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Behavioural Changes in Response to Covid-19 Pandemic

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Abstract

This study aims at investigating the factors and identifying coping mechanisms for behavioural changes of Malaysians during this COVID-19 Pandemic. Questionnaires were distributed to 150 respondents using simple random sampling and the data was analysed by using SPSS. The mean ($M=3.42$) indicates that the respondents are going through behavioural changes due to the fear of getting infected by COVID-19. The findings also show that the behavioural changes made them cope with the changes by adapting to the new norm by wearing masks and using hand sanitisers in public places, becoming more protective of their family's well-being, practising social distancing, preferring to stay at home rather than going out to public places and staying positive. In conclusion, the behavioural changes have been triggered by the fear of getting infected by COVID-19 and the pandemic has also affected Malaysians' sleeping patterns and diet. It is suggested that the government, health authorities, and family pay closer attention to those who are affected by this situation through different types of support.

Keywords: Behavioural Changes, COVID-19, Adapting, Diseases, Fear, Lifestyle

Introduction

The COVID-19 pandemic has affected the whole world including Malaysia. The virus has killed 1.8 million people worldwide, creating alarming fears and anxiety which has resulted in respective well-being and displayed a mixture of behavioural changes because COVID-19 (Yunus, et al. , 021). This pandemic has caused a behavioural change impact on the people where they become very afraid of COVID-19. To protect themselves from being infected with the COVID-19 virus, most Malaysians must comply with the government-issued SOPs to reduce the daily cases of COVID-19. Yunus, et al (2021) claims that in adapting to the new norm after the outbreak, major behavioural changes can be seen at the first phase of MCO where people tend to get scared easily on hearing news about COVID-10 while, some become panic and more protective of over their beloved ones. Shaukat et al (2021) reported that protective behaviour is associated with the Fear of COVID-19. Similarly, (Rossinot et al., 2020) study on the psychological impact of quarantine during COVID-19 found that the quarantine has resulted in deleterious mental health outcomes, including fear of COVID-19 and anxiety

among those affected. Besides, restricted social communication and movements, as well as physical activities, have a significant relation to mental health (e.g., fear and anxiety) and could result in the acceptance of negative lifestyle habits, such as sleep issues, poor nutrition, and less physical activities. Besides, limitations of social interactions and physical activity practices, both related to mental health (e.g., fear and anxiety) could have consequences on the adoption of negative lifestyle habits, such as sleep issues, poor nutrition, and poor physical activity.

Therefore, this study aims to ascertain the behavioural changes associated with the COVID-19 outbreak in Malaysia. Another way to examine the factors that lead to behavioural change and their impact on Malaysians and their lifestyles. The study too hopes to find out the thoughts of Malaysians on behavioural changes during the COVID-19 pandemic.

Problem Statement

The behavioural changes amongst Malaysians as a response to COVID-19 are controlled and impacted by the circle of an individual's network companion. The changes are also moulded by the aims of an individual this is to deflect illness and, anxiousness or to live by principal life values. Some of the changes are helpful and some are devastating. The behavioural changes faced by those who have been affected by the COVID-19 pandemic are a serious concern because it seems to impact people's life well-being.

Knell, et al (2020) claimed that one of the factors that caused behavioural changes was decreasing engagement in a positive lifestyle and boredom. People are not allowed to be outside for physical activities and groceries. Other than that, they suffer worsened sleep quality due to feelings of worry and stress, less motivation, and resource concerns. A study by (American Psychiatric Association, 2020). found that about 62% of Americans experience behavioural changes as they are suffering from symptoms of anxiety, where they feel that the virus has greatly impacted their day-to-day lives. A survey by (Li, 2020) on behavioural distress in the general population of China found that those who are vulnerable to behavioural distress include female young adults who retrieve provoking and disturbing messages from social media while high-risk mortality groups such as elderly citizens, and migrant workers who encounter a financial crisis. However, the study on behavioural changes due to the COVID-19 pandemic has not been done much in Malaysia. Therefore, this study aims to find out the other reasons for the factors that lead to different behavioural changes among Malaysians, how the behavioural changes affect them and what their thoughts about the behavioural changes are.

Methodology

This study adopted a quantitative approach, where a questionnaire adapted from Kassim et al (2020); Wang, et al (2020), was distributed to 150 respondents in Malaysia using Google form. The questionnaire consisted of four parts. Part A is on the demographic section, while Part B consists of seven items pertaining to the factors that lead to behavioural changes. Part C consists of eight items pertaining to how behavioural changes affect the Malaysian's lifestyle. Part D is separated into two sections where the first one consists of four items pertaining to thoughts about behavioural changes, while the second section is a semi-structured question on how to adapt to behavioural changes during the COVID-19 pandemic. All the sections require respondents to indicate their responses answer using a Likert scale

ranging from “strongly disagree” to “strongly agree” except for the demographic and semi-structured sections. The data were analysed using statistical analysis by SPSS software and presented in the form of descriptive statistics.

Framework

In the late 1970s, (Prochaska & Velicer, 1997) developed the Transtheoretical Model (TTM) which is also called the Stages of Change Model examining how smokers were able to give up the smoking habit on their own. The TTM is a model of intentional change which focuses on the decision-making of the individual who changes his or her behaviour increasingly through a cyclical process. It postulates those individuals move through six stages of change: pre-contemplation, contemplation, preparation, action, maintenance, and termination.

This study focuses on the contemplation stage where people are inclined to develop a healthy behaviour in the predetermined future, preparation stage indicates that people are ready to act within the next 30 days while the action stage where people have lately changed their conduct (defined as within the last six months) and intend to keep moving forward with those behavioural changes. This is because although the enforcement of wearing masks, controlled movement order (MCO), and lockdowns are not very popular, making compulsion is the most effective way to bring forth a behavioural change. There is a general conceptualization that COVID-19 poses only a peripheral danger to those who are not in a high-risk group, making attempts to generate behavioural changes by raising fear unlikely to be effective on its own.

Results and Discussion

The findings for the first research question focus on the factors that lead to behavioural changes. Table 1 shows the factors that lead toward behavioural changes in descending order according to the mean value.

An online survey by Wiley Online Library and Garcia (2021) on the infection fears regarding the coronavirus indicated a similar finding that of the current study it found that more than half of the respondents had a strong fear of getting infected with COVID-19. The second highest mean response of 3.19 with a percentage of 89.33% indicated that the respondents were afraid of the lack of hygiene when in public areas. Since the COVID-19 virus is invisible, they had no clue of the virus’s presence in the surroundings.

The third highest mean of 3.05 with 77.33% agreed response is that they felt stressed about what would happen in the future. This finding is in line with (World Health Organization, 2020) report that nearly half of the global manpower is at the hazard of losing their living without any means of earning during the pandemic while many are struggling to feed themselves and their families. Further, a total of 81.33% of the respondents agreed that they are afraid of meeting people during the pandemic because they believe that COVID-19 start infectious and it is spreading rapidly from an individual to families and to communities (Evans & Pawlina, 2021) the more an individual interacts with people, the more he or she increases his or her odds of acquiring COVID-19.

Next, with a mean of 2.95, 76.66% of the respondents agreed with the statement that they worried about their financial status since the confinement. This is because many paid staff have encountered pay reductions and perks while employers are relying on the assistance

given by the government to reduce further retrenchment of staff (Bernama News, 2021). When it comes to how they feel about watching news and stories about COVID-19 on social media, 72.67% of respondents agreed that they become tense and uneasy watching that news and stories ($M=2.83$). News and stories portrayed that more than 175 million people worldwide have been infected with the virus and almost 3.8 million people have died so far since the outbreak (Worldometer, 2021).

The question with the lowest mean of 2.75 indicated that the respondents found it hard to adapt to the new normal. Only 42.00% of the respondents agreed with the statement, while 33.33% of them disagreed. However, after a year of the COVID-19 pandemic, everyone has slowly adapted to the new normal such as the mandatory wearing of face masks in public and healthcare, economy and well-being of society have improved despite the new coronavirus strains worldwide (World Health Organization, 2020).

In general, the study revealed that the majority of the respondents are afraid of being infected by COVID-19 as it can lead to death. An individual's fearfulness and anxiousness toward COVID-19 could possibly be overpowering and consequently, it increases one's stress level (Guan, 2021). Thus, though there is a high possibility for them to have contracted it or are at high risk, they refuse to undergo a swap test for COVID-19 and continue living in denial. In addition, they also prevent their family members from being tested as they fear unwanted results such as potential death.

Effects of Behavioural Changes

The findings for the effect of behavioural changes Table 2 summarises the protective behaviour among respondents in a way to protect oneself and others from unusual health conditions during the COVID-19 pandemic. The highest mean response ($M=3.59$) shows most of the respondents do wear masks and hand sanitisers when in public indicating that they are aware that wearing masks and hand sanitisers can limit the spread of the virus to other people. They are also protective of their family indicated by the second highest mean score of 3.47.

More than half of the total respondents strongly agreed with practising social distancing in fear of getting infected by others ($M=3.44$). It shows they are aware that COVID-19 spread primarily from person to person. When a contaminated individual cough, sneeze, talk or breathe, it is easily infected others around especially when they breathe in droplets or aerosols that are produced by the infected individuals (Burrows, 2021). Thus, maintaining social distance from all will obviate infecting others around us.

Some of the respondents would not meet anyone else outside and choose to stay at home ($M=3.32$) while a total of 82.0% of respondents agreed that they avoided communicating with other people physically and preferred online communication ($M=3.07$). These two mean scores clearly show that most of the respondents limit their social gatherings and time in crowded places and avoid close contact with other people to protect themselves from the virus.

The study also highlighted that most of the respondents have protected themselves and their families since the outbreak because of the fear of being infected by COVID-19. This is supported by the mean score of the five items which is above 3.00 and the percentage of

those who agreed is the highest for each item. Dawi et al (2021) argued that strong protective behaviour is one of the preventive measures to minimise the transmission of COVID-19. Therefore, the fear of getting infected with COVID-19 among Malaysians has led to protective behaviour that will help to mitigate the spread of the disease.

Malaysians' thoughts on Behavioural Changes during the COVID-19 Pandemic

The results in Table 4 show the thoughts of Malaysians on Malaysians and their lifestyle are divided into two parts. The first part was on protective behaviour during MCO that consists of five statements that were adapted from Health Protective Behaviour in the Covid-19 Pandemic (Wang, 2020), while the second part was about self-evaluation of the change during the MCO which was adapted from (Rossinot et al., 2020).

From the table, having the highest mean response of 3.35), a total of 89.3% of respondents agreed that they preferred their previous lifestyle before the COVID-19 pandemic. However, the second-highest mean response of $M=3.15$ showed that a total of 91.3% of respondents agreed that behaviour changes have given them once in a lifetime experience that they had never faced before the pandemic outbreak. As argued by (Guterres, n.d.), this pandemic rekindled our thoughts in a blunt way about the price we need to pay for poor deficiency in health systems, social protection, and public services. This is also a reminder that we can't simply go back to the lifestyle that we lived before COVID-19 struck us. This shows that COVID-19 has given us some life experiences that we never felt before if we did not learn any lessons from it.

With a mean score of 2.97, 67.3% of the respondents agreed that Malaysians would be more prepared to face the problem in the future. Shah, et al (2020) claims that all Malaysians played their roles as responsible citizens by adhering to the MCO imposed by the government as well as reducing the workload of all front liners in handling the increasing number of COVID-19 cases especially medical personnel. To support and reduce the impact of MCO on the nation, the Malaysian government has provided a huge budget for various sectors. This also indirectly lessens the stress of the pandemic and assists people-based economic growth and promotes quality investments. This shows that COVID-19 has greatly affected Malaysians' life as it propels the people to take initiative in trying to adapt and find solutions to possible future complications caused by the pandemic which the same effects have caused some changes in Malaysians' behaviour.

Table 1

Factors that lead to behavioural changes

Items	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Mean
I am afraid of being infected by COVID-19	3.33%	3.33%	48.00%	45.33%	3.35
I am afraid of the lack of hygiene when I am exposed myself to public	3.33%	7.33%	56.00%	33.33%	3.19
I find it stressful thinking about what will happen in future	2.67%	20.00%	47.33%	30.00%	3.05
I am afraid of meeting people during the COVID-19 pandemic	3.33%	15.33%	63.33%	18.00%	2.96
I am worried about my financial status since the confinement	4.67%	18.67%	53.33%	23.33%	2.95
I become nervous or anxious when watching news and stories about COVID-19 on social media	4.00%	23.33%	58.67%	14.00%	2.83
I find it hard to adapt to the new normal	5.33%	53.33%	42.00%	19.33%	2.75

With a mean of 2.65, 41.3% disagreed that the changes gave them more negative impacts, while the remaining 58.6% agreed otherwise indicating that some Malaysians are adapting well to the situation brought about by the pandemic. Jarrett (2020) believes that we can experience a positive change when open to changes and adaptive. It can further change their conscience which can result in them assuming a more challenging role as well become more optimistic. This suggests that can cope with their unpredictable future.

In conclusion, behavioural changes may have given people different thoughts on how they feel and the ways they adapt to it through the pandemic. It can be observed from this study that although some of them are having a hard time coping with behaviour changes after the outbreak, they try to have a positive way of thinking to avoid the problems from worsening.

Table 2

Protective Behaviour during MCO

No	Items	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Mean
1.	I am wearing a mask and hand sanitiser when I am in public.	1.3%	0.7%	35.3%	62.7%	3.59
2.	I become more protective of my family's safety.	2.0%	0.7%	46.0%	51.3%	3.47
3.	I am practising social distancing for fear of getting infected by others.	2.7%	3.3%	41.3%	52.7%	3.44
4.	I prefer staying at home rather than meeting other people.	3.3%	4.0%	50.0%	42.7%	3.32
5.	I avoid communicating with other people physically and prefer online communication.	2.7%	15.3%	54.0%	28.0%	3.07

Table 3

The self-evaluation of the change of lifestyle during the MCO

Outcomes	N	%
a. physical activity (e. g., exercises, household chores)		
Decreased	76	50.7
Unchanged	32	21.3
Stopped practicing physical activity during confinement	21	14.0
Increased	14	9.3
Started to practice physical activity during confinement	7	4.7
b. sleep quality since the beginning of confinement		
Unchanged	68	45.3
Decreased	44	29.3
Increased	38	25.3
c. diet		
Unchanged	67	44.7
Less balanced	46	30.7
More balanced	37	24.7

Table 4

Malaysian thoughts on Behavioural Changes

Items	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Mean
I like how I live life before COVID-19 pandemic	8.7%	2.0%	35.3%	54.0%	3.35
I think behavioural changes give me different experiences that I have never faced before.	4.7%	4.0%	63.3%	28.0%	3.15
I am more prepared to face the problems in future	3.3%	12.7%	67.3%	16.7%	2.97
It gives more negative impact than positive impact in my life	9.3%	32.0%	43.3%	15.3%	2.65

Table 5

Categories of respondents' responses on how Malaysians adapt to behavioural changes

Category	Description	Total	Percentage (%)
A	Try to adapt	53	35.3
B	Others	32	21.3
C	Follow the flow	27	18.0
D	Think positively	14	9.3
E	Be more prepared	11	7.3
F	Did not answer	9	6.0
G	Seek help and advice	4	2.7

How Malaysians adapt to the Behavioural Changes during COVID-19

This section focuses on the opinions and comments on Malaysians adapting to the behavioural changes during COVID-19. The results obtained from Part D of the questionnaire provide answers to research question 3. Although the responses varied according to different respondents' perspectives of people, they can still be categorised into a few similar themed groups as shown in Table 5.

The highest percentage of 35.3 shows that it is best to adapt to behavioural changes by adapting to the new norm. Detailed responses indicate that the aim is achieved through embracing the change and practising a safe and healthy lifestyle. In addition, most who chose

to adapt to the behavioural changes agreed that following the government-SOPs can help them adapt to the lifestyle.

On the contrary, only 2.7% agreed that seeking help and advice from others would help them adapt to the behavioural changes. Among the reasons given are they share their problems and worries with family and friends, so they are aware of their mental health from time to time and support each other.

The second highest percentage is 18% the response was 'Follow the flow' of their current situation in adapting to their behavioural changes. A percentage of 9.3 decided to adapt by staying positive which among the responses are to think positively, learn from mistakes and situations that happen, improve oneself, and accept the fact that this pandemic is a challenge that one must go through. Others stated that it was better if they did not overthink too much and become more open-minded about the changes.

In conclusion, despite not many of the respondents seeking help and advice from other people, they are handling the situation quite well by trying to adapt to the new norm and always looking at the bright side of the situation,

Implications

Based on the findings and discussion, there are some implications that can be illustrated. Firstly, the findings indicated that the behaviour changes among Malaysians as a response to the COVID-19 pandemic are novel as well as expected. These behaviours reflect the implicit psychological state of the people which consists of fearfulness and anxiousness. Additionally, mental well-being such as depression and post-traumatic stress disorder also need to be considered. Therefore, measures need to be taken to in response to this, steps must be taken to downplay and minimise the hazards during and post-pandemic (Goldmann & Galea, 2014). Other behavioural changes like change of lifestyle show that Malaysians are affected especially in terms of physical exercise, sleep, and diet. Due to the new norm of working from home, people tend to sleep more, and this is an advantage, especially for those who have been working round the clock to complete projects as now is the time for them to improve their sleep quality. Subsequently, it is good to note that Malaysians are trying to adapt to behavioural changes in their lives and to the new norm.

Conclusion

It was found that the majority of the respondents indicated that they experience major behavioural changes due to the pandemic because they are afraid of being infected by COVID-19. Also. they are also stressed out thinking about what is going to happen in the future. The findings show that there are several effects of behavioural changes among which, they wear masks and use hand sanitiser when they are in public, they are more protective towards their family, they keep maintaining social distance as they are afraid of being infected by others, they prefer staying at home rather than meeting people and they prefer online communication instead of communicating physically. It was also found that the respondents experienced a poor diet and a decrease in sleep quality. Despite those behavioural changes, most of the respondents gave positive opinions on their thoughts to adapt and deal with these behavioural changes. They decided that the best solution they need is to adapt to the new norm and adhere to the government's SOPs in dealing with the pandemic.

Both in regard to avoiding these endangered emotional repercussions of the pandemic, necessary duly assistance should be offered to the vulnerable groups. The health authority and the government should strategize to relieve the psychological burden caused by the COVID-19 pandemic by offering emotive support to the whole population particularly to the vulnerable and helpless individuals. Family members also play an important role in helping each other to get through life during the outbreak. They must play a crucial role of support by assisting all family members in feeling safe and positive as well as maintaining a healthy mind. Consistent interaction among family members is also one important way to lessen anxiety during a pandemic and it can probably turn into an opportunity and avenue to strengthen the family bond and build emotional resilience among all members.

References

- American Psychiatric Association. (2020). New Poll: COVID-19 Impacting Mental Well-Being: Americans Feeling Anxious, especially for Loved Ones; Older Adults Are Less Anxious. Retrieved from Psychiatry.org website: <https://www.psychiatry.org/newsroom/news-releases/new-poll-covid-19-impacting-mental-well-being-americans-feeling-anxious-especially-for-loved-ones-older-adults-are-less-anxious>
- Arora, T., & Grey, I. (2020). Health behaviour changes during COVID-19 and the potential consequences: A mini-review. *Journal of Health Psychology*, 25(9), 135910532093705. <https://doi.org/10.1177/1359105320937053>
- Bernamea News. (2021). Bernama. 10,553 from Sri Petaling tabligh gathering have been tested for COVID-19 - Dr Noor Hisham. Kuala Lumpur, Malaysia: Malaysia National News Agency; 2020 March 19. Retrieved 2020 March 24. Available at: <https://www.bernama.com/en/news.php?id=1822739>
- Burrows, L. (2021). Research shows how people changed their behavior in response to Covid-19
- Guidance. National guidelines overruled state and local pandemic policies. Harvard Health College. <https://www.seas.harvard.edu/news/2021/05/research-shows-how-people-changed-their-behavior-response-covid-19-guidance>
- Dawi, N. M., Namazi, H., Hwang, H. J., Ismail, S., Maresova, P., & Krejcar, O. (2021). Attitude Toward Protective Behavior Engagement During COVID-19 Pandemic in Malaysia: The Role of E-government and Social Media. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.609716>
- Evans, D. J. R., Pawlina, W. (2021). Effects of Covid-19: The Need to Assess the Real Value of Anatomy Education. *Anatomical Sciences Education*. Volume 14, Issue 2 p. 129-131. <https://doi.org/10.1002/ase.2061>
- Guan, N. C., Juhari, J., Nair, P., Ken, S., & Shanmugam, H. (2021). *Impacts of COVID-19 Pandemic on Mental Health in Malaysia: A Single Thread of Hope*. Retrieved from website: <http://www.mjpsychiatry.org/index.php/mjp/article/viewFile/536/415>.
- Guterres, A. (n.d.). All hands-on deck to fight a once-in-a-lifetime pandemic. Retrieved from United Nations website: <https://www.un.org/en/un-coronavirus-communications-team/all-hands-deck-fight-once-lifetime-pandemic>
- Goldmann, E., Galea, S. (2014). Mental health consequences of disasters. *Annu Rev Public Health*. 2014;35:169–183. doi: 10.1146/annurev-publhealth-032013-182435. [PubMed] [CrossRef] [Google Scholar]

- Jarrett, C. (2020). How lockdown may have changed your personality. Retrieved from [www.bbc.com website: https://www.bbc.com/future/article/20200728-how-lockdown-may-have-changed-your-personality](https://www.bbc.com/future/article/20200728-how-lockdown-may-have-changed-your-personality)
- Knell, G., Robertson, M. C., Dooley, E. E., Burford, K., & Mendez, K. S. (2020). Health Behavior Changes During COVID-19 Pandemic and Subsequent “Stay-at-Home” Orders. *International Journal of Environmental Research and Public Health*, 17(17), 6268. <https://doi.org/10.3390/ijerph17176268>
- Prochaska J. O., & Velicer W. F. (1997). The transtheoretical model of health behavior change. *Am. J. Health Promot.* 12 38–48. 10.4278/0890-1171-12.1.38.
- Rossinot, H., Fantin, R., Venne, J. (2020)./ Behavioural Changes during COVID-19 Confinement in France: A Web-Based Study. *International Journal of Environ. Res. Public Health*, 17 (22), 8444; <https://doi.org/10.3390/ijerph17228444>
- Shaukat, R., Asghar, A., & Naveed, M. A. (2021). Impact of Health Literacy on Fear of Covid-19, Protective Behavior, and Conspiracy Beliefs: University Students’ Perspective. *Library Philosophy and Practice (E-Journal)*. Retrieved from <https://digitalcommons.unl.edu/libphilprac/4620/>
- The Harvard Gazette. (2020). Reducing the spread of coronavirus starts with basic hygiene. Retrieved from Harvard Gazette website: <https://news.harvard.edu/gazette/story/2020/03/preventing-the-spread-of-coronavirus-starts-with-basic-hygiene/>
- Wang, G., Zhang, Y., Zhao, J., Zhang, J., Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*. 2020;395(10228):945–947. [https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X)
- Wiley Online Library, & Garcia, L. Y. (2021). Factors explaining the fear of being infected with COVID-19. <https://onlinelibrary.wiley.com/doi/10.1111/hex.13274>
- World Health Organization. (2020). Impact of COVID-19 on people’s livelihoods, their health and our food systems. Retrieved from World Health Organization website: <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people’s-livelihoods-their-health-and-our-food-systems#:~:text=Nearly%20half%20of%20the%20world’s,risk%20of%20losing%20their%20livelihoods>
- Worldometer. (2021). Coronavirus toll update: Cases & deaths by country. Retrieved from [Worldometers.info website: https://www.worldometers.info/coronavirus/](https://www.worldometers.info/coronavirus/)
- Yunus, W. M. A. W. M., Badri, S. K. Z., Panatik, S. A., & Mukhtar, F. (2021). The Unprecedented Movement Control Order (Lockdown) and Factors Associated with the Negative Emotional Symptoms, Happiness, and Work-Life Balance of Malaysian University Students During the Coronavirus Disease (COVID-19) Pandemic. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.566221>