items were ranked first, but online meetings and conferences also received over 100 votes as a new habit. Respondents also highlighted more attention to hygienic conditions and more thoughtful shopping.

Other authors report similar experiences, as demand for certain products has increased significantly as a result of the epidemic, such as hygiene products, food, tools for working at home, and in addition, goods related to gardening and sports (GKI Digital, 2020).

The majority of respondents, 32 people identified wearing a mask as the least popular, forced new habit, but some of the participants also complained about the high number of online meetings or participation in online presentations.

CONCLUSIONS AND SUGGESTIONS

The results of the survey show that the pandemic and the resulting social distancing have fundamentally changed the habits of consumers related to work, eating, contact and health preservation. It is considered important to mention that the results of the research and the drawn conclusions focus only on short-term effects.

According to the respondents, the work environment was the most affected by the epidemic, and a number of new habits have emerged in terms of their private life, which they are happy to continue in the future. Their health condition was considered not having experienced any effect at all. Regarding their mental state, the majority did not report any relevant change, but nearly 10 percent of the respondents were also mentally damaged as a result of the epidemic. Based on the responses of the participating respondents, it was concluded that employees of

the tertiary and quaternary sectors have the opportunity to perform their work from home, while employees of the primary and secondary sectors do not have the option to do so, as personal contact is required for their work. Workplaces have thus become a sort of risk factors during the COVID-19 epidemic, as some people were unable to isolate themselves in quarantine or work in “home office” because of their work as the sector does not allow it. Respondents who have had the opportunity to work in “home office” are able to do their job with almost similar efficiency. Saving the time of commuting to work, some of the respondents spent their extra time with useful activities: sports, housework, valuable self-time. A number of useful new habits have emerged that have been shaped by the situation, and consequently the respondents move much more flexibly and easily within the online space. Purchasing online food, clothing, and technical items became an almost daily routine in the survey sample, as did online meetings and appointments, all of which resulted in improved efficiency. For the majority of the participants, the forced staying at home did not cause any qualitative change in their relationships. There were also negative and positive extreme responses, but only to a small extent; relationships of people living in the same household moved in a more positive direction according to the responses.

SUMMARY

One of the most important topics today is the COVID-19 epidemic and its impact on people. A number of scientific literature already addresses this issue, a significant portion of which was taken into consideration in compiling the applied questionnaire. In the course of the research, changes in different areas of life brought by the COVID-19 epidemic were assessed within the Hungarian population. Obviously, the results of the total of 362 respondents cannot be considered representative for the entire population, but they do provide a comprehensive picture of the changes in their private life, work, health and mental situation. From the responses received, it was possible to obtain a general overview of the situation among the respondents as to how they were affected by the changes in work and private life as a result of the COVID-19 epidemic in terms of the above mentioned aspects, what new habits emerged that made everyday life more comfortable for them and which they are happy to keep even after the end of the pandemic due to their practicality, and what were the forced habits that were a burden only. At present, it is impossible to see either at the global or the local level how long the uncertainty caused by COVID-19 will last. Consumer market

players need to develop and prepare for multiple scenarios. There is now a clear competitive advantage for those who have been able to switch to online business overnight. As a result, there is strong pressure on other market players: to survive, they need to find new sales channels and change their communication strategies so that consumers do not move away from them under the changed circumstances. Consumer trends that had already emerged before the COVID-19 pandemic further strengthened and will move trading companies to put their business on a new basis.

REFERENCES

- [1] Alhuseini, N., & Alqahtani, A. (2020). COVID-19 pandemic's impact on eating habits in Saudi Arabia. *Journal of Public Health Research*, 9(3). <https://doi.org/10.4081/jphr.2020.1868>
- [2] Central Statistical Office (2020). *Proportion of teleworkers or home office workers by region*. <https://ksh.hu/heti-monitor>
- [3] Di Renzo, L. et al. (2020). Psychological Aspects and Eating Habits during COVID-19 Home Confinement: Results of EHLC-COVID-19 Italian Online Survey. *Nutrients* 2020, 12, 2152.
- [4] GKI Digital (2020). *Rekordbővülést hozott a koronavírus az e-kereskedelemben [The coronavirus has brought record growth in e-commerce]*. https://gkidigital.hu/2020/09/02/koronavirus_e-kereskedelem_oki_2020/
- [5] John Hopkins University (2020). *Coronavirus*. <https://coronavirus.jhu.edu>
- [6] Reyes-Olavarría, D. et al. (2020). Positive and Negative Changes in Food Habits, Physical Activity Patterns, and Weight Status during COVID-19 Confinement: Associated Factors in the Chilean Population. *Int. J. Environ. Res. Public Health* 2020, 17, 5431.
- [7] Sheth, J. (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die? *Journal of Business Research*. Volume 117, September 2020, p. 280-283. <https://doi.org/10.1016/j.jbusres.2020.05.059>
- [8] Sidor, A. & Rzymiski, P. (2020). Dietary Choices and Habits during COVID-19 Lockdown: Experience from Poland. *Nutrients* 2020, 12, 1657.
- [9] Soós, G. (2020). Az ételmiszer-fogyasztói szokások változása a COVID-19 vírus megjelenéséhez kapcsolódóan Magyarországon [Changes in food consumer habits related to the appearance of the COVID-19 virus in Hungary] *Marketing & Menedzsment*, 54 (3), o. 15-27. doi: 10.15170/MM.2020.54.03.02

- [10] Szakály, Z. & Szabó, G. G. (2009). Az élelmiszer-önrendelkezés aspektusainak elemzése termelői és fogyasztói szemszögből. [Analysis of Aspects of Food Self-Determination from the Perspective of Producers and Consumers] In: *LI. Georgikon Napok Konferencia kiadvány*, ISBN: 978-963-9639-35-5. Keszthely, 2009. október 1-2. p. 861-870.
- [11] Velavan, T. P. & Meyer, C. G. (2020). The COVID-19 epidemic. *Tropical Medicine & International Health*, 2020 March; 25 (3): 278–280. Published online 2020 Feb 16. doi: 10.1111/tmi.13383
- [12] Vicario-Merino, A. & Munoz-Agustin, N. (2020). Analysis of the Stress, Anxiety and Healthy Habits in the Spanish COVID-19 Confinement. *Health Sci J.* 14 No. 2: 707.
- [13] World Health Organization (2020a). *Coronavirus disease (COVID-19) pandemic*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- [14] World Health Organization (2020b). Novel coronavirus (2019-nCoV). *Situation report 77*. 2019. Accessed March 30, 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200301-sitrep-41-covid-19.pdf?sfvrsn=6768306d_2

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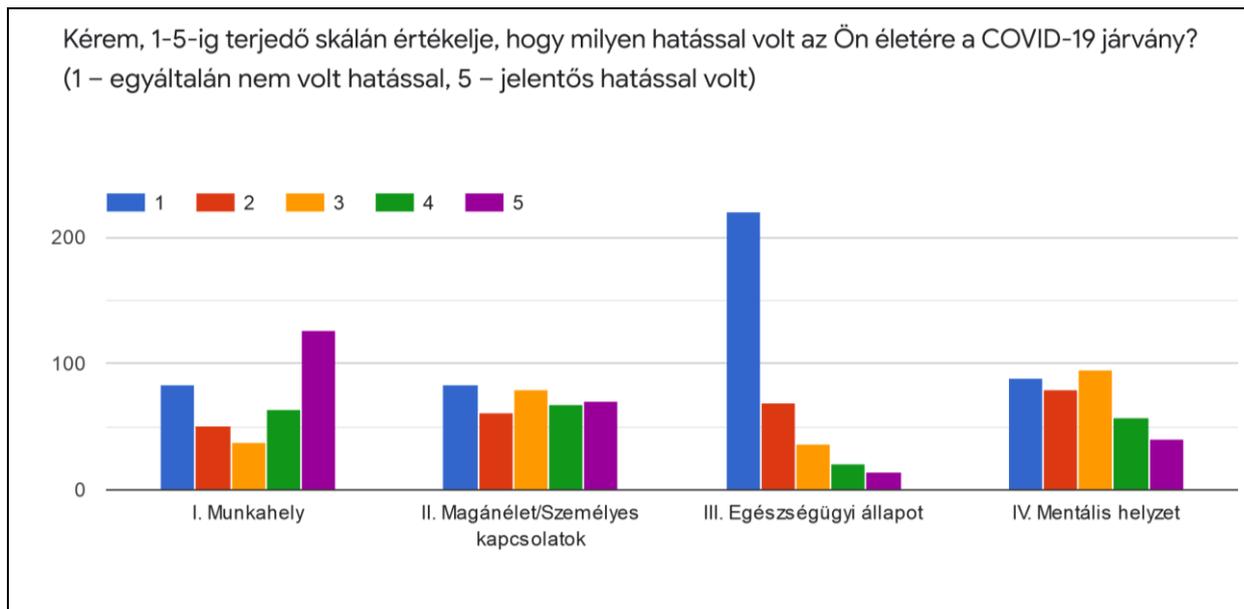


Figure 1
The impact of COVID-19 on different areas of life
Source: own editing based on research data, 2020

Question in the Figure 1: Please rate on a scale of 1-5 how the COVID-19 epidemic has affected your life?
(1 – it had no effect at all, 5 – it had a significant effect)
Munkahely = Workplace
Magánélet/személyes kapcsolatok = Private life/personal relationships
Egészségügyi állapot = Health condition
Mentális helyzet = Mental state

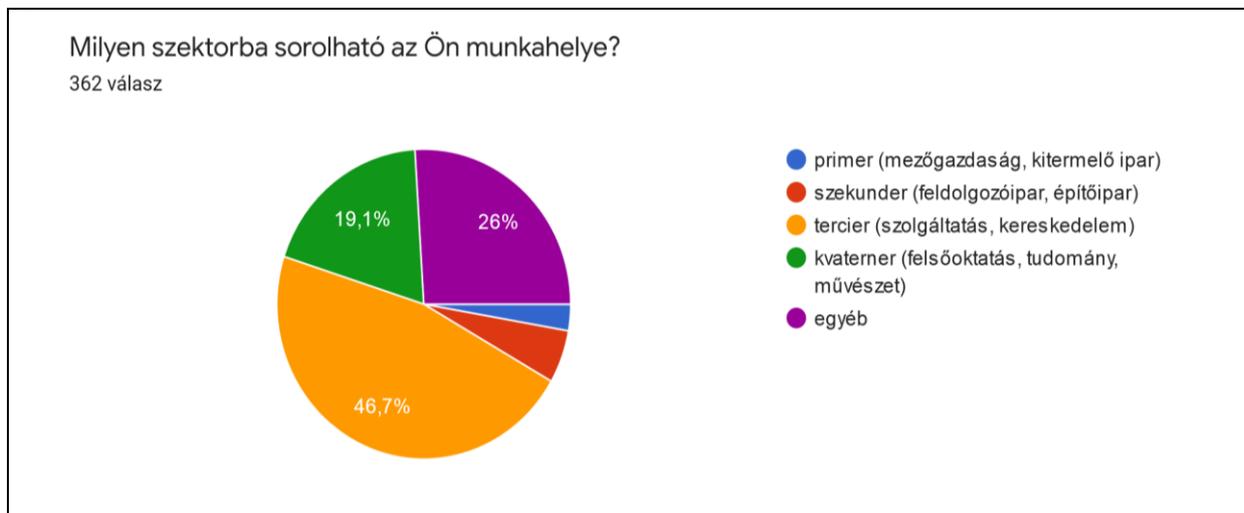


Figure 2
Composition of respondents by sector
Source: own editing based on research data, 2020

Question in the Figure 2: What sector does your workplace belong to? - 362 responses
primer = primary (agriculture, extractive industry)
szekunder = secondary (manufacturing industry, construction)
tercier = tertiary (service, trade)
kvaterner = quaternary (higher education, science, art)

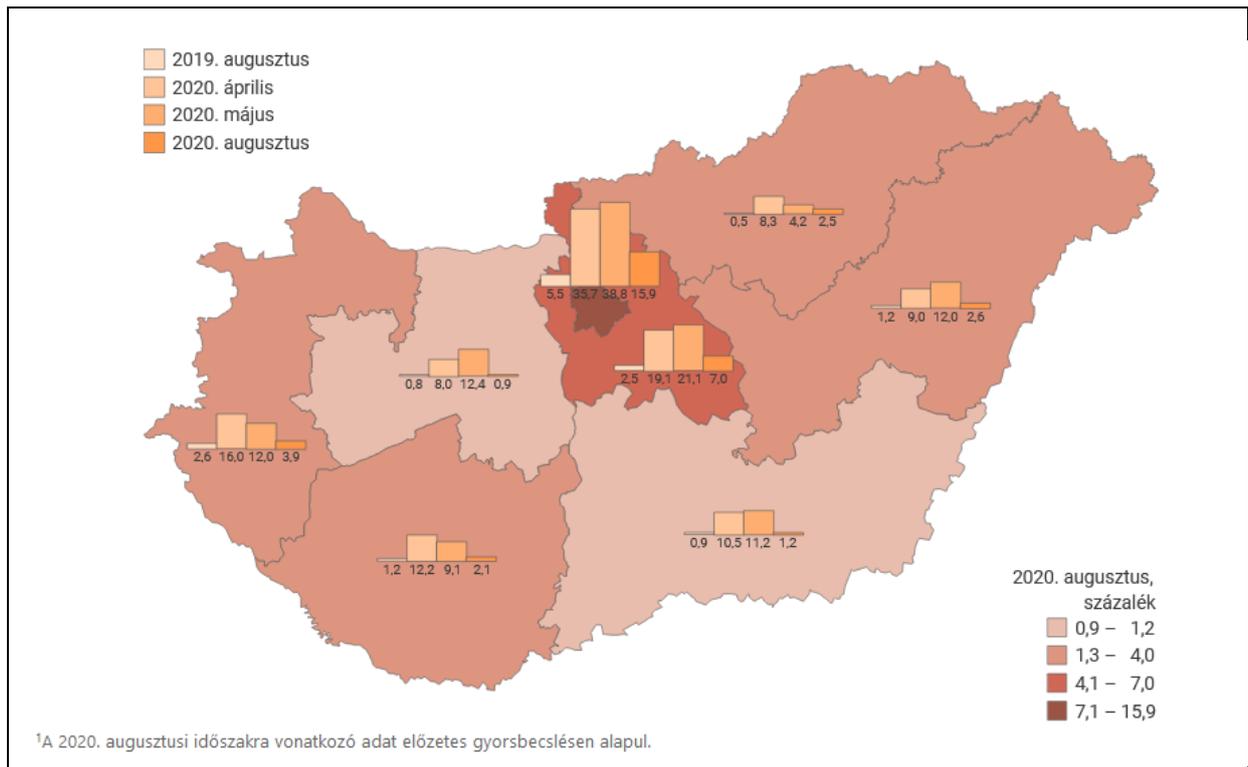


Figure 3
Proportion of teleworkers or home office workers by region (within 15-74 year olds)
 Source: Central Statistical Office, 2020

August 2019, April 2020, May 2020, August 2020
 százalék = percentage
 Data concerning August 2020 are based on a preliminary flash estimate

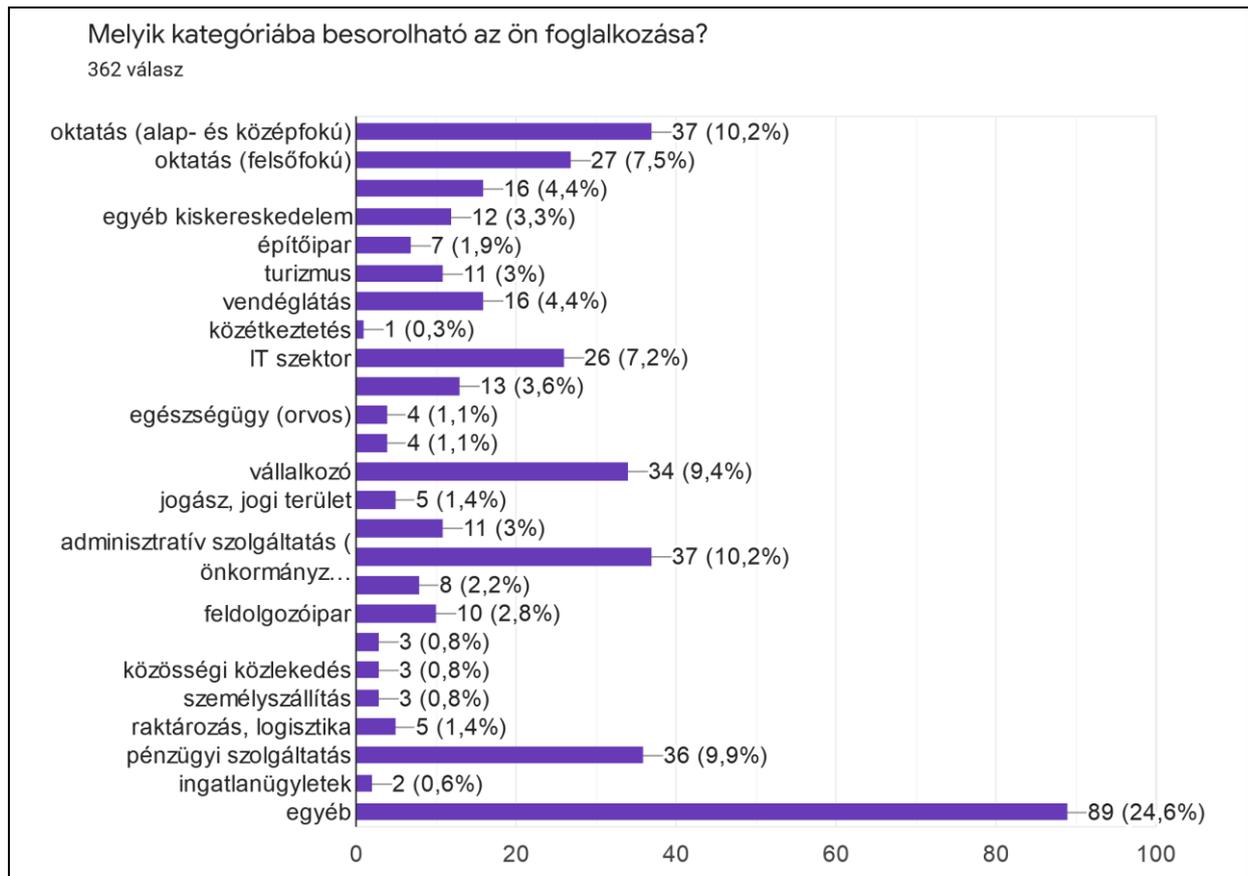


Figure 4
Distribution of respondents by field of employment
Source: own editing based on research data, 2020, 362 responses

Question in the Figure 4: Which category does your occupation belong to?
 education (primary and secondary)
 education (higher)
 other retail trade
 construction industry
 tourism
 catering
 public catering
 IT sector
 health (physician, doctor)
 entrepreneur
 lawyer, legal field
 administrative service
 municipal, local government service
 manufacturing industry
 public transport
 passenger transport
 warehousing, logistics
 financial service
 real estate transactions
 other

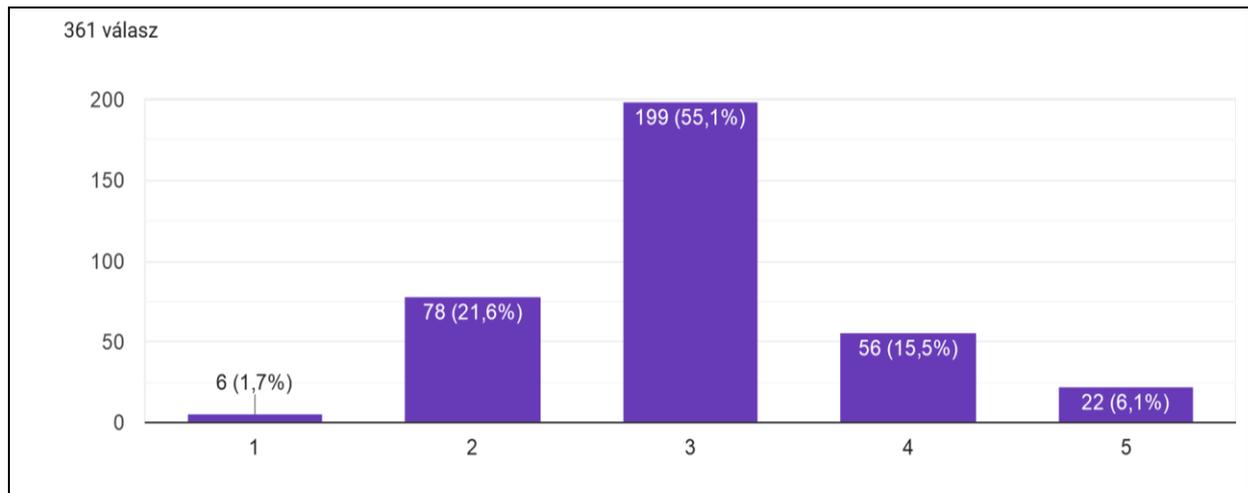


Figure 5
Please rate on a scale of 1 to 5, how has your relationship changed with your environment during the COVID-19 epidemic in general?

*Source: own editing based on research data, 2020
361 responses*

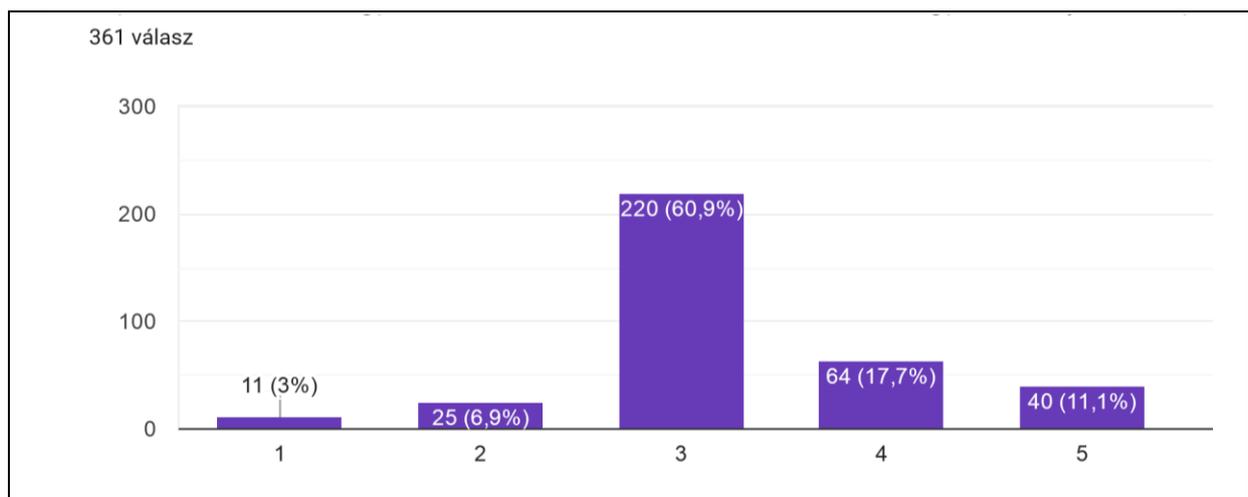


Figure 6
Please rate on a scale of 1 to 5, in general, how has your relationship changed with your household during COVID-19?

*Source: own editing based on research data, 2020
361 responses*

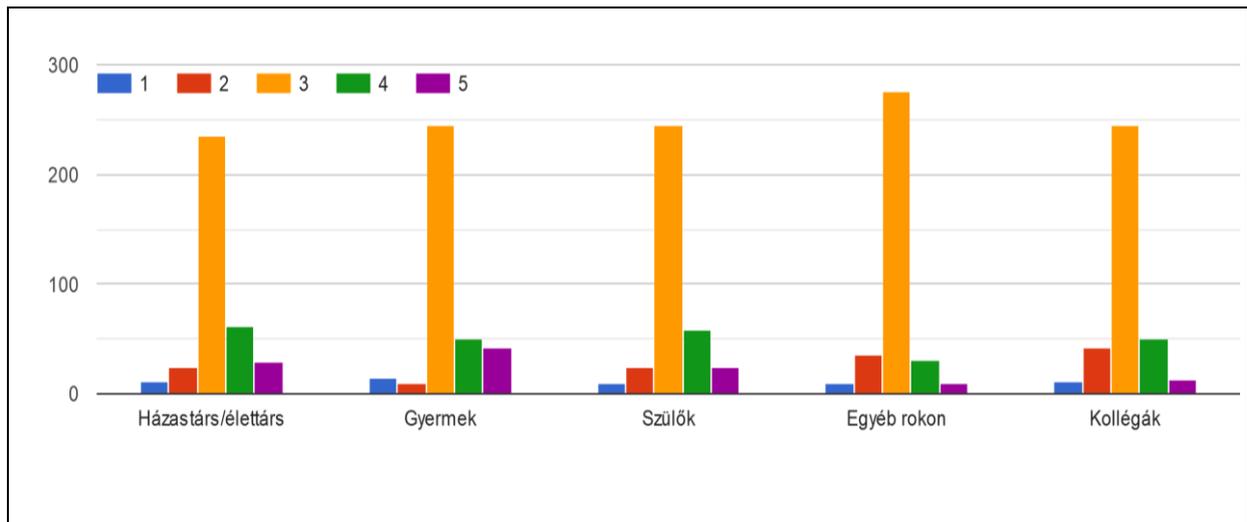


Figure 7

Please rate on a scale of 1 to 5, in general, how has your relationship changed with the following people during the COVID-19 epidemic?

Source: own editing based on research data, 2020

Házastárs/élettárs = Spouse/life partner

Gyermekek = Child

Szülők = Parents

Egyéb rokon = Other relative

Kollégák = Colleagues

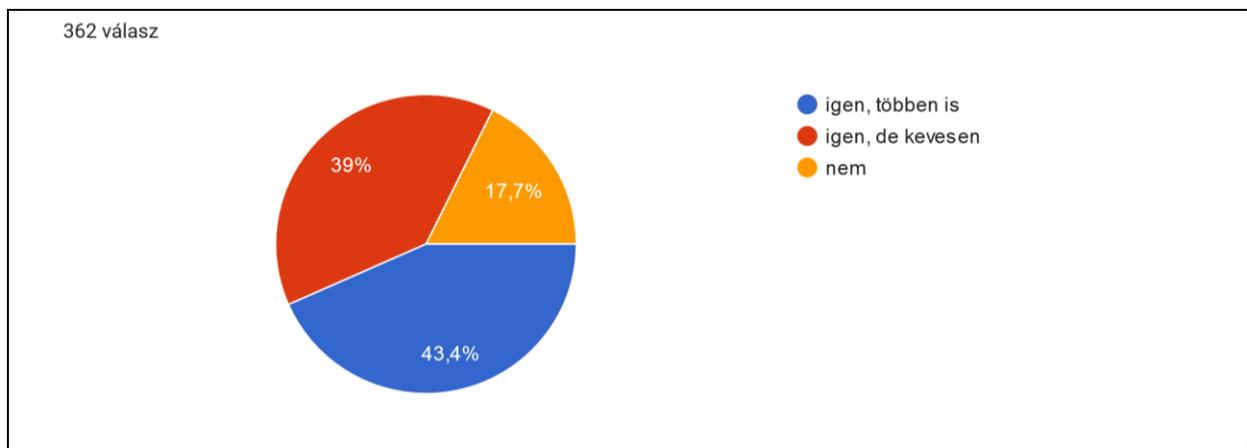


Figure 8

By your opinion, was there anyone you could rely on/receive help from during the COVID-19 epidemic and quarantine?

Source: own editing based on research data, 2020

362 responses

igen, többen is = yes, there multiple people

igen, de kevesen = yes, but only a few or a certain person

nem = no, there was no one

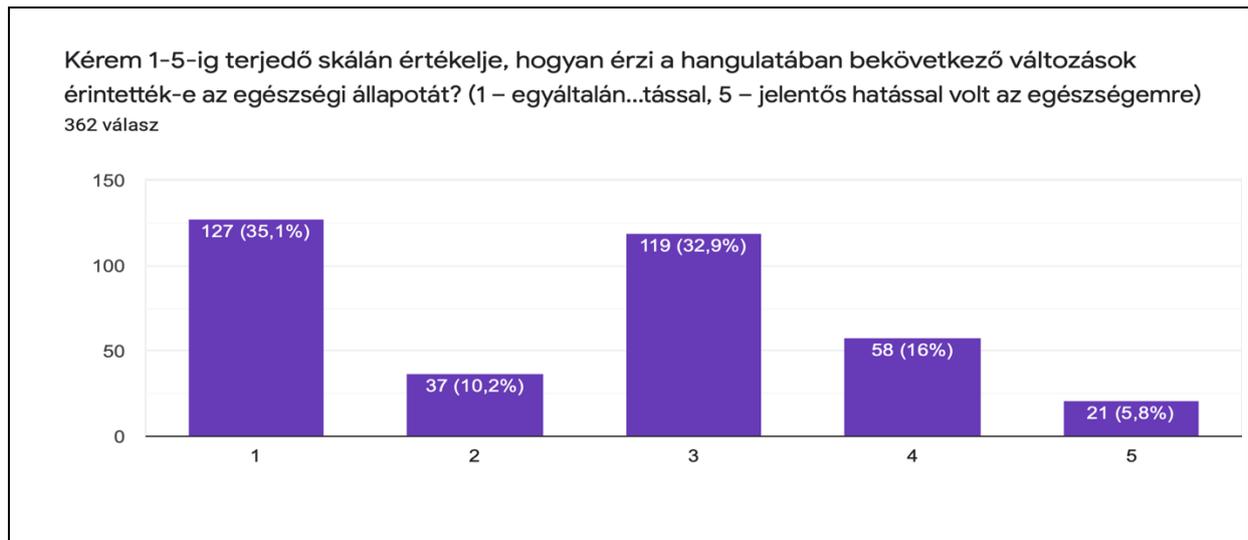


Figure 9

Please rate on a scale of 1-5, how do you feel the changes in your mood have affected your health?

Source: own editing based on research data, 2020

Question in the Figure 9: Please rate on a scale of 1-5, how do you feel the changes in your mood have affected your health? (1 - they had no effect at all, 5 – they had a significant effect on my health), 362 response

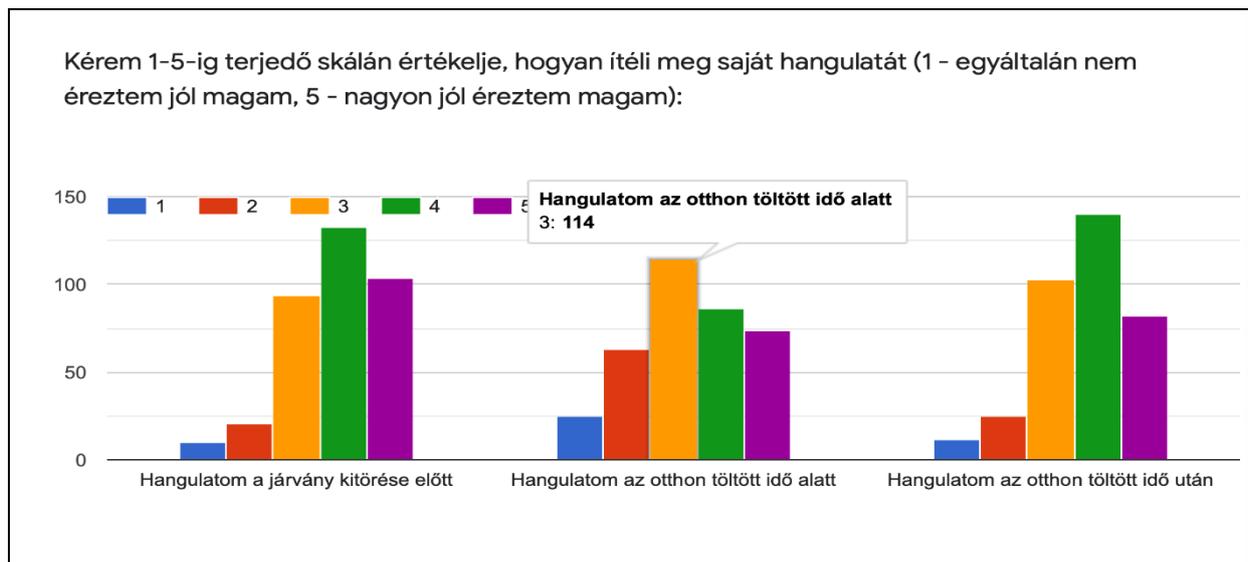


Figure 10

Please rate on a scale of 1-5, how do you rate your own mood before, during and after the first wave of the epidemic?

Source: own editing based on research data, 2020

Question in the Figure 10: Please rate on a scale of 1-5, how do you rate your own mood

(1 - I did not feel good at all, 5 – I felt very well)

My mood before the outbreak of the epidemic

My mood during the time spent at home

My mood after the time spent at home