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ORIGINAL ARTICLES

Quality of life impairments and stress coping strategies during the Covid-19 pandemic isolation and quarantine – A Web-based survey

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Abstract: *Isolation and quarantine during the Covid-19 pandemic affected the lifestyle and daily functioning of the population around the world, leading to social, psychological, and economic changes which further multiplied the stress related to the threat of coronavirus contagion by adding financial, relational, academic, professional and mental health vulnerabilities. To assess the impact of isolation and quarantine over the quality of life in the Romanian population, we conducted a Web-based survey focused on the evaluation of stress level, perception of lifestyle changes, communication patterns, mental health, major concerns, perception of one's future, but also on the preferred coping strategies that people have used to deal with the isolation stress. The answers were collected during one month and the results for the first 2 weeks of quarantine/isolation were compared with the results after one month of such regimen. Several recommendations based on the survey results analysis were formulated regarding possible strategies for decreasing the impact of stress factors over the general population and specific, vulnerable groups.*

Keywords: *Covid-19, pandemic, quality of life, stress coping strategies, functional impairment, depressive disorders, anxiety disorders, behavioral addictions*

QUALITY OF LIFE AND COPING STRATEGIES DURING QUARANTINE AND ISOLATION IN THE CONTEXT OF COVID-19 PANDEMIC

Quarantine is defined as a separation of people potentially exposed to contagious disease from other members of the society until the results of their analyses turn negative or until further medical interventions are needed [1]. Regarding the Covid-19 pandemic, this procedure has been considered necessary for people who traveled in the so-called "red zones", where high rates of coronavirus disease have been reported, and they were screened for infection initially and after two weeks of quarantine [2]. Also, the quarantine regimen involved special places for monitoring these people who were considered at risk for developing Covid-19.

Isolation is conceptualized as a separation of people who have been in contact with infected others, but who do not have any symptoms yet or have only mild symptoms, depending on national healthcare services' operational procedures [2]. This concept involves the isolation of people in their own homes for two weeks and active monitoring from their GP or Public Healthcare Services [2]. Self-isolation or lockdown is defined as a method to maintain social distancing by reducing the time spent out of the house for each asymptomatic person, and it was enforced during the Covid-19 pandemics by the law. Self-isolation is a broader

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concept but it is fundamentally a population-large method of prevention, applied in cases of contagious diseases, with a duration defined by national laws during the state of emergency. It does not involve relocation to a special quarantine-designed institution, each self-isolated person remained at his or her home for a duration specified by the law, and maintains the right to leave his/her home for a pre-defined set of specific purposes.

According to a recent review (n=24 papers), the main psychological negative effects of quarantine were post-traumatic stress symptoms, confusion, and anger, with the most important stressors being long quarantine duration, fear of contamination, frustration, boredom, lack of sufficient supplies, inadequate information, financial loss, and stigma [1]. During a SARS outbreak in Singapore, the contagious infection-related psychiatric and posttraumatic morbidity rates reached 22.9% and 25.8%, respectively [3]. According to this research, the most significant factors associated with psychiatric disorders, in general, were being seen at fever stations, younger age, increased self-blame, less substance use, while posttraumatic disorder was associated with the increased use of denial and planning, as coping mechanisms [3]. Another Web-based survey that examined the psychological impact in a quarantined Canadian population during a SARS outbreak (n=129) revealed a high prevalence of psychological distress, with symptoms of posttraumatic stress disorder and depression observed in 28.9% and 31.2% of responders [4]. A longer duration of quarantine was associated in this paper also with an increased prevalence of posttraumatic stress disorder, and acquaintance with or direct exposure to someone with a SARS diagnosis was also a risk factor for this pathology [4].

In the context of the Covid-19 pandemic complete social isolation during many consecutive weeks was considered in Italy similar to a large-scale, absolutely new social experiment [5]. Therefore, activation of healthy coping strategies could be of major importance in the prevention of psychiatric disorders onset in this population. Separation, isolation, boredom, loneliness, feelings of uncertainty are challenges for many quarantined or isolated people [6]. Healthcare workers suffered from quarantine as well, as they accused exhaustion, alienation, anxiety, irritability, insomnia, indecisiveness, decreasing work performance, etc [6, 7]. Also, healthcare personnel had more severe symptoms of posttraumatic stress disorder than the quarantined general population, experienced greater stigma, more avoidance after quarantine, were more likely to believe they had been contaminated and were more preoccupied with the risk of infecting others [7, 8].

Treatment adherence may be negatively affected by denial, anxiety, depression, feelings of despair, and also the risk of suicide or aggression should be taken into account by physicians who take care of patients diagnosed with Covid-19 [9]. Obsessive-compulsive symptoms may appear as a consequence of repeated washing and temperature checking [8]. Financial losses, societal rejection, disappointment, and discrimination are other factors that should be addressed by targeted interventions [1, 10].

Regarding the main keypoints for the psychological crisis intervention in Covid-19- diagnosed patients in China, a group of authors suggested understanding of the mental health status in different categories of population, identifying people who are at high risk of suicide and aggression, and targeted interventions for those in need [9]. Chinese researchers have established four levels of populations to design specific interventions for each one: level 1 population includes the most vulnerable people to mental health problems, e.g. hospitalized patients with severe organic diseases, frontline health care professionals, level 2 includes isolated patients with minimal symptoms and patients at fever clinics, level 3 includes people with close contacts, family members, colleagues, friends, etc, and level 4 people who are affected by the epidemic preventative measures, susceptible people and general population [9].

OBJECTIVES AND METHODOLOGY

Although stress is considered a normal response to the coronavirus pandemic, quarantine and isolation are periods of high risk for the development of stress-related disorders [11]. This risk is high especially in vulnerable populations, e.g. people with a known history of mental disorders, currently remitted or controlled by treatment, and professionals who are on the frontlines of the coronavirus pandemic (physicians, police officers, military personnel, etc), but since the lockdown was enforced by the law to the general population as a preventative measure against spreading the Covid-19, many other populations were exposed to the risk of developing stress-related disorders (e.g., elderly people, patients relying on the support of others due to physical or mental impairments, patients immobilized in their own homes, people with chronic treatments which involved regular visits to the hospital, people who were unable to work from home and who have lost their financial support, owners of small and medium enterprises that could not run their businesses during the state of emergency, etc).

The main objective of this research was to evaluate the impact of the isolation stress over the quality of life in people from Romania during the first period of the Covid-19

pandemic. The secondary objective was to find out how people have been coping with isolation-induced stress and related factors during the same period.

Data on the effect of isolation and quarantine in terms of quality of life and coping strategies were collected through an online survey that could be completed by the respondents between the 21st of March and 20th of April 2020. During one month, 941 respondents answered the online survey, and their answers were analyzed after the first two weeks (n=103) and at the end (n=941) of the before-mentioned period. A comparative analysis of the responses from the two stages was also performed.

The survey was entitled "The psychological impact of the Covid-19 pandemic in the population subjected to self-isolation/quarantine" and consisted of 34 questions (Q1-Q34), with a completion time of 10-15 minutes. The answers of the people who completed 100% of the survey questions were analyzed (n=941).

QUALITY OF LIFE IMPAIRMENTS AND COPING STRATEGIES TO STRESS DURING THE COVID-19 PANDEMIC

Respondents were adults (81.5%), elderly (17.5%) and adolescents (1%), coming from urban (86%) or rural (14%) environment, both citizens from Romania (97.3%) and Romanian citizens residing in other countries (Great Britain, Germany, Austria, Canada, the Republic of Moldova, Tunisia, Belgium, the Czech Republic, Spain, Cyprus, Portugal, Italy and the USA, 2.7%). The respondents were female (81%) or male (19%), and they were married 54.7%, unmarried 23.7%, widowed 8.6%, or divorced 13%.

People who completed the questionnaire were living mostly in self-isolation for prophylactic purposes (68%), in quarantine (6.5%) or isolation (symptomatic) (3%), for one week (11, 5%), two weeks (8.5%) or more than 14 days (80%) (Figures 1 and 2).

The respondents were professionals from the medical staff (10.5%), police officers and auxiliary personnel (1.2%), workers in trade business with direct contact with potentially-infected people (5.3%), or were professionals involved in other high-risk categories of contracting Covid-19 (12.3%). Answers provided by respondents who did not fall in any of the previously mentioned professional categories represented 70.7%.

The educational background of the respondents was university (43.4%), postgraduate (24.6%), or high school (19.2%).

Survey respondents lived in the same home with children up to 7 years old (9%), children aged 8-14 (6.7%), adolescents (11%), elderly (over 65 years old) (12.7%), people with disabilities or other severe illnesses (2%), people undergoing treatment for various organic diseases (5.6%), people diagnosed with mental disorders and currently on specialized treatment (1.1%), or people who took care of other vulnerable individuals (3%). Among the respondents, 3% had mental disorders and were currently receiving treatment, while 13% had somatic disorders.

Figure 1: In which situation are you now? (Q2)

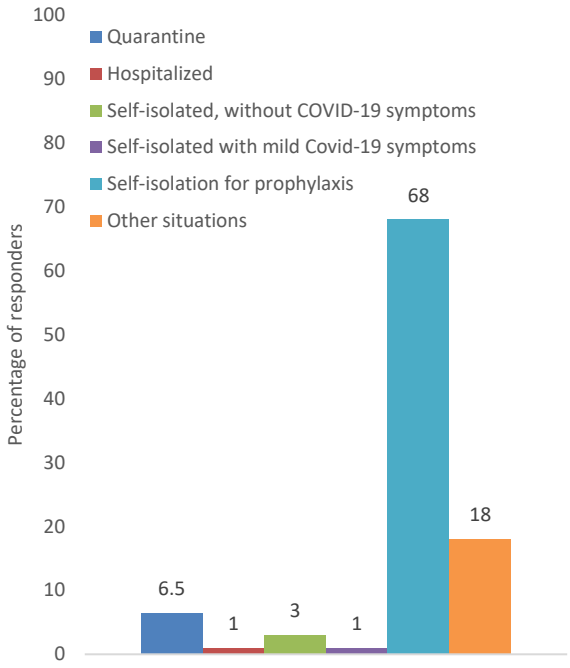
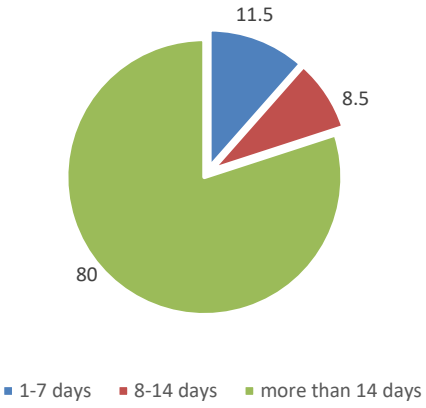


Figure 2: How long have you been in isolation or quarantine? (Q3)



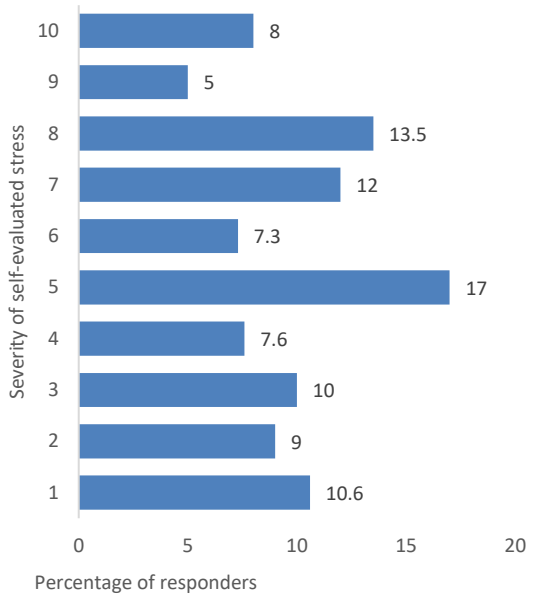
QUALITY OF LIFE IMPAIRMENTS DURING COVID-19 PANDEMIC- ASSOCIATED QUARANTINE AND ISOLATION

The level of stress induced by isolation or quarantine was felt differently by respondents, ranging from absent (10.6%) to extreme (7%) (Figure 3). Most of the respondents considered

the level of stress associated with the quarantine or self-isolation regimen to be moderate (35.6%).

Communication is an important aspect of the quality of life in isolated populations, and changes in the communication patterns may have significant repercussions over people's social and psychological health. Our respondents continued to communicate with their relatives and friends by telephone calls (44.5%), through social networks using their smartphones (43.5%) or other electronic devices (laptop/ tablet/desktop) (10.1%) (Figure 4).

Figure 3: How do you evaluate the severity of the quarantine/ isolation-induced stress, from 1(absent) to 10 (extreme)? (Q11)



Inadequate information may negatively impact both mental health and quality of life, by raising the level of stress and fostering cognitive distortions. Most of the respondents collected data about the Covid-19 pandemic from the Internet (official sites) (57.5%), television (31.3%), Internet blogs and unofficial sites (5.3%), online or printed press (3.8%), and other sources (1.1%) (Figure 5). The majority of respondents stated they spent a maximum of one hour daily to find out news about the Covid-19 pandemic (71%), while 25% spent between one and 5 hours each day for the same purpose.

Regarding the most important concerns during the lockdown/quarantine that may influence the quality of life, our respondents mentioned primarily the concern about the health of those close to them (43.7%), then the concern related to their health (15.8%), followed by worries triggered by the family's financial security (12%), her or his financial future (7%), and his or her professional perspectives (4%). Other concerns reported by respondents were: the difficulties in running their own business, the current socio-political situation, the obligation to be vaccinated if a vaccine is to be discovered, the inability to continue daily routines they had before the pandemic, the restrictions applied to the freedom of movement, the restrictions applied to the access to religious services within the church, limitations to the professional/school activities, the collective mental health, the global economic crisis, the loneliness, the possible shortcomings in food production. About 13% of respondents did not mention any significant current concerns related to the Covid-19 pandemic that may relate to their quality of life.

Figure 4: How did you continue to communicate with your family, friends, neighbors during the isolation/quarantine? (Q13)

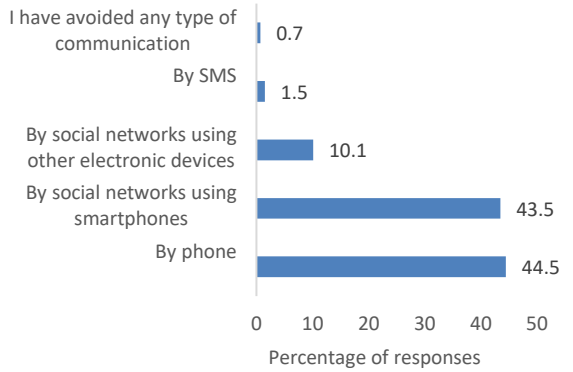
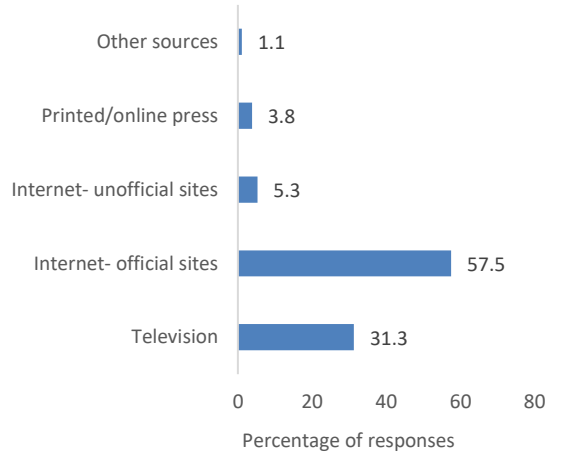


Figure 5: Where did you get your information about the CoViD-19 pandemic? (Q14)

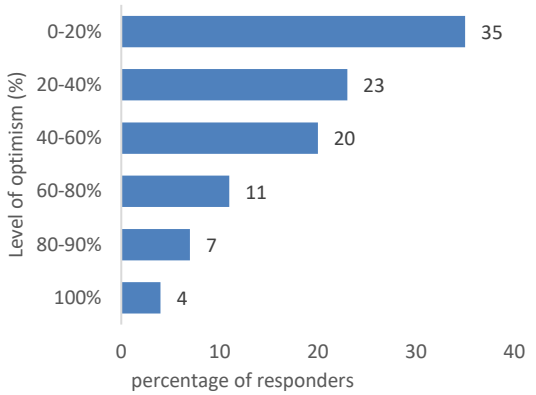


Financial aspects of quarantine and isolation have a significant potential to trigger changes in one's quality of life. During the period of self-isolation, 38.2% of people stated that they could work from home, without financial differences (20.8%), or with financial losses (17.4%), while

11% were in technical unemployment. It should be mentioned that 15.1% of the people stated they cannot work from home or receive financial support for this period, and a significant percentage of the respondents cannot work from home at all, because they have professions that cannot be done from distance.

Regarding the degree of optimism, respondents admitted a low (43%) or very low (35%) level, with only 20% recognizing a moderate level and 22% a high level of confidence in the possibility of solving the epidemiological crisis in the short-term (2-4 weeks) (Figure 6).

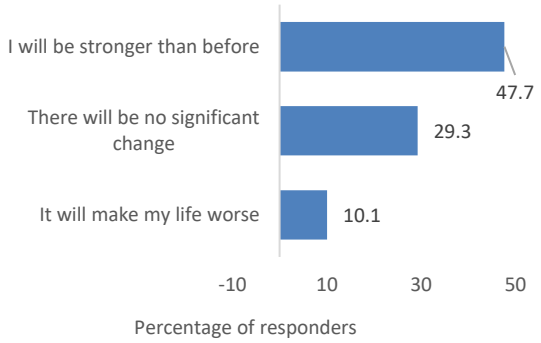
Figure 6: How do you rate your level of optimism regarding the possibility of solving the problem of the pandemic in a short time? (Q23)



The way people look at their future is important for evaluating the quality of life in any population. Asked how they estimate their life will change as a consequence of the Covid-19-related (self)isolation/quarantine, the survey respondents said they expect to emerge stronger from this experience (47.7%), or that they will not suffer any medium or long-term negative impact of isolation (29.3%) (Figure 7). Only 10.1% of respondents consider that this experience will have a significant negative and permanent impact on their lives.

Regarding the appearance of psychopathological symptoms with functional impact during isolation, respondents mentioned insomnia (11.5%), nervousness/irritability (9%), unmotivated physical/mental fatigue (6.4%), panic (6%), catastrophic expectations related to pandemic (6%), increased appetite (4.5%), depressed mood (4%), decreased appetite (2%), crying spells (2.5%), ideas of uselessness or lack of self-worth (2.5%), concentration problems (2.2%), anhedonia (2.2%), feelings that life is meaningless (1.7%), drowsiness (1.7%), numbness in the hands or feet (1.6%), palpitations (1.6%), de-realization (1.3%), physical pain without an organic cause (1%), and many respondents admitted the presence of at least two of the listed symptoms. About 30% of respondents stated they did not experience any symptoms from the list presented.

Figure 7: What do you think that will change in your life as a result of isolation/quarantine? (Q29)



The communication with health services is another variable that may be correlated with the quality of life, especially during a world-scale epidemiological crisis. It should be noted that only 3.8% of the respondents sought the help of a mental health specialist during lockdown and quarantine. Of the people who went to the psychiatrist, 1% were already in treatment and adjustments of the current therapy were recommended, 1.2% were prescribed treatment for the first time, 0.5% did not receive any psychotropic treatment, being scheduled for a reassessment after the period of self-isolation/quarantine, 2.7% received a recommendation for online counseling/psychotherapy, and 40.1% did not receive a recommendation for any drug treatment or psychotherapy.

Of the patients who had medication recommended for any condition before self-isolation/quarantine, most of them stated that they were able to obtain the prescribed medications, but some people reported difficulties in procuring their usual medications (for hypothyroidism and diabetes, for example). Many respondents mentioned that they have appreciated the newly-launched system of electronic prescriptions sent by the physicians, without having them to travel to the doctors' office.

In terms of harmful behaviors with onset during the Covid-19-related self-isolation/quarantine, 23% of respondents ate more than before, 16% increased cigarette daily consumption, 9.6% resorted to excessive online shopping, which they later regretted, 5% took by themselves medication for sleep, and 4% increased alcohol use compared to their reference level. Other significant changes were abusive use of the Internet and changing in the sleep-wake rhythm, by advancing bedtime and waking up later

than usual, and increased consumption of sweets. Changes in the physician-prescribed diet have also been reported, because people with dietary restrictions found harder on the market certain foods during this period. However, some respondents mentioned the appearance of certain favorable changes, stating that "I appreciate life more now", "I appreciate much more everything beautiful around me", "I treasure my health more", "I appreciate the freedom more", "I have managed to quit smoking", "I realized that I can adapt to more difficult situations without repercussions on my psychological status".

COPING STRATEGIES DURING COVID-19- RELATED QUARANTINE AND ISOLATION

Interaction with other family members in self-isolation was the preferred method of coping with the situation (17%), followed in descending order by use of the Internet - social networks (13.4%), television – entertainment programs (12%), reading (11%), gardening (9%), Internet – entertainment (6%), Internet – online games (3.8%), television – news editions (3.6%), smoking (3.5%), sportive activities at home (3%), religious activities performed at home (3%), crosswords/sudoku/puzzles (2.6%), DIY (2.3%), Internet – educational programs (2%), board games with other self-isolated family members (1.6 %), Internet – shopping other than those of vital necessity (1%), television – cultural programs (1%) and alcohol consumption (0.75%).

When asked what they would advise other people placed in isolation to do while they are inside their homes, respondents said the best coping methods would be: structuring the daily program, in which to include activities as diverse as possible (e.g., "to arrange for the next day at least two activities that he/she likes"); to exploit the available time they have for doing things they have not been able to do so far because of the procrastination; to be patient, to keep calm and to follow the rules, to think about the fact that it is only a period that will pass; to do gymnastics or any kind of sport, in the house or outside; to adopt a pet; to get involved in religious activities that can be carried out at home; to avoid continuous contact with news programs (e.g., "to filter the information they receive very well", "to be informed about the current situation from the TV or other sources only if necessary"; "to watch the news only once daily"); to listen to cultural programs on the radio; to continue their professional activity at home, if possible; to discover new hobbies ("to discover something they will enjoy", "to do something creative"); gardening (e.g., "those who can move to a house with a garden should do it", "even if you are living in a flat you can take care of flowers, because flowerpots can be placed on the balcony"); to take advantage of free time and spend it with loved ones, to communicate with the family by phone/social networks (e.g., "those who have children should enjoy these moments, going to work usually robs us a lot of time that we should spent with our children", "to communicate daily with the children and with the family by phone/Internet"); to reflect on the self (e.g., "to explore the self as much as possible using all the means at their disposal"), meditation, yoga; to clean the house in an organized way; to watch new movies with his/her family, but also to watch old movies, which he/she likes; crosswords, sudoku; Internet- games, social networks, entertainment (e.g., shows broadcasted online), personal development trainings, parenting, etc.; sewing, tapestry, embroidery, crocheting, knitting, tailoring; DIY; cooking (e.g., "to try to prepare new things in the kitchen, to explore..."); drawing, painting; music (e.g., "to listen to music daily, especially relaxation music"); reading (e.g., "to read some of the books we have long wanted to read"); development of skills that could be useful after the end of the pandemic- language courses, acquisition of professional qualifications or overspecializations, computer skills trainings (e.g., "to look for information related to a specialization in a new field"); to study what they wanted to study but failed due to lack of time; board games with other family members in the house; to keep a diary of this period; to avoid food excesses and to focus on a healthy diet; to build plans for the future (e.g., "to plan their activities in the post-isolation period, to take into account what they want to do, who they want to see").

To the question "What do you not recommend to other self-isolated people to do?" the most common responses were: to avoid prolonged lying in bed during the day; to avoid binge-watching TV (e.g., "do not watch news programs for more than an hour daily") and to avoid data collected from unauthorized sources; avoid alcohol use and excessive smoking; do not do excessive shopping; do not isolate themselves emotionally; do not fall prey to monotony; do not consume excessively sweets and rich-calories foods in general; do not take medication without a doctor's recommendation; to avoid leaving the house if it is not necessary; to avoid excessive discussions on social networks about coronavirus; to avoid self-victimization and panic; do not abuse the Internet; to avoid online gambling; to avoid alcoholic drinks and to not increase the number of daily cigarettes.

Communication with people living in the same home was not significantly affected, according to the majority of respondents placed in isolation/quarantine. They stated that they enjoyed the time spent together, this time is an opportunity for mutual discovery or closeness. Such

responses were, for example, “This isolation strengthened the connection between us, divergences faded, we mobilized to face a general threat together”, “We found, after a long time, the pleasure of time spent together; we have different stages of life but we have re-discovered common interests/opinions”, “I think this period has approached us”, “We had enough time to discuss everything we had not discussed so far”,“ Self-isolation facilitated communication between me and other family members, we had more time to spend together, a time we would not have allocated to ourselves if it were not for these extreme circumstances", "If it were not for the crisis, everyone would have had other things to do and we would have inadvertently avoided this approach".

There were however signals about monotony or increased nervousness - "Stress level is quite high, not everyone understands self-isolation measures", "This period increased our stress and made us feel trapped", "We became more irritable towards each other, because we spent too much time together”, "Because of the stress and anxiety there were more and more discussions and sometimes quarrels". There have also been situations when ignoring others has been reported as a method of coping with interpersonal stress.

The following reactions were reported during the communication with people (family, friends) outside the respondents' home: frustration due to lack of intimacy (“Emotionally, lack of contact with loved ones generates frustration”, “It is difficult not to have meetings, we can't enjoy the outdoors together", "I'm sorry I can't physically express my love for them", "I’m afraid we will become estranged"), worries about changing one's self and one’s relationships ("We became more lonely, more suspicious, more indifferent to each other”), concerns about the impact of one’s professional status over the family members (“I have to go to the hospital every day, being a doctor, and the family is worried about my health”), concerns about lower income that can affect family members, lack of food supplies on the markets, lack of enough anti-Covid-19 protective materials), reassessment of previous social experiences (“I miss my work colleagues, even those I did not value enough”). Some people tried to focus on the positive aspects ("We have more time to discuss, to talk about anything... For the first time I talked to my child for an hour without arguing", "It's hard not to see each other, but I know that's how we protect ourselves and others”,“ We communicate better”, “I think now I have time to talk to more people than before”).

Religion is seen as an important coping method by 47% of those in isolation or quarantine, even if participation in religious rituals was not allowed within the churches during the emergency state.

For people living with children in self-isolation/quarantine, the most commonly used methods of organizing children's time were encouraging online communication with classmates (7%), continuing school training (6.2%), board games (3.9%), encouraging participation in physical exercises (3.1%), unrestricted use of the Internet (“let them stay on the Internet as long as they want”) (2.8%), watching TV programs (“we do not limit access to watching TV anymore to a certain amount of time”) (0.8%).

Regarding the communication with children about the Covid-19 pandemic data, 32% of parents responded that they tell them what is happening and maintain constant communication with them about the pandemic, while 16% prefer to distract their attention from what happens through the use of games or other means. Almost 7% of the parents prefer to tell them that nothing bad is happening and that it is just a form of holiday, and only 2% said they forbid their children to come into contact with information sources about pandemic or do not answer children’s questions about the pandemic openly.

DYNAMIC INTERPRETATION OF THE QUALITY OF LIFE AND COPING STRATEGIES DURING THE QUARANTINE OR ISOLATION

Between March 21 and April 7, 2020, 103 respondents completed the online survey, and between April 8 and 20, 2020, the number of respondents reached 838. The interpretation of the answers must take into account the significant change in the demographic distribution of the participants, respectively an increase of the percentage of elderly people from 2% to 17.5%, with the corresponding decrease in the number of adults aged between 18 and 64 (95% vs. 81.5%), while the number of adolescents remained relatively constant (1% vs. 3%). Also, the marital status of the respondents was different, with an increase of the proportion of married (40% vs. 54.7%) and divorced people (3% vs. 13%), in parallel with a decrease in the number of unmarried people (55% vs. 23.7%). No major differences were observed in the geographical distribution of respondents (urban vs. rural, people located in Romania vs. Romanian citizens located in other countries). From the point of view of the educational background, a higher number of people with high school answered the questionnaire in the second stage of the survey, so that their proportion increased to 19.2% vs. to 9% in the first stage. Respondents who were not in those categories involving a professional risk of contracting Covid-19 increased from 56.5% to 70.7%, a difference that may be correlated with the

change in the age of the respondents.

The people who completed the questionnaire were mostly self-isolating for prophylactic purposes both in the first half of the month and at the end of the one month, but the duration of the isolation regimen increased, as expected - the proportion of those who stayed in the house for more than 14 days was at the end 80% vs.11.7% at the half of the evaluation duration. The proportion of those who cared for children, adolescents, or the elderly was not significantly different in the two situations, as was the proportion of those who had mental or organic disorders in treatment.

The level of stress induced by isolation/quarantine did not change much over time, the proportion of those who consider this parameter to be moderate was 33% at two weeks and 35.6% after 4 weeks, those who considered it not significant were more numerous (6% vs. 10.6%), and the percentage of those who considered it unbearable also increased slightly (5% vs. 7%).

Interaction with other family members in self-isolation was the preferred method of dealing with the situation after two weeks and remained so at week 4 (23.5% and 17%, respectively).

Several coping strategies have increased their frequency of use – for example, use of the social networks (12% vs. 13.4%), watching entertainment programs, music, movies, television documentaries (10% vs. 13%), interest in gardening (4% vs. 9%), DIY (1% vs. 2.3%), smoking (3% vs. 3.5%), home sports/gymnastics (less than 1% vs. 3%), crosswords/sudoku (1% vs. 2.6%) and religious activities at home (less than 1% vs. 3%).

From the category of methods that have remained at the same level throughout the 4 weeks of the survey was the interest in reading (10% vs. 11%), sportive activities at home (8%), TV news (3% vs. 3.6%), Internet- educational programs (2%) and Internet- online shopping (1%). There was a slight decrease in the interest in Internet-entertainment and online games (13.5% vs. 9.8%), inboard games with other family members (3% vs. 1.6%), but also in the interest for alcoholic drinks (2% vs. 0.75%).

Respondents continued to communicate with those close to them by phone, through social networks on mobile phones or other electronic devices (laptop/tablet/desktop) in similar proportions in the two stages. Most respondents informed themselves about the Covid-19 pandemic from the Internet (official sites) (69.6% vs. 57.5%), but also unofficial sites or blogs (less than 1% vs. 5.3%). More respondents preferred to inform themselves from television at week 4 (22.5% vs. 31.3%), while the press remained at a constant level of interest (5% vs. 3.8%). Most of the respondents stated they have spent a maximum of one hour daily to find out data about the Covid-19 pandemic in a slightly increasing percentage (64.7% vs. 71%), while the number of those who spend between one and 5 hours each day for the same purpose decreased slightly (30.6% vs. 25%).

Asked what they would advise other people situated in isolation to do while they are inside their homes, the respondents offered the same categories of answers, namely those focused on the accuracy of information (using only official sources), spending more time with hobby activities, structuring of the daily time (including a list with various daily activities), caring for other family members with whom they live, communicating with friends/relatives outside the home by electronic devices, building plans for the future, developing new skills, adhering to the principles of healthy eating, practicing activities they have postponed due to lack of time, rediscovering themselves through specific activities (online personal development workshops, meditation, yoga). New recommendations have emerged regarding religious activities practiced at home, in the context of the Easter holidays.

To the question "What do you not recommend to other people in self-isolation to do?" the most common responses were similar in the two-time intervals assessed, namely avoiding long-term exposure to news programs, avoiding excessive eating, avoiding lack of activities during the day, avoiding leaving the house if it was not necessary, avoiding excessive discussions on social networks about coronavirus, avoid self-victimization, panic, and monotony, avoid alcohol use and excessive smoking. There were also recommendations to avoid prolonged bedtime during the day, excessive shopping, abuse of sweets, and high saturated fat foods, online gambling, and abuse of the Internet.

Communication with people situated in the same house was not significantly affected, according to the majority of respondents in self-isolation after two and 4 weeks, with a predominance of people who showed that they enjoyed the time spent together, this interval being considered an opportunity for mutual discovery or closeness.

During the communication with other people (family, friends) outside the respondents' homes, the following reactions were reported: frustration due to lack of privacy, concerns about the impact of professional status on the family's general wellbeing, concerns about the lack of finance that may affect family members, reframing of the previous social experiences, but also equilibrium or even focusing on the positive aspects of the situation. Besides, concerns were raised about changing one's person and one's

relationships, which could be long-lasting, according to the respondents.

Regarding the most important concerns of this period, respondents mentioned especially the anxiety related to the potential health issues of the loved ones (67% vs. 43.1%, decreasing trend), then those related to their health (11.6% vs. 15.8%, increasing trend), followed by those fears triggered by financial uncertainty, professional or school prospects and the global political context.

During the period of self-isolation, 54% of people stated that they can work from home without financial differences (35% vs. 38.2%, slight increase), or with financial losses (14.5% vs. 17.4%, slight increase), while technical unemployment affected an increasing proportion of people (4% vs. 11%). It should be noted that 12% (after two weeks) and 15.1% (after 4 weeks) stated that they could not work from home or receive financial support for this period, and a significant percentage of respondents were not able to work from home at all due to the specifics of their jobs.

Regarding the level of optimism, respondents admitted a reduced level after 4 weeks comparative to the 2-week level (26% vs. 43%), only 20% admitted a moderate level, and 9% vs. 22% (significant increase) a high level of confidence in the short-term resolution (2-4 weeks) of the epidemiological crisis.

Religion was seen as an important resource for a growing proportion of people (33% vs. 47%) in self-isolation/ quarantine after 4 weeks comparative to the 2-week level.

For people living with children in self-isolation/quarantine, the most commonly used methods of organizing children's time were online communication with colleagues/teachers, board games, continuing school training program, then using the Internet, physical exercises, and watching TV. Regarding communication with children about Covid-19 pandemic data, a similar percentage of parents responded that they tell them what is happening and maintain constant communication with them about the pandemic (35% vs. 32%), while 17% vs. 16% prefer to distract them from what is happening outside by using games or other means.

Asked how they estimate they will be affected by self-isolation/quarantine, respondents said they expect to emerge stronger from this experience (55% vs. 47.7%, decreasing trend), or that they will not suffer any medium- or long-term negative impact of isolation (31% vs. 29.3%, relatively similar percentage).

Regarding the onset of psychopathological symptoms with functional impact during isolation, respondents mentioned insomnia (10% and 11%, respectively), followed by nervousness/irritability (10% vs. 9%) and anxiety/panic (5% vs. 6%, increasing trend), catastrophic expectations related to the pandemic (6%, increasing trend), unmotivated physical or mental fatigue (7% vs. 6.4%). Other reported symptoms were depressive mood (8% vs. 4%, decreasing trend), increased appetite (7% vs. 4.5%, decreasing trend), concentration problems (7% vs. 2.2%, decreasing trend), and several people have reported clusters of symptoms.

However, only 4.8% of the respondents sought the help of a mental health specialist during isolation/quarantine after two weeks and 3.8% after 4 weeks. Of the patients who had medication recommended for any condition before isolation/quarantine, most of them said they were able to purchase their prescribed medications.

During isolation/quarantine, harmful behaviors such as excessive online shopping decreased in time (13% vs. 9.6%), alcohol consumption compared to the previous level also decreased (7% vs. 4%), excessive smoking was increasingly reported (13.5% vs. 16%), and self-administered sedatives significantly increased (1% vs. 5%). Other important changes were the more intense use of the Internet and change in the sleep-wake rhythm by advancing the bedtime and waking up later than usual, and also an increase in the sweets consumption. After 4 weeks, changes in the structure of the diet were reported, people who had a diet recommended by the doctor stating that they can no longer buy those specific foods. After 4 weeks, some favorable changes were mentioned, such as raising awareness of the importance of life, health, and loved ones.

CONCLUSIONS AND RECOMMENDATIONS

The dynamic self-assessment of the stress level induced by isolation or quarantine in the context of the Covid-19 pandemic did not show significant changes between the analysis performed after two weeks and the one performed after 4 weeks. This stress level was very different from one respondent to another, being quite evenly distributed from absent to extreme, most often being chosen the average values. It should be noted that almost 50% of the respondents were caregivers for minors, elderly people, patients with organic or mental illnesses so that they were confronted with multiple stressors.

The most commonly reported coping methods used to deal with the stress of self-isolation were (1) direct communication with other family members with whom the respondents live, or by phone/Internet with loved ones who live outside their current place of isolation; (2) online entertainment (network games, movies, documentaries) or TV (movies, entertainment programs, sports); (3) reading,

(4) sports activities; (5) other – gardening, board games with other family members in isolation, TV news programs and educational programs (either TV or online); (6) keeping a diary, or planning daily activities for efficient time management; (7) personal development (online courses, meditation, yoga); (8) development of any professional skills that may offer an advantage on the labor market in the post-pandemic period (online language courses, computer programming workshops, overspecializations in one's field of activity, etc.).

It should be noted that the frequency of excessive smoking has increased after more than two weeks of isolation or quarantine, and this can be a dysfunctional coping method to deal with the isolation stress. Adequate measures of psychoeducation could be useful at the populational level for the prevention of excessive smoking, as well as dissemination of recommendations for adequate time management so that smoking can be replaced by relaxation methods free of harmful effects. Other dysfunctional coping methods were reported during self-isolation, namely, excessive online shopping, which was later regretted by the people concerned; compulsive eating, especially of sweets or other high-calorie foods; self-medication for sleep disorders; Internet abuse. In this regard, it should be noted that lockdown is a period during which behavioral addictions can develop unhindered if they are not actively fighting against - for example, the diet should be balanced to avoid the abusive use of sweets, between meals high-calorie foods are prohibited, prolonged sitting in front of the computer or TV should be considered harmful by people in isolation, and it is recommended to introduce active relaxation breaks between sessions of Internet or TV use; abusive online shopping or online gambling must be perceived as dangers and campaigned against; sleep medication should be taken only on prescriptions from a physician, strictly for the recommended duration.

The use of social networks and phone callings were used by respondents in relatively equal proportions to keep in touch with those close to them. The Internet was preferred as a source of information over television, but this is most likely the result of how respondents were selected (online platforms); the time spent daily informing about the Covid-19 pandemic has been reduced (over 70% estimated this time to be one hour), which indicates a realistic approach and avoidance of intoxication with data about the pandemic.

The main recommendations offered by the respondents for other people in isolation or quarantine were: (1) sports and relaxation activities (Pilates, yoga, gymnastics); (2) hobby activities (cooking, gardening, tapestry, drawing, dancing); (3) communication with loved ones; (4) caring for loved ones; (5) information only from official sources; (6) reframing of the current situation („you may consider that it is a holiday, a period of self-evaluation, of rediscovering your partner, of making plans for the future"); (7) developing new professional skills that may be useful in the future; (8) religious activities performed at home.

Contraindications that respondents considered important during self-isolation: (1) prolonged exposure to news programs; (2) self-blame and panic (it must be taken into account that the situation is limited in time anyway); (3) avoid excessive eating, smoking, and alcohol abuse; (4) avoid monotony by diversifying the daily program; (5) avoid unnecessarily leaving of one's own house; (6) avoiding lying in bed during the entire day; (7) avoid excessive consumption of sweets, online gambling and excessive use of the Internet.

Most of the people stated that there were no changes in communication with their loved ones who lived in the same house. However, from the category of those who felt such changes, most of them showed that they managed to enjoy the time spent together, using this period constructively and finding common interests and activities with their partner/ children/other relatives in the house. The appearance of nervousness installed on the background of isolation-induced monotony was also reported, which leads to the need of implementing coping strategies based on the detection of common interests, on the practice of relaxation exercises, etc; ignoring one's partner or spouse was also signaled as a dysfunctional coping strategy, and in this case, we consider as optimal strategies the resignification of the situation, finding hobbies that several people from the same house may share, establish common plans for the future.

Communication with those outside the home was marked by (1) the feeling of lack of privacy which is commonly associated with physical, direct communication; (2) concerns about how the economic situation (technical unemployment, working from home with declining income, or even lack financial support) and social situation (separation from the group of colleagues, neighbors, friends) will affect oneself and his/her family; (3) emotional balance (acceptance of the current situation and associated changes of the communication paradigm); (4) capitalizing on current resources (using the time constructively, communication targeting the reconnection with old friends and relatives with whom they have not spoken for a long time, etc).

The respondents' main concerns were (1) worries related to the health of people close to them and their health; (2) financial security; (3) professional or academic future. Therefore, the officials should communicate more with the

population about these issues and offer them adequate information about the pandemic-imposed crisis changes in the economy and academic activities.

The level of optimism regarding the resolution of the situation within a maximum of one month was reduced to 43% of the respondents, which shows a high level of awareness of the importance of the epidemiological situation.

Parents who live with their children at home have found as a means of organizing the children's time using board games within the home, the continuation of the school training program from home, then using the Internet for entertainment, online communication with colleagues and teachers, physical exercises and watching TV. The communication with the children regarding the Covid-19 pandemic data was good, in the sense that it was based on respecting the facts, with the concepts being formulated inappropriate terms.

The respondents did not expect self-isolation to change their long-term lifestyle, or even had favorable expectations, respectively to come out stronger from this experience, which shows a high level of confidence in their resources to cope and an effort to integrate this experience into the continuum of their life.

Psychopathological manifestations have been reported during self-isolation, in particular insomnia, nervousness/ irritability, anxiety/panic, unmotivated fatigue, depressed mood, appetite changes, concentration problems, and many people have shown symptomatic clusters, not just isolated symptoms. These elements had a recent onset and they can be largely attributed to the stress-induced by isolation or quarantine, given that only 3% of the survey respondents admitted to pre-existing mental disorders.

There was reported a reduced addressability to psychological or psychiatric services, while the use of one's methods of coping with symptoms increased in time (self-medication for sleep, coffee for drowsiness, alcohol for anxiety). Therefore, less than 4% of the respondents used the help of a mental health specialist during their isolation/ quarantine. These phenomena show not only that there is a risk of developing mental disorders in this period, especially anxiety and depressive disorders, which are to be expected in this period of isolation/quarantine, but also the risk that these disorders worsen rapidly in the absence of mental health-focused interventions. In this context, the possibility of accessing online medical platforms and psychological helplines dedicated to people going through difficult times should be disseminated into the population as an important means to prevent the worsening of stress-related disorders. Pharmacological treatment and psychotherapy should be used for anxiety, stress-related, and depressive-spectrum disorders, whenever needed [12]. Vulnerable populations to the isolation or quarantine-associated stress, represented by elderly patients, people with a psychiatric history or physical impairments should benefit from special attention from the mental health specialists, and special programs designed for the awareness of anxiety and depressive disorders should reach them through the media, general practitioners, or any official vector of information possible [13]. Depression is an important factor for lowering the quality of life and harms life expectancy so that it should be treated actively whenever detected [14, 15].

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