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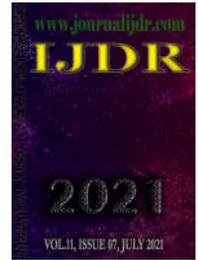
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EMOTION REGULATION IN TIMES OF PANDEMIC: AN EXPLORATORY STUDY WITH A GROUP OF BRAZILIANS

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ABSTRACT

The strategies necessary to cope with the Covid19 pandemic required the adoption of social distancing measures that restricted the free movement of people and transformed social interactions, which, in significant part, became mediated by technologies. Added to this change with a strong psychosocial impact, the insecurity arising from the risk of contamination and inaccurate or incorrect information about the virus, the economic vulnerability, and the suffering caused by the illness or death of family members, produced a significant increase in psychological suffering and emotional reactions that triggered depression and anxiety attacks. Understanding emotion as a coordinated and flexible response system that can be regulated and a process that motivates and organizes cognition and action, it was sought to identify which emotional regulation strategies were used by Brazilians during the pandemic. A total of 463 Brazilians participated, answering an electronic form with 29 closed Likert-type items and an open-ended one: "Could you name the strategy you have used the most to cope with social isolation during the pandemic?". The sample was made up of 64.7% women, the majority with higher education or post-graduation, with diversified professional situations, and 83% living in Rio de Janeiro, despite other states responders. The results demonstrated that among the strategies most used by the participants are the distraction with TV and series. The most effective strategies for positive emotion regulation were talking to friends, exercise, relaxation, and meditation. However, there was evident in people who perceived themselves as depressed and frustrated a decrease in studies and more regular use of social networks during the pandemic.

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INTRODUCTION

In the mid-1960s, the world population had contact with reactions arising from a group of viruses that caused, in most of those infected, flu and common colds. At the end of 2002, the SARS-Cov (Severe Acute Respiratory Syndrome - or SARS) strain was identified in China, generated by a Coronavirus that, although it had similar characteristics of respiratory diseases, showed, in a greater degree, the

strength of a virus responsible for the death of almost a thousand people. Such a mutation prejudged the results of the new virus that was yet to come: the SARS-CoV-2 Coronavirus. In late 2019, it was first identified in humans in an inland city in China and quickly spread worldwide, claiming millions of victims (Tesini, 2020). Scientific projections assure that the new variant of Coronavirus causes a strong impact on the health of those infected, staying from two to four weeks hosted in their organism, and it is soon after eliminated from it. It is also known that about 80% of the confirmed

cases presented only mild symptoms or even, in some cases, were asymptomatic; about 15% presented infectious conditions of greater severity, requiring, in many cases, oxygen, and 5% of the sick presented a very serious condition, requiring respiratory aid, leading some patients to intubation (World Health Organization, 2019). It is essential to emphasize that one of the greatest concerns since the beginning of the pandemic period was to contain the spread of the virus. In a very short time period, the disease spread rapidly through the countries of Asia, reaching Europe and the rest of the world, which forced the World Health Organization (WHO) to confirm the pandemic worldwide, an event that was confirmed with a projection of deaths, causing consternation around the world (World Health Organization, 2019). In the face of the unknown, a more prudent posture was pleaded on a global level, which proposed the adoption of preventive measures that range from social distancing, in some cases reaching the almost total closing of commercial establishments (Lockdown), to the change of the form of social interaction: from classes taught online to even work being transferred to home environments (Work from home); the search for the experience of spirituality (Santana & Zanatta, 2021) and artistic activities were shaped in a new format of (Live streaming's); among others (Santana, et al., 2021a).

Regarding the guidelines recommended for the safety of the population in this pandemic period, social isolation stands out. This highlights the need for readaptation of behaviors, regarding personal and community hygiene, either by using mask in public places, hand sanitizer or alcohol 70% - as well as avoiding touching lips and eye with dirty hands, among others (Hammerschmidt & Santana, 2020). In the wake of the social fractures produced by the pandemic of COVID19, it stands out how much economic differences were uncovered and how the contradictions existing in the contemporary world (Santana, et al., 2021b) were evidenced on a global stage. An unprecedented crisis devastated not only the economy of the less favored countries, but also presented a collective vulnerability. Furthermore, it is known that the analysis of the current reality has serious psychosocial impacts, thus emphasizing not only the financial damage, but the often-psychological suffering added to that of existing realities. In this perspective, the subject of the virus spread was surrounded by many mysteries, since the exact reactions of the disease were unknown, added to the lack of news along with the Fake News, widely disseminated, bringing insecurity and a particular chaos, which contributed to the growing number of people around the world with greater psychological suffering, as well as emotional damage, such as panic syndrome, anxiety crisis, depression, suicidal ideation, among others (Santana, et al., 2021a).

Beyond the pathophysiological and epidemiological issues, it is necessary to discuss the impact of the COVID19 pandemic on the integral health of each human person and to seek to understand that there have been changes in social relationships and that, in some way, the world is more vulnerable. Strictly speaking, society as a whole is hoping that this period of death and distance will soon come to an end; with the arrival of the vaccine, which emerges in this scenario as a source of hope, this desire is reinforced, and the expectation for the return to "normal" or as it has become popularly known: "the new normal" increases. It is notorious that the damage left by this microscopic virus throughout the world is immeasurable. It should be noted that a chapter in the history of every human being (Santana, et al., 2021c) is still in progress; after all, the virus has not yet been contained and most of the globe does not have a hospital infrastructure or enough vaccines for the immunization of everyone. Thus, it is worrisome to conceive that most of the world's population lives at the interface of vulnerability and degrading quality of life. Such events are very close to the reality in Brazil. Thus, it is important to investigate the emotions experienced during the pandemic and the strategies to deal with social isolation in this context. We intend to understand the most commonly used coping strategies and develop skills to use more effective strategies to manage emotions. To this end, this research was conducted based on the following problem: what strategies have Brazilians sought to regulate their emotions during the pandemic?

The Pandemic in Brazil: As the imminent collapse of the coronavirus, the countries started to organize themselves, developing measures that made it possible to reduce the advance of the contagion, which became expressive and chaotic. In this sense, social distancing was prioritized, the emergency creation of new beds and the dissemination of conscious information that everyone should use masks and hand sanitizers, seeking isolation in their homes. The concern was also related to the imminent symptoms, manifesting the need for isolation for a certain period (over 10 days). Countries (Italy, France, United Kingdom, among others) began to establish measures and organize themselves, because the increase in cases was growing significantly. During the months of April and May, Brazil suffered the same problem, seeing the spread and increase of the pandemic of COVID19, as well as the need to use such measures, even with some inexperience and without knowledge of what was happening¹. Thus, with the advance of the Pandemic, Brazil, with its great social inequalities and its population already struggling in areas such as health and education, developed a very ineffective and rudimentary response, which made it impossible to advance in all the states of the federation, causing closures of establishments, isolations, among other aspects that caused a constant concern in the population (Weneck & Carvalho, 2020).

The first case registered in Brazil was a 61-year-old man who had arrived from Italy and lived in São Paulo. Soon after the symptoms appeared, he was sent to the Hospital Israelita Albert Einstein, where he was treated and fortunately escaped death. The first deaths happened between March 12 and 17, at ages above 50. It was noticed that these people had other factors that could help worsen the symptoms, such as diabetes and high blood pressure (Albuquerque & Ribeiro, 2021). With the emergence of the new pandemic of coronavirus, the importance of immunization has increasingly gained prominence in social networks and TV news, being widely reported by the media. Researchers have started a race against time to develop the vaccine and seek to prove the efficacy and safety of various types, developed from existing and new technologies, which represent important innovations for the future treatment of various diseases (Campos, 2021). Considering the significant advance of the pandemic in the Brazilian territory, it was noticed a "low lethality of COVID19 among children and adolescents, the estimates made in this study only consider the population segment composed of individuals aged 20 years or older" (Orellana, et al., 2021, p. 3). In this case, greater assistance was prioritized for the elderly and those who had some chronic disease that could increase the risk of death. It is worth remembering that Rio de Janeiro was the second state to notify death in Brazil, having high rates of deaths, along with the state of São Paulo (Orellana, et al., 2021). The COVID19 pandemic, as well as isolation and social distancing measures, highlighted our already existing contradictions and inequalities.

Brazil's legion of informal workers gained visibility with the 107 million requests for emergency relief (Paiva et al., 2021). As in many parts of the world, the crisis and the financial problems developed by the Pandemic caused economic instability and the loss of many jobs. In Brazil there many people working in an informal way, with tight incomes, and due to the closing of businesses and stores, social isolation, a loss of income and sustainability was found. In this case, a crisis was started causing hardship and despair (Couto, Couto and Cruz, 2020). With the vaccine administration starting, hope for the Brazilian population began to arise, two of them appear to help with the fight against the Coronavirus: The Oxford/AstraZeneca and the CoronaVac vaccines. The first developed by Oxford University and the AstraZeneca laboratory, distributed in Brazil in partnership with the Oswaldo Cruz Foundation, and the second by the Chinese company Sinovac under the coordination of the Butantan Institute (Stevanim, 2020, p. 14). Thus, the vaccines in Brazil, used for emergency use and approved by the National Health Surveillance

¹Brasil. Ministério da Saúde. Coronavírus Brasil. Painel de casos de doença pelo coronavírus 2019 (COVID-19) no Brasil pelo Ministério da Saúde. Published 2020. <https://covid.saude.gov.br/>

Agency, began to be applied to the elderly considered to be the most vulnerable in terms of contamination. In this case, the National Vaccine Operationalization Plan sought, in four phases, to reach the population and help in prevention. Even with the slow and progressive advance of vaccination, with a high population rate, the country managed to advance and administer the doses, but still facing obstacles such as: absence of vaccines for the second dose, negligence of people who did not attend the second application, organization of the states and municipalities, embezzlement of funds, detour of vaccines, carelessness of authorities (leading to a Parliamentary Inquiry Commission - CPI), among other aspects (Simas, Larouze, Diuana & Sánchez, 2021; Granato & Miranda, 2021; Domingues, 2021). The vaccines are destined to states and municipalities for distribution throughout the national territory. The updated data (06/30/2021) inform that 135,060,316 doses have already been distributed, 101,476,804 of which have been administered throughout Brazil. It is mentioned that the government has already destined R\$ 159.1 billion as resources for the state. Regarding the first dose, 74,354,809 Brazilians have already taken the vaccine and 27,121,995 have taken the confirmed second dose. In June 2021, Brazil surpassed the number of 500,000 deaths by COVID 19. Regardless of the strategies that the Brazilian government has employed to combat the pandemic in Brazil, it is clear that "the strengthening of capitalist interests takes precedence over the suppression of the pandemic" (Souza, 2021, p. 46). In this regard, the entire population needs to take measures to contain the advance of the situation, taking care of themselves and others, especially in the use of masks and keeping social distance, as an effective means against contagion; but the fight needs to be developed in all government levels, providing means that help with effective and efficient implementations. Finally, it is understood that even though there are vulnerable people and a complex reality to be faced, the new times need to be rewritten through the threshold of hope. Thus, it is necessary to invest in better education, developing a good life and social quality for people and building a system that provides growth and well-being, in all senses, in the face of these new times that arise in the post-COVID19 (Nóvoa, 2020).

Emotions: "Emotion" has been a central theoretical construct for modern psychology since its adoption as a psychological category in the 19th century, and since then the construct has coexisted with different concepts and definitions about it, with no consensus in the scientific literature (Dixon, 2012). Many researchers in the field of psychology claim that emotion influences thinking, decision-making, acting, social relationships, well-being, and physical, mental health, but there is still no consensus on the term (Izard, 2010). Definitions vary and can be categorized according to their focus on different dimensions: (a) physiological, which emphasizes internal mechanisms and brain physiological systems; (b) cognitive, which addresses the perception and interpretive aspects of physiological, bodily, situational, and mental states; (c) reactive, which emphasizes external stimuli as triggers of affective states; (d) adaptive, which highlights the importance of the organizing and functioning role of emotions; (e) expressive, which emphasizes the observable manifestation of affective states, such as facial and gestural expressive patterns; (f) motivational, which argues that emotions activate motivational processes; (g) multifactorial, which highlights the multidimensionality of the emotional process, articulating physiological, cognitive, affective, and behavioral aspects, among other classifications (Kleinginna & Kleinginna, 1981).

This multidimensional character of the concept leads us to understand emotions as a process that implies physiological activation, behavioral reactions and expressiveness, cognitive evaluation, motivational effects of actions, and adaptive functions to the constantly changing environment. It can be said that emotion is a neurophysiological response of readiness in a situation of strong emotional nature, and it can be activated externally or internally by real or imagined winds (Fernández-Abascal et al., 2010; Gondim, 2015). Emotions are not neutral states, they are responses to specific events considered positive or negative. And they are not long-lasting states that persist for days and weeks, but rather temporary, focused,

short-lived, high-intensity states (Hirschle, Guedes & Batista, 2020). Emotions and affections fulfill essential functions in human life: they contribute to preserve life by preparing the body for action (adaptive function); they help to express moods and guide actions in relation to others by facilitating interactions (social function); and they contribute to the activation of behaviors and actions, enabling the confrontation of everyday situations (motivational function). In addition, they play an important role in historical construction (by communicating significant moments in the history of a people or persons) and in the expression of subjectivity and individuality (Gondim & Siqueira, 2014). Based on empirical research conducted with scientists from various theoretical streams in the field of emotions, Izard (2010) concludes that "emotion" cannot be defined as a single concept. Seeking to capture the essence of the reported definitions, it can be said that emotion consists of neural circuits, response systems, and a process that motivates and organizes cognition and action. There is general agreement and recognition as to the physiological, cognitive, and subjective components of emotion. This research has found numerous categories of definitions just as in Kleinginna & Kleinginna's (1981) study, however, unlike the latter most definitions were of the multifactorial type. It is concluded, then, that this broad understanding of the multifaceted nature of emotion among researchers may constitute a potentially significant shift in the approaches on emotion research and ultimately in the science of emotion (Izard, 2010).

In agreement with this view, Gross and Thompson (2007) consider emotion as a multifaceted phenomenon that involves changes in the domains of subjective experience, behavior, and physiology, which are rarely obligatory, since the flexibility of emotion allows different tendencies of responses that can be modulated in various ways. This characteristic of malleability of emotion is crucial since it enables its regulation. The psychology of emotion has, throughout history, received diverse contributions from philosophical thought, biology, evolutionism, and physiology, which have been fundamental to the current understanding of emotion. Although many philosophers have spoken about emotions, it was the conceptions of Descartes and William James that predominated, with an emphasis on their physiological dimension, until new psychological theories began to emerge. There are numerous theoretical approaches to emotions in psychology, which can be classified according to their focus of analysis and assumptions adopted - behavioral, neurophysiological, cognitive, clinical, developmental, social, among others - that demonstrate the complexity of the phenomenon and the multiple possibilities for analysis that do not cease in these perspectives (Strongman, 1998). Recent research has demonstrated advances in the understanding of emotional processes and the recognition of their multidimensional nature. For the purposes of this research, it was considered emotions as systems of responses (physiological, expressive, behavioral, and feeling states) that arise from the evaluation of a situation as relevant to the individual's goals, and the cognitive dimension being crucial to the process of emotional activation. This response system is coordinated, yet flexible, allowing for regulation (Gross, 2014).

Emotion Regulation Strategies: The construct of emotion regulation (ER) emerges as an independent field of research in the last decades of the 20th century, and since then many studies have been devoted to the topic, and this is evidenced in the huge amount of theoretical and empirical scientific publications, books, conferences, and trainings related to the subject (Gross, 2013; Tamir, 2011). Emotion regulation is defined by Gross (1998) as the process in which individuals influence their own emotions and how they experience and express these emotions. According to this author, emotion regulation is one of the main forms of affecting regulation, among others such as coping, mood regulation, and defenses, which have also been studied by psychology. In the perspective adopted here, we seek to understand emotion regulation as an intrapersonal process, in which the individual regulates his own emotions using strategies in order to achieve goals. The goals can be hedonic, focused on increasing pleasure or reducing displeasure, or instrumental, which refer to the achievement of personal goals or goals demanded by the situation, by

work, or by culture. The results or consequences arising from this process can be diverse, impacting positively or negatively the emotional experience, cognition, and social interaction of the individual (Gross, 2014). In an interpersonal or relational view of ER, which was not the object of our research, there is a concern to understand how the individual regulates the emotions of others (extrinsic affect regulation). The social and relationship context is the main scenario of regulation and involves conflicting goals among people. Empirical evidence suggests the importance of emotion, which fulfills adaptive, social, and motivational functions, among others; however, emotional responses when used inappropriately for certain situations can become dysfunctional and must be regulated. Thus, people regulate their own emotions in order to avoid suffering, maintain physical and psychological health, adjust to norms, social expectations, and improve the quality of interpersonal relationships, being this regulation considered a fundamental process of the social life of individuals (Gondim & Siqueira, 2014; Nelis et al., 2011). And there is no longer any doubt that emotional regulation has important consequences for health and adaptive functioning (Tamir, 2011).

Emotion regulation refers to a series of heterogeneous processes by which emotions are regulated, which can be automatic or controlled, conscious or unconscious, involving changes in emotional dynamics that refer to the intensity and duration of the individual's responses (Gross, 2014). These processes, according to Izard (2010), can be neurophysiological (spontaneous involving hormones), cognitive (conscious control, cognitive reappraisal), social (social approval/disapproval, seeking social support), and behavioral (managing expressions, changing situations). According to Aldao (2013) emotion regulation has been conceptualized as a process by which individuals modify their emotional experiences, expressions, physiology, and the situations that elicit these emotions, to produce appropriate responses to the demands of the environment, and thus, context plays a central role in emotion regulation. The aim of the regulatory process is to reach optimal levels of emotional dynamics so that these emotions can facilitate appropriate responses to constant changes in the environment. Thus, depending on the situation and personal goals, individuals can use strategies to increase, maintain or reduce both negative and positive emotions, characterizing the different forms of emotional regulation, which cannot be considered a priori as good or bad. It can be said then that emotional regulation allows flexibility of emotional response, increasing or reducing its intensity and duration, according to the context and the short- and long-term goals of the individual in any situation. This flexibility in regulation is considered adaptive (Gyurak, Gross & Etkin, 2011). According to Gross (2014), the most commonly used form is down regulation, that is, the reduction of negative emotions (down regulation), especially for dealing with difficult or unpleasant situations. The second most frequent form of regulation is up regulation, whose focus is on maintaining or increasing positive emotions (up regulation), the latter skill being very relevant for human well-being and growth. In fact, the ability to adequately regulate emotions, whether through up- or down-regulation has proven to be of great importance to individuals, according to research in the area.

Findings suggest self-regulation as a crucial factor for well-being (Tamir & Mauss, 2011; Nyklíček, 2011). According to Freire and Tavares (2011) the relationship between emotional regulation skills and well-being has been a frequent object of research in adult populations. Although the effects of ER are increasingly seen as strongly dependent on the context in which they occur, findings suggest there is a relationship between some forms of regulation and physical and psychological well-being. It is noted that some strategies are more likely to promote or reduce well-being in different situations (Nyklíček, 2011). John and Gross (2007) studied cognitive reappraisal and noted that it involves modifying the meaning of the situation by changing its emotional impact, reducing psychological, cognitive, and interpersonal costs. Empirical evidence reveals that the use of this strategy allows the experience of more positive emotions and fewer negative emotions, better emotional and interpersonal functioning, less depressive symptomatology, and greater life

satisfaction, and it is positively associated with well-being. In contrast, the suppression strategy, in which emotional expression is inhibited, was associated with less healthy affective and social patterns, and negatively related to well-being. Adaptive strategies related to positive emotion expression, emotion sharing, and enjoying the present moment were associated with higher levels of positive emotions, fewer negative emotions, and greater long-term well-being. Furthermore, they appear to serve not only to promote positive feelings, but to repair negative feelings (Livingstone & Srivastava, 2012). Several studies have found that when a person cultivates positive emotions or regulates his or her emotions in an adaptive and functional way, this has a positive effect, reducing stress and amplifying well-being (Nelis et al., 2011). It is possible to observe many studies towards this end, especially about the strategies of emotional reappraisal and suppression. Mc Rae et al. (2012), for example, observed a positive relationship between the ability to reappraise, the frequency of reappraisal, and well-being.

In a study by Hirschle, Gondim, Alberton, and Ferreira (2019) adaptive upward regulation strategies (e.g., manifesting behavior, enjoying the present moment) and functional down-regulation strategies (e.g., modifying the situation, positive reassessment of the situation, and expressing emotions) were positive predictors of well-being at work. On the other hand, the results showed that high perceived stress was associated with greater use of maladaptive and dysfunctional regulation strategies. It is emphasized that the ability to deal with negative emotions at work is a key factor for minimizing potentially adverse outcomes, such as anxiety, tension, and emotional exhaustion (Scheibe & Zacher, 2013). It was observed that emotional competences and functional emotional regulation strategies, in addition to being predictors of well-being at work, act as effective moderators, minimizing the negative effects of stressors (Hirschle & Gondim, 2020). Research suggests that positive emotions facilitate stress management and adjustment. It is concluded that the ability to experience positive emotions is a fundamental element for adaptive functioning, bringing benefits to the individual and improving his emotional well-being. On the other hand, the number of negative emotions or feelings may reduce the individual's ability to elaborate adaptive strategies aimed at reducing the impact of the stressor. Thus, the capacity to regulate emotions, especially negative ones, plays an important role in the organism's adaptation to stress, having effects on the individual's well-being.

METHOD AND RESULTS

To find out what strategies Brazilians have sought to regulate emotions in social isolation in the pandemic of COVID19, it was conducted a survey-type quantitative investigation, which was conducted by means of an electronic form, between the months of April and July 2020 under CAAE protocol 31862820.2.0000.5281. The sample was of the non-probabilistic type, obtained by convenience. After obtaining the data, it was performed the Descriptive Analysis (DA) and the Factor Analysis (FA) presented in the results.

Participant Profile

The survey had 463 participants, most of them were between 46 and 60 years old (32.1%, n=147), being 64.7% women (n=312), 32.4% men (n=150) and 2.9% described as non-binary (n=1). Of these, the majority had a graduate degree (34.3%, n=159) or completed college education (25.7%, n=119), and had diversified professional situations (private companies, self-employed, unemployed, public employees, students, retired), with 83% of the interviewed subjects living in the state of Rio de Janeiro.

The Instrument

Initially two instruments were designed, the first with 8 items (S 1-8) for collecting sociodemographic data, and the second a scale with thirty items (V 1-30) referring to the indicators of emotions and strategies for regulating them. The questions of the indicators were

formulated in interrogative form and the answers applied in Likert scale with the alternatives "Much less than before the pandemic"; "Less than before the pandemic"; "Same as before the pandemic"; "More than before the pandemic", and "Much more than before the pandemic". Only the last question allowed for an open response from the participant.

Data Analysis

The first stage included exploratory data analysis performed with Python (Seaborn and Pandas libraries) to obtain the results presented. Besides these, to obtain the Factor Analysis (FA), analyses were performed in the JASP 4.0 program. The data were submitted to adjustment procedures and descriptive analyses (Field, 2009) and, subsequently, the EFA - Exploratory Factor Analysis was conducted. Implementation with rotation using the promax method was adopted. The Parallel Analysis simulated with 95% quality and indicated the retention of the first five factors. To measure the internal consistency of the instrument, Cronbach's alpha was applied, with a result of $\alpha=0.687$, indicating acceptable reliability (α = between 0.6 and 0.7). The descriptive analysis revealed the strategies most used by the participants during the pandemic period, which was organized in descending order in Table 1.

Table 1. Research Items

S1	I am 18 years old or older and I agree to participate in the survey.
S2	Gender
S3	Schooling
S4	Professional Status
S5	At the moment you have fixed monthly income.
S6	Religion
S7	State of where you live in.
S8	How old are you?
V1	I have been reading.
V2	I have been working.
V3	I have been studying.
V4	I have been listening to music.
V5	I have been watching TV.
V6	I have been watching series and/or movies.
V7	I have been playing.
V8	I have been consuming food, drinks, alcoholic beverages, or smoking.
V9	I have been using strategies to be aware of the present moment instead of thinking about the future.
V10	I have used strategies to see the positive side of situations.
V11	I have been using social networks.
V12	I have been talking at home.
V13	I have been talking to co-workers.
V14	I have been talking to family, relatives and friends.
V15	I have been paying attention to myself.
V16	I have been doing physical exercises.
V17	I have been searching for my faith and/or spirituality.
V18	I have been doing relaxation exercises, meditation.
V19	I have been taking care of the house/household.
V20	I have been feeling sad.
V21	I've been feeling bored.
V22	I've been feeling happy
V23	I have been feeling afraid.
V24	I have been feeling disgusted.
V25	I have been feeling worried
V26	I have been feeling anxious.
V27	I have been feeling depressed.
V28	I have been feeling frustrated.
V29	I have been feeling angry.
V30	You could name the strategy that you have used most to deal with social isolation in this time of pandemic.

In it we present the most used strategies with two highlights, the first for the five most used strategies, and the second for the ten most used strategies by the participants throughout the social isolation. Among the top five are: 1st. Taking care of the house; 2nd. Using social networks; 3rd. Positive thoughts; 4th. Watching series/movies and 5th. Family dialogue respectively (V9, V11, V10, V6 and V12).

After the descriptive analysis, it was performed the exploratory factor analysis (EFA) with oblique rotation in the promax method, to clarify which factors have greater relations among themselves. The results indicated the existence of five factors: the first one corresponding to emotions (V20, V21, -V22, V23, V25, V26, V27, V28 and V29); the second one referring to cognitive and social support (V10, V12, V14, V15 and V17); the third factor to behaviors using television, series or movies as a distraction (V5 and V6); the fourth factor to physical activities and meditation (V16 and V18) and the fifth factor concerning to work activities and work relationships (V2 and V13). It was excluded the items with low factor load because they did not form any relevant group: the variable V24 that indicates the responder's perception of disgust; the negative emotion regulation strategies such as consumption of food, alcoholic beverages, or smoking (V8); and, the positive emotion regulation strategies such as use of social networks (V11), reading (V1), studying (V3), listening to music (V4), playing (V7), house/household care (V19), and conscientiousness (V9).

The EFA revealed four groups of significance for categorization of emotion regulation strategies and the items were grouped into five strategy groups as presented in Table 2: To know which emotion regulation strategies had the most positive results, we proceeded to correlate the self-report on the perception of being happy during the pandemic (V22) with the four groups of strategies. It was found a high correlation with Group 3 items (V16 and V18), high correlation with Group 1 items V12 and V14, and V13 in Group 4. There was no considerable correlation for any of the items in Group 2 (V5 and V6). Through this analysis, the data reveal that people who perceive themselves as happy tend to maintain relationships with work partners and family as the main strategy to regulate emotions, followed by physical activity.

When comparing the perception of being cheerful during the pandemic (V22) also with another group of items excluded due to low factor loading, it was found correlation with V3, V4, V7 and -V9. In this analysis, it was found a relationship among being cheerful in the pandemic with investing in studies, listening to music, playing games, and avoiding the consumption of food, alcoholic beverages, or smoking as an emotional regulation strategy. It was possible to verify that people who tend to study and maintain a healthy diet as an emotional regulation strategy perceive themselves as happier during the pandemic.

For confirmatory purposes, the questions about being depressed (V27), being anxious (V26) and/or frustrated (V28) were also tested, with the same variables grouped in table 2 and in the excluded items. In this analysis, the perception of being depressed was inversely correlated with Group 1 strategies (V12, V14), moderately correlated with physical activity (V16) and with insignificant correlation with relaxation or meditation (V18) and moderately correlated with Group 3 work relationships. Similarly to the previous analysis, there was no significant correlation with Group 2 items.

The perception of being emotionally anxious has no significant correlation in any group, only a slight negative correlation with physical activity (V16). The statement about being more frustrated than before the pandemic revealed a slight inverse correlation with the behavior of talking at home (V12), but showed no correlation with groups 2 and 3. When we found a high negative correlation with variable V2, it is possible to infer that working proves to be a source of solution for the feeling of frustration in times of the Covid-19 pandemic.

Finally, the data reveal that participants who perceived themselves as more depressed, anxious, and frustrated also claimed to use social media more regularly during the pandemic (V11), just as the decrease in studying (V3) was evident only for people who perceived themselves as depressed and frustrated.

Table 1. Most used strategies by the participants

Position	Strategies	N	Minimum	Maximum	Mean	Std. Deviation
1°	V19 - I have been taking care of the house/household.	463	1	5	3,98	,921
2°	V 11 - I have been using social networks.	463	1	5	3,90	,987
3°	V 10 - I have used strategies to see the positive side of situations	463	1	5	3,77	,941
4°	V 6 - I have been watching series or/and movies.	463	1	5	3,73	1,145
5°	V 12 - I have been talking at home.	463	1	5	3,68	,998
6°	V 15 - I have been paying attention to myself.	463	1	5	3,64	1,045
7°	V 9 - I have been using strategies to be aware of the present moment instead of thinking about the future.	463	1	5	3,62	,993
8°	V 17 - I have been searching for my faith and/or spirituality.	463	1	5	3,57	1,057
9°	V 14 - I have been talking to family, relatives and friends.	463	1	5	3,49	1,008
10°	V 5 - I have been watching TV.	463	1	5	3,41	1,269
11°	V 1 - I have been reading.	463	1	5	3,39	1,013
12°	V 4 - I have been listening to music.	463	1	5	3,38	1,152
13°	V 3 - I have been studying.	463	1	5	3,08	1,191
14°	V 2 - I have been working.	463	1	5	2,82	1,335
15°	V 7 - I have been playing.	463	1	5	2,82	1,300
16°	V 18 - I have been doing relaxation exercises, meditation.	463	1	5	2,82	1,150
17°	V 13 - I have been talking to co-workers.	463	1	5	2,65	1,115
18°	V 16 - I have been doing physical exercises.	463	1	5	2,41	1,213

Source: Developed by the authors

Table 2. Emotion regulation strategies most used by the sample

StrategicGroup	Behaviour	Variables
Group 1	See the positive side of situations, talk to family and friends, pay more attention to yourself, and search for faith spirituality	V10, V12, V14, V15, V17
Group 2	Entertaining yourself with television, series or movies	V5 and V6
Group 3	Physical activity and meditation	V16 and V18
Group 4	Work activities and work relationships	V2 and V13

Conclusions and Final Remarks: As mentioned earlier, emotions are responses to specific events that are considered positive or negative. These emotions can be self-regulated through a process of experimentation and expression of one's own emotions throughout the pandemic. In this research, we noticed that two of the strategies most used by the group of participants did not show effectiveness regarding positive emotional regulation (V19 and V10) and the other three were negatively related to the perception of happiness, considering the high correlation with the perception of depression and frustration during the pandemic. Of these, the main negative relationship is related to the use of social networks V11 (2nd most used strategy by the participants) followed by the strategy of being entertained with movies and series V5, and V6 (4th most used strategy by the participants). In light of the above, we realize that the use of social networks cannot be considered a good strategy for emotion regulation. Among the strategies that proved to be the most effective for positive emotional regulation were dialogue with family members V12 (5th most used strategy by participants) and friends V14 (9th most used strategy by participants), exercise, relaxation, meditation V13 (16th most used strategy by participants), and physical activity V16 (18th most used strategy by participants). We conclude, therefore, that people who talk less with their family members, do not take care of their diet, abuse social networks, or work less during the pandemic, have shown more frustration and less effectiveness regarding emotional regulation. Finally, it is relevant to mention that this study presents some limitations, among them the greater concentration of its sample in a specific region of Brazil, the profile of participants with higher education and internet access. It is suggested, therefore, that other studies be conducted to expand this sample and analyze the results with the profile of the participants.

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