Compliance with Public Health Measures and Psychological Effects of COVID-19: Two-Group Cross-Sectional Research

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ABSTRACT

Objective: COVID-19 has spread since the day it emerged and was declared as a global pandemic. Determining the psychological effects of this situation and the compliance with public health measures will be a guide both in the fight against the COVID-19 pandemic and possible epidemics in the future. This two-group, cross-sectional descriptive study aimed to determine compliance with public health measures against COVID-19 and to evaluate the levels of fear, depression, anxiety, and stress by analysing individuals who experienced and did not experience COVID-19.

Method: The study sample consisted of a total of 636 participants. Of these participants, 328 had a positive Polymerase Chain Reaction test and 308 had a negative test. Data was collected using the Diagnostic Form, Questionnaire for the Compliance with Public Health Measures Against the COVID-19, Fear of COVID-19 Scale, and the Short Form Depression Anxiety Stress Scale in our online database.

Results: Although the participants' compliance with public health measures regarding the use of masks is high, their compliance with the measures related to physical distance is low. Moreover, fear of COVID-19, anxiety, stress, and depression levels are higher in individuals who experienced COVID-19 than those who did not experience COVID-19. Also, both groups have high levels of fear, anxiety, stress, and **depression.**

Conclusion: In conclusion, priority should be given to strategies aimed to increase compliance with physical distance and to detect and control the psychological effects of COVID-19 in the whole society, especially in individuals experiencing COVID-19.

Keywords: COVID-19, public health measures, compliance, psychological effects

1. INTRODUCTION

The novel Coronavirus (COVID-19), a virus detected for the first time in Wuhan, China, has spread around the world since the day it emerged and the spread was declared as a global pandemic by the World Health Organization (WHO) on March 11, 2020 (1,2). As of April 25, 2021, there have been 146,054,107 confirmed positive cases of COVID-19 resulting in 3,092,410 deaths worldwide (3).

The COVID-19 virus spreads when an infected person coughs, sneezes or talks. After dispersion, while smaller droplets suspend in the air, larger droplets settle on the surfaces and remain alive for a while (4). Transmission may occur through inhalation of these droplets by non-infected individuals or by taking hands to the mouth, nose, or eye mucosa after contact with infected surfaces (5). Public health measures are being implemented across the globe to limit transmission and reduce mortality and morbidity due to COVID-19 (6-9). These measures include wearing a mask, ensuring hand hygiene,

avoiding potentially contaminated people or environments, and physical distancing (5,8). Immunization is considered the definitive solution for controlling the pandemic. Some of the vaccine studies conducted for this purpose have been completed, and as of 18 February 2021, at least seven different vaccines across three platforms have been rolled out in countries. The vaccination process is continuing, and as of 25 April 2021, a total of 899,936,102 doses of vaccine have been administered worldwide (3). However, despite vaccination, the pandemic continues in some countries without slowing down. As reported by WHO, "Being vaccinated does not mean that we can throw caution to the wind and put ourselves and others at risk." Because it is still not clear the degree to which the vaccines can protect not only against disease but also against infection and transmission. It is not yet known how long immunity from different COVID-19 vaccines will last. That is one reason why we still need to follow all public

health measures even though COVID-19 vaccines are rolling out (10,11). Therefore, it is necessary to identify the society's compliance with the proposed public health measures and prepare plans according to the compliance status.

In addition to the fact that new cases and deaths have been continuing without pausing since the emergence of the pandemic, media broadcasts on the subject and the fear of getting unable to access healthcare services, of getting infected and dying have led to the development of various phobias (12). It has been suggested that as previous outbreaks caused fear among people, increased stress levels, and led to anxiety and depression, individuals' psychological status should be evaluated in cases of such events that affect large masses (13,14). Psychological outcomes of the COVID-19 pandemic are not yet fully known (13,15,16). There is a limited number of studies addressing psychological status, especially in individuals who experienced COVID-19 (17). For a healthy population, identifying the psychological effects of this pandemic is critical for planning appropriate psychiatric treatment and determining future strategies. Additionally determining the psychological effects and the compliance with public health measures will be a guide both in the fight against the COVID-19 pandemic and possible epidemics in the future.

This study aimed to determine compliance with public health measures against COVID-19 and to assess the fear, depression, anxiety, stress levels by analysing individuals who experienced and did not experience COVID-19.

2. METHOD

2.1. Research Question

The research question was as follows:

What is the level of compliance of the society with public health measures against COVID-19?

Does the compliance with public health measures against COVID-19 differ between individuals who experienced COVID-19 and those who did not?

Is there a difference between the individuals who experienced COVID-19 and those who did not regarding the fear, anxiety, depression, and stress levels?

Has COVID-19 affected the general psychological wellbeing of society?

Type of the study

This study was conducted as two-group cross-sectional research.

Inclusion criteria

- Having a positive PCR test and receiving only medical treatment for COVID-19 (Group Positive-GP);

- Having no positive PCR test and receiving no treatment for COVID-19 (Group Negative-GN);

- Being aged from 18 to 85 years;

- Being a non-healthcare professional;

- Giving consent to participate in the study.

2.2. Study sample

According to the study by Zhanga et al (17) the sample size was estimated to be 200 individuals in each group considering the effect size of 0.4, with a confidence level of 95% and a test power of 95%. The sample was kept larger considering the possibility that data loss would occur. Data of patients who presented to the COVID-19 outpatient clinic of a university hospital between 10 February 2021 and 20 April 2021 were accessed. There were 26,181 applications in total, and the number of patients who met the inclusion criteria and had contact details was 9,522. These patients were divided into two groups according to their PCR test result: there were 2,477 patients with positive PCR (GP) and 7,045 patients with negative PCR (GN). A stratified sampling method was used for sample selection. Three strata were formed according to the age ranges (18-24 years of age, 25-64 years of age, and 65-84 years of age) specified in WHO's COVID-19 Situation Report-198.[18] Using a simple random numbers table, a total of 1,200 people (600 people in GP; 600 people in GN) including 200 people from each stratum were sampled. In the end, data of 636 people were accessed: for GP, 328 individuals who could be reached by phone and agreed to participate in the research, and for GN, 308 individuals who could be reached by phone and agreed to participate in the research (Figure 1).

2.3. Data collection tools

Diagnostic form

The diagnostic form was created by the authors. This form consists of 9 items (rated on a 1-5 scale) designed to describe the participants› sociodemographic characteristics, medical history (6 items), reasons for the fear of COVID-19 (1 open-ended item).

Questionnaire for compliance with public health measures against the COVID-19

The questionnaire was prepared based on WHO's (COVID-19) advice list for public health measures (9). It is a 15-item questionnaire and all items are positively worded. Responders were asked to answer each item as "yes" (1 point) or "no" (0 points).

Fear of coronavirus (COVID-19) scale

The Fear of COVID-19 Scale is a one-dimensional scale consisting of 7 items, all of which are worded positively (19). It

has a Likert-type rating system. Scoring is as follows: 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree. The total score calculated by adding up each item score shows the level of the COVID-19 fear the individual is experiencing. The possible total score ranges from 7 to 35. Higher scores reflect greater fear. The reliability and validity study of the Turkish version of the scale was conducted by Bakioglu et al. (20) reporting the Cronbach's alpha coefficient as 0.88. In this study, the Cronbach's alpha coefficient of the scale was 0.85.

Short-form depression anxiety stress scale (DASS-21)

The Depression Anxiety Stress Scale (DASS) originally consisted of 42 items. Later, the scale was shortened to 21 items, and the short version (DASS 21) was reported to have the validity to perform the same measurement (21,22). DASS 21 compromises 7 items selected from each of the depression, stress, and anxiety subscales. It is a Likert-type scale and each item is scored on a 4-point scale: 0 "Did not apply to me at all", 1 "Applied to me to some degree", 2 "Applied to me to a considerable degree", and 3 "Applied to me very much". The validity study of the Turkish version of the short form was carried out by Yılmaz et al. (16). The omega value of the scale was found to be 0.82 for the depression sub-scale, 0.80 for the anxiety sub-scale, and 0.75 for the stress sub-scale. Depending on these results, the Turkish form was reported to be valid and reliable. In the present study, the Cronbach's alpha value was found to be 0.80 for the depression sub-scale, 0.78 for the anxiety sub-scale, and 0.75 for the stress sub-scale. Table 1 shows the evaluation of the scores from this scale.

Table 1. Interpretation of the scores received from the short-form depression anxiety stress scale (DASS-21)

	Depression	Anxiety	Stress
Normal	0-4.5	0-3.5	0-7
Mild	4.6-6.5	3.6-4.5	7.1-9
Moderate	6.6-10	4.6-7	9.1-12.5
Severe	10.1-13.5	7.6-9.5	12.6-16.5
Very Severe	14.6+	9.6+	16.6+

2.4. Data collection method

The data collection tools were converted to online tools keeping their original form. All participants were called and informed about the research. After the information, the data collection form was sent online (via e-mail, WhatsApp, SMS) to the individuals who agreed to take part in the study, and the participants were asked to complete the form. The first part of the form consisted of consent, participants who did not consent was not allowed to answer other parts of the form.

2.5. Statistical analysis

The responses to the open-end question "What is the reason that scares you the most about the COVID-19 pandemic?" were analysed by two separate independent researchers. A total of 258 different responses were examined, and the causes of fear were grouped under eight headings by combining different expressions containing the same reason for fear. Descriptive statistical methods (percentage, mean, standard deviation) were used for evaluating the data. The Pearson Chi-square test was used for testing categorical variables between the two groups. For the inter-group comparisons, the Independent Sample-T test was employed for normally distributed data and the Mann-Whitney U test for non-normally distributed data.

2.6. Ethical Dimensions of the Research

This study was performed only after obtaining the ethics committee approval (2020/514/181/3), agency approval, and other necessary permissions for the use of the data collection forms. The individuals who agreed to participate in the research were informed about the research, and their consent was obtained. The study started on February 2021 and was finished by April 2021. For the performance of the research, we adhered to the World Medical Association (WMA) – Ethical Principles for Medical Research Involving Human Subjects. In this study, data analysers were blinded.

2.7. Limitations of the study

1. The study sample is limited to individuals who applied to the COVID-19 outpatient clinic of a university hospital between 10 February 2021 and 20 April 2021.

2. The results are limited to the data collected via the Diagnostic form, the Questionnaire for compliance with public health measures against the COVID-19, the Fear of coronavirus (COVID-19) scale, and the Short-form depression anxiety stress scale (DASS-21).

3. RESULTS

The groups were similar in terms of the characteristics that would affect the outcomes of the study (p>0.005) (Table 2).

When the responses to the questions on public health measures against the COVID-19 were evaluated, it was found that 96.6% (n=614) of the participants said "yes" to the item "'I wear a mask when I go out", 96.2% (n: 612) of the participants said "yes" to "I wear a mask in the way covering my mouth and nose", and 95.6% (n: 608) of the participants said "yes" to "I wear a mask in crowded places".

When it came to the statements that got the highest rates of "no"; "I do not make home visits to my close relatives/friends", "I do not leave the house unless necessary", and "I pay attention to keep the physical distance (minimum 1 meters)" were the top three with the rates of 25.8% (n=164), 18.9% (n=120), and 18% (n=103), respectively. When the groups were compared regarding the responses they gave to and the scores they got from the compliance questionnaire, no difference was found (p>0.05) (Table 3).

Table 2. Descriptive characteristics of the groups

Results		Group Positive (n=328)	Group Negative (n=308)	T	P
Age (Mean±SD)		44.29±16.04	37.83±12.08	4.03	0.052
		n (%)	n (%)	χ2	P
Age Ranges	18-24	113(35.5)	110(35.7)		
	25-64	148(45.7)	139(45.2)	09.12	0.985
	64-84	67(18.8)	59(19.1)		
Vaccinated individual	18-24	4(5.3)	3(4.5)		
	25-64	26(34.6)	23(27.3)	24.26	1.00
	64-84	49(65.1)	55(68.2)		
Gender	Female	168 (51.2)	186 (60.4)	2.70	0.114
	Male	160 (48.8)	122 (39.6)		
Employment	Employed	144 (43.9)	118 (38.3)	10.07	0.063
	Unemployed	184 (56.1)	190 (61.7)		
Systemic Disease	Yes	140 (42.7)	130 (42.2)	21.07	0.082
	No	188 (57.3)	178 (57.8)		
A Family Member Who Have Had COVID-19	Yes	169 (51.5)	93 (30.2)	29.38	0.001
	No	159 (48.5)	215 (69.8)		
A Family Member Who Died of COVID-19	Yes	2 (0.6)	1 (0.3)	0.27	1.00
	No	326 (99.4)	307 (99.7)		

t= independent samples T χ2 = Pearson Chi-Square

Table 3. Scores obtained from the questionnaire for compliance with public health measures against COVID-19 and the state of compliance

		Group Positive (328)		Group Negative (308)		Total (636)		U	p
		Median (IQR)		Median (IQR)		Median (IQR)			
Score of the Questionnaire for Compliance with Protection Measures		13 (3-15)		12.5 (7-15)		13(3-5)		11327	0.102
Prevention Measures against the Pandemic		Yes	No	Yes	No	Yes	No		
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	χ²	p
1	I avoid entering crowded places.	302(91.9)	26(8.1)	282(91.6)	26(8.4)	584(92.0)	52(8.0)	-0.00	0.947
2	I wear mask when I go out.	318(96.7)	10 (3.3)	296(96.1)	12(3.9)	614(96.6)	22(3.4)	-0.00	0.780
3	I wear mask in crowded places.	314(95.7)	14(4.3)	294(95.5)	14(4.5)	608(95.6)	18(4.4)	-0.00	0.986
4	I wear mask in the way covering my mouth and nose.	315(96.0)	13(4.0)	297(96.4)	11(3.6)	612(96.2)	24(3.8)	-0.31	0.872
5	I pay attention to keep the physical distance (minimum 1 meters).	276(84.1)	52(15.9)	246(79.8)	62(20.2)	522(82.0)	114(18.0)	-0.04	0.403
6	I do not make home visits to my close relatives/ friends.	260(79.2)	68(20.8)	212(68.8)	96(31.2)	472(74.2)	164(25.8)	-0.12	0.058
7	I ensure hand hygiene (washing/scrubbing hands) after touching surfaces open to contact.	320(97.5)	8(2.5)	297(96.4)	11(3.6)	617(97.0)	19(3.0)	0.12	0.727
8	For ensuring hand hygiene (washing/scrubbing hands), I scrub my hands at least for 20 minutes.	288(87.8)	40(12.2)	262(85.0)	46(15.0)	550(86.4)	86(13.6)	-0.33	0.561
9	I do not leave the house unless necessary.	270(82.3)	58(17.7)	246(78.9)	62(21.1)	516(81.1)	120(18.9)	-0.02	0.693
10	I change my clothes after coming from outside.	276(84.1)	52(15.9)	274(89.0)	34(11.0)	550(86.4)	86(13.6)	0.78	0.165
11	I ensure hand hygiene after coming from outside (handwashing or handrubbing with disinfectant).	320(97.5)	8(2.5)	297(96.4)	11(3.6)	617(97.0)	19(3.0)	0.20	0.727
12	I use disposable tissues when I cough or sneeze.	276(84.1)	52(15.9)	248(80.5)	60(19.5)	524(82.3)	112(17.7)	-0.39	0.489
13	I am careful to keep my hands away from my eyes, mouth and nose.	276(84.1)	52(15.9)	268(87.0)	40(13.0)	544(85.5)	92(14.5)	0.48	0.387
14	I frequently ventilate the indoor areas I am in.	312(95.1)	16(4.9)	296(96.1)	12(3.9)	608(95.6)	28(4.4)	-0.02	0.727
15	I do not make contact with other people like shaking hands or hugging.	300(91.4)	28(8.6)	298(96.8)	10(3.2)	598(94.0)	38(6)	0.83	0.137

U= Mann-Whitney U χ2 = Pearson Chi-Square IQR=interquartile range

Table 4. Scores obtained from the fear of COVID-19 scale and reasons for fear

		Group Positive (328)	Group Negative (308)		
		Median(IQR)	Median(IQR)	U	P
Fear of COVID-19 Scale Score (Lowest Possible Score 7, Highest Score 35)		29 (7-35)	28 (7-35)	1116	0.073
		n (%)	n (%)	χ^2	P
Does the COVID-19 pandemic scare you?	**Yes**	276 (84.1)	246 (79.9)	21.82	0.52
	No	52 (15.9)	62 (20.1)		
What is the reason that scares you most?	Dying	90 (32.7)	36 (14.6)	31.93	0.001
	Getting intubated	58 (21.0)	40 (16.3)		
	Losing a family member	56 (20.3)	82 (33.3)		
	Becoming permanently disabled	20 (7.2)	6 (2.4)		
	Getting ill	14 (5.1)	20 (8.1)		
	Obscurity	14 (5.1)	2 (0.8)		
	Being quarantined	12 (4.3)	18 (7.3)		
	Infect others	12 (4.3)	42 (17.1)		

χ2= Pearson Chi-Square IQR=interquartile range

Table 5. Scores obtained from the DASS-21 scale and the stress, anxiety and depression level

DASS-21		Group Positive (328)	Group Negative (308)		
		Median(IQR)	Median (IQR)	U	p
Stress Score		14 (7-21)	9 (5-21)	12316	0.002
Anxiety Score		9 (3-21)	6 (2-18)	10485	0.008
Depression Score		7 (4-21)	5 (3-21)	11705	0.011
		n (%)	n (%)	χ^2	p
Stress	Normal	72 (22)	74 (24.1)	4.05	0.013
	Mild	86 (26.2)	66 (21.4)		
	Moderate	55 (16.7)	161 (52.4)		
	Severe	112 (34.1)	2 (0.5)		
	Very Severe	3 (1)	5 (1.6)		
Anxiety*	Normal	64 (19.6)	59 (19.1)	8.06	0.015
	Mild	76 (21.5)	96 (29.2)		
	Moderate	30 (9.2)	134 (43.2)		
	Severe	150 (46.8)	11 (3.1)		
	Very Severe	8 (2.9)	18 (5.4)		
Depression	Normal	56 (18.2)	117 (35.5)	10.80	0.019
	Mild	87 (28.2)	155 (47.3)		
	Moderate	142 (46.1)	40 (12.2)		
	Severe	11 (3.6)	10 (3.1)		
	Very Severe	12 (3.9)	6 (1.9)		

U= Mann-Whitney U test χ2= Pearson Chi-Square

The median (interquartile range [IQR]) of the scores obtained by the groups on the COVID-19 scale was 29 (7-35) in GP, 28 (7-35) in GN. We observed that 84.1% (n=276) of the GP patients and 79.9% (n=246) of the GN patients said "yes" to the question, "Does the COVID-19 pandemic scare you?" It was found that the top three reasons for fear in GP were dying, getting intubated, and losing a family member with the rates of 32.7% (n=90), 21% (n=58), and 20.3% (n=56), respectively. In GN, on the other hand, the top three causes of fear were losing a family member, infecting other people, and getting intubated stated by 33.3% (n=82), 17.1 (n=42), and 16.3% (n=40) of the participants respectively (p=0.001) (Table 4).

In terms of median DASS-21 scale score (IQR) of the groups, the GP/GN ratio was as follows: stress 14 (7-21) (severe)/ 9

(5-21) (moderate) (p=0.002); anxiety 9 (3-21) (severe)/ 6 (2-18) (moderate) (p=0.008); depression 7 (4-21) (moderate)/ 5 (3-21) (mild) (p=0.011). It was determined that 34.1% (n=112) of the individuals in GP experienced severe stress and 52.4% (n=161) of the individuals in GN experienced moderate stress (p=0.013). Similarly, it was determined that 46.8% (n=150) of the individuals in GP experienced severe anxiety and 43.2% (n=134) of the individuals in GN experienced moderate anxiety (p=0.015). When depression levels were examined, it was found that 46.1% (n=142) of the individuals in GP experienced moderate depression and 47.3% (n=155) of the individuals in GN experienced mild depression (p=0.019) (Table 5).

4. DISCUSSION

In this study, we evaluated compliance with public health measures proposed for protection from COVID-19 and found the scores of the compliance survey to be similar in GN and GP. The responses to this questionnaire demonstrated that both groups had a high level of compliance with the recommendations for using masks, whereas the compliance with the recommendations for physical distancing was low. Whereas physical distancing is one of the critical measures. Maintaining physical distance has been reported as the most important public health measure in the COVID-19 pandemic and previous outbreaks. It is noteworthy that compliance with such a vital measure is low. It is known that no mask can provide 100% protection against the virus. It has been also reported that the surgical masks used by the public allow 20-30% of the droplets to pass through, and this rate increases, even more, when the mask is worn loosely, if it does not fit the face properly, and in closed environments (23). For this reason, transmission is possible even when a mask is worn unless social distancing is maintained. A modelling study investigating the data of more than 40,000 participants in the United Kingdom reported that without physical distancing, all other measures were insufficient (24). Unfortunately, it was revealed in this study that none of the participants were in full compliance with public health measures. It is thought to be a factor contributing to the rapid spread of the pandemic. Lessa et al. (25) reported that some personality traits and some sociodemographic characteristics were effective in compliance with public health measures. Conducting similar studies can be a guide in determining the reasons for the low level of compliance and which strategies may be beneficial for encouraging higher compliance. Additionally, measures should be taken especially for social distancing, and public awareness on the issue should be raised. It was thought that investigating the reasons for non-compliance with the physical distance and conducting studies to increase compliance will be an important strategy in facilitating the fight both with the COVID-19 epidemic and any epidemic that may arise later.

It was revealed when the data were examined to reveal the psychological effects of COVID-19 that the participants got high scores on the Fear of COVID-19 Scale. The causes of fear were asked and the top three causes stated by the individuals in GP were dying, getting intubated, and losing a family member. On the other hand, the top three causes mentioned by the individuals in GN were losing a family member, infecting others, and getting intubated, respectively. All answers involve the fear of disintegration of the family and deterioration in health status. Additionally, the individuals' use of the medical term "getting intubated" suggests the frightening effect of the news in the media on society. Mertens et al. (26) stated in their study that media increases the fear of COVID-19. Even though fear is motivating in some situations, excessive fear can also bring about hopelessness, concentration on negative thoughts, and psychological problems in society (20). Therefore, it is important to keep fear under control. Furthermore, encouraging individuals to obtain information only from reliable sources and preventing fearful expressions about COVID-19 in the news may contribute to the reduction of fear among people.

In our study, the groups were evaluated in terms of the scores they got from the DASS-21 sub-scales for anxiety, stress, and depression, which are the other psychological effects of the pandemic. It was found that the majority of the individuals in GP experienced severe stress and anxiety, and moderate depression; whereas the majority of individuals in GN experienced moderate stress and anxiety, and mild depression (p <0.05). Besides, the stress, anxiety, and depression levels of the individuals in GP were found to be higher than that of the individuals in GN (p<0.05). Similar to our research, a study conducted in China reported higher anxiety and depression levels in patients who experienced COVID-19 as compared to the general population (17). It was thought that the higher level of anxiety in GP was due to unknown long-term effects of COVID-19 on health as well as the increased concerns for the future. Moreover, these consequences were thought to emerge due to the fear of death and feelings of helplessness, which are likely to be experienced at the time of illness and quarantine process.

Stress and anxiety at a mild level have a useful function in dealing with difficulties, reacting to physical ailments, and taking the necessary measures to prevent and alleviate the disease. However, excessive and prolonged stress and anxiety can cause physical and psychological health problems (27,28). It is known that advanced stress and anxiety are associated with depression. Moderate and severe depression requires medical treatment, while mild depression requires psychosocial treatment. If depression is not treated, it results in social isolation and a decrease in the quality of life. Especially when it is long-lasting and with moderate to severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school, and in the family. At its worst, depression can lead to suicide (29,30) or increase the rate of death (31). For this reason, the results of this study are important as they reveal that psychological support strategies should be developed in Turkey and in other countries affected by the pandemic.

5. CONCLUSION

In conclusion, the compliance of individuals with public health measures against COVID-19 is not at the desired level. Especially the compliance with the measures for social distancing is low. The levels of fear, anxiety, stress, and depression related to COVID-19 are higher in the individuals who experienced COVID-19 compared with those who did not experience COVID-19, with both groups having high levels of fear, anxiety, stress, and depression. Priority should be given to strategies aimed to increase compliance with public health measures against COVID-19 and to identify and control the psychological effects of COVID-19 in the whole society, especially in individuals experiencing COVID-19. Based on these results, we recommend:

- Raising awareness of the individuals for the compliance with public health measures against COVID-19;

- Adopting more rigorous measures for the compliance with social distancing;

- Screening of the whole society, especially individuals experiencing COVID-19, in terms of the psychological effects of COVID-19;

- Planning initiatives for psychological support.

Disclaimer

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Declaration of competing interest

The authors have no conflicts of interest to declare.

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