

Why Ignore the Dark Side of Social Media? A Role of Social Media in Spreading Corona-Phobia and Psychological Well-Being

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> Abstract: Coronaviruses are a category of associated viruses that trigger disease in mammals and birds. Human coronaviruses have been identified including severe acute respiratory syndrome-related coronavirus (SARS-CoV) in 2003, human coronavirus NL63 (HCoV NL63) in 2004, human coronavirus HKU1 (HKU1) in 2005, Middle East respiratory syndrome-related coronavirus (MERS-CoV) in 2012, and severe acute respiratory syndrome-related coronavirus-2 (SARS-CoV-2) in December, 2019. This study aims to examine whether social media at residing/admittance in guarantine ward (due to corona virus pandemic disease) affects psychological health or not? We asked questions from 250 quarantined patients infected from coronavirus (restricted to quarantine ward) about their psychological health who have accessed of different channels of social media. This study concludes that social media has caused of various psychological symptoms in quarantined patients (due to coronavirus) in form of anxiety, depression, negative well-being, lack of self-control, general health and vitality. This study suggests that there is an urgency to provide awareness/right information to each infected individual and their family members to create peaceful society and social rest. Thus, productive use of social media is recommended while minimizing its negative impact.

> **Keywords:** Coronavirus (COVID-19); social media; psychology effect; depression; negative well-being; lack of self-control

1 Introduction

Today's Coronavirus is also known as COVID-19 which belongs to a family of severe acute respiratory syndrome Covid-19 (SARS-CoV) [1,2]. According to the World Health Organization (WHO), Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered corona virus [3]. Coronavirus family causes respiratory illness in people and it circulates among animals, including camels, cats and bats [3]. The possibility of contagion will distort our psychological reactions to ordinary experiences, causing us to behave in unpredictable ways. Too much of our attention is scarcely consumed by the threat of illness. For weeks, nearly every publication has articles about the corona virus pandemic on its front page; radio and TV shows provide back-to-back coverage of the current death tolls, packed with disturbing figures, realistic suggestions or satire [4]. At now, this relentless bombing will lead to heightened anxiety and with direct consequences on our mental health. The recent reports on coronavirus reflect much deeper social and psychological shifts [5,6].

Globally, social media defined as web-based tools that allow users to interact with each other in some way by sharing information, opinions, knowledge and interests online is shaping human interactions in varied ways [7]. It has been estimated that 94% of adults worldwide own a social media site account and have visited or used one within the last month [8]. Approximately 73% of adolescents use social media [9]. Social media through social networking sites (Facebook, Whatsapp, Skype, Imo etc.) user



creates, share and/or exchange information and ideas in virtual communities and they are able to network with other members who share similar or common interest, dreams and goal [10].

Social media platforms are at the heart of this crisis. These platforms act as facilitators and multipliers of COVID-19-related misinformation. World Health Organization (WHO) noted that urgent measures must now be taken to address the coronavirus infodemic. This infodemic compromises outbreak response and increases public confusion about who and what information sources to trust; generates fear and panic due to unverified rumours and exaggerated claims; and promotes xenophobic and racist forms of digital vigilantism and scapegoating [11,12]. There are so many things outside of our control, including how long the pandemic lasts, how other people behave, and what's going to happen in our communities [13–15].

Over the past few weeks, misinformation about the new coronavirus pandemic has been spreading across social media at an alarming rate. The sheer number of false and sometimes dangerous claims is worrying, as is the way people are unintentionally spreading them in ever wider circles. In the face of this previously unknown virus, millions of people have been turning to social media platforms in an attempt to stay informed about the latest developments and connected to friends and family. We have spotted some troubling trends as the coronavirus pandemic spreads.

Halting the coronavirus unrelenting spread across the world will ultimately depend on whether enough people can be convinced to change their behaviors with reliable and factual information about the deadly pandemic. Unfortunately, social media is driving misinformation about COVID-19, and far too many people believe the myths in their news feeds. The aim of this study is to find, does social media provides solace or grounds for misinformation, (de)humanization, and discrimination? If yes, how it caused/impact on psychological health of COVID-19 infected quarantine patients? It means that social media is providing a platform which causes psychological illness of already infected patients of coronavirus. As COVID-19 spreads social media platforms like Facebook and Twitter, which didn't exist or barely existed during past major outbreaks, are facilitating important conversations about the virus, while at the same time allowing sensationalism and misinformation to spread [11]. Furthermore, the unprecedented level of real-time information on our fingertips which can both give us the tools we need to make smart decisions, but it also makes us more anxious about what's to come.

Studies have shown that fear of contagion often lead to harsher behaviours when judging a breach of loyalty or someone who fails to respect an authority. Besides making us harsher judges of the people within our social group, the threat of disease can also lead us be more distrustful strangers. That's bad news because it results in prejudice and xenophobia. Reports of racism toward people of Asian heritage have surged during the pandemic [16,17]. The influence of the behavioural immune system varies from individual to individual; not everyone would be affected to the same degree. Some people have a particularly sensitive behavioural immune system that makes them react extra strongly to things that they interpret as a potential infection risk [18]. We do not yet have any hard data on the way that the coronavirus outbreak is changing our minds but the theory of the behavioural immune system would certainly suggest that it's probable.

At present, the total number of cases at global level reached up to 24,07,400 deaths and recoveries are 165,071 and 625,129 respectively. In Pakistan total number of cases reached up to 8348, deaths and recoveries have been 168 and 1868 respectively (according to worldometer as on 20 April 2020). Official website (Covid.Gov.Pk) pointed-out that virus is spreading rapidly and the situation is becoming more dangerous in future. According to the BBC news virus has a transmission channel from animals to human. Pakistan is also facing similar type of situation just like felt by the whole world. But in the case of Pakistan societies are diverse, social exclusion, bad institutional quality, free hand to media channels make situation more severe [19,20]. Many individuals diagnosed with COVID-19 virus may develop mild to moderate respiratory failure and may recover without needing medical care [21,22]. This study is going to examine whether frequently used of social media in residing/admittance quarantine ward (due to corona virus pandemic disease) affects their psychological/mental health or not.

2 Methods

2.1 Data and Variables Descriptions

During COVID-19 outbreak in Pakistan more than 8348 persons with an epidemiologic exposure to coronavirus have been instructed to remain in hospitalized quarantine/isolation ward (established by the special order of Health Department, Government of Pakistan). Only those patients who have affected or suspected with prominent symptoms of corona virus are advised to place in quarantine ward and nobody has permission to visit/meet the patient including family members except doctors, nurse and paramedical staff. At quarantine ward, only source of information has social media and healthcare staff. The data was collected through questionnaires of 250 quarantine patients about their psychological health (from different public and private hospitals) which have quarantine ward. In order to examine the impact of social media on psychological health of quarantine patients a questionnaire composed of 30 multiple choice questions (MCQs) for each participant who has stayed in quarantine ward for at least one day. Each respondent took approximately 20-minutes to complete the questionnaires. Quarantined persons have instructed not to leave hospital/quarantine ward without instructions of hospital admin.

Questions explored in questionnaires including assessing the social media facilities, source of information/knowledge COVID-19, understanding of quarantine ward and their psychological health. The psychological effect of quarantine ward has evaluated through psychological index of well-being based on psychology effect; depression; negative well-being; lack of self-control; general health; vitality [23]. All questions have been rated and evaluated by Likert scale from insignificant to severe psychological impact (Insignificant, minor, moderate, major and severe). Each core variable under psychological well-being has been divided into 5-questions. All persons, who have been admitted in hospital quarantine ward due to coronavirus outbreak in Pakistan, were eligible for participation in this study.

The most popular social media platform used by the quarantine patients were WhatsApp (88.4%), followed by Facebook (71.2%), YouTube (35.6%), Twitter (11.9%), Skype (9.1%), Instagram (7.5%), Imo (2.6%), LinkedIn (1.3%), and Snapchat (0.9%). Likert Scale was used (very often, frequently, neutral, rarely and never) to find most commonly platform and how much time spend on social media.

2.2 Measurements of Psychological General Well-Being Index (PGWB)

Grossi et al. [23] developed the Psychological General Well-Being Index (PGWBI) for measurement of subjective psychological well-being. In details, it assesses self-representations of intrapersonal emotional states reflecting a sense of subjective well-being or distress and thus captures what we could call a subjective perception of well-being. Consisting of 30 standardized items, the tool produces a single measure of psychological well-being. A full measure provides subscales to the assessment in following domains: anxiety, depression, negative well-being, lack of self-control, general health, and vitality. The index has been constructed based on each dimension using Likert scale by equal importance and score. A score of \geq 30 has been used to estimate the prevalence of psychological index of well-being. Internal intensity has been treated as reliable if Cronbach's alpha value is more than 0.80 [24].

2.3 Statistical Analysis

Mean and standard deviation were calculated to summarize and focus continuous variables. For categorical variables group proportions were calculated. Student *t* tests have been used to examine relationships between demographic variables and the psychological outcome variables. Analysis of variance (ANOVA) was used to analyze the difference among group means between social media and psychological well-being of quarantine patients. A *p*-value of ≤ 0.05 was considered to be significant for all analyses. Qualitative data was coded and analyzed to indicate and emphasize emerging themes. Discrepancies were resolved by consulting specific instances in the data, discussing their relationship to established themes and reaching consensus as a group.

3 Results

3.1 Demographics and Description of Quarantined Persons

The questionnaires were completed by 250 quarantined persons (those were restricted to quarantine ward and limited access to social contacts) including 178 males (71.2%) and 72 females (28.8%). The questionnaires had been completed through respondents at their placement in quarantine ward and/or by the end of quarantine period up till completion of 250 respondents. Eighty-eight percent of respondents had assessed the television/news channels in quarantine ward against the 12%. Ages of respondents between 20-30 were 16%, 29.6% of 31-40, 40.8% of 41-50 and 13.6% were > 50. Marital status as 64% were married and 36% were unmarried. According to educational status, 54% of them have passed a secondary school level of education, 20.8% college level and 25.2 at university level. In term of income status, 67.2% respondents had a combined house-hold income of \geq 20,000 (Pak Rs). 250 respondents (100%) were described about being placed in guarantine ward only once designed by the hospital. The median duration of quarantine was 4 days. No. of respondents stayed in quarantine ward for two days were 2.0%, for 4 days 7.6%, for 6 days 10.8%, for 8 days 27.6% and > 10 days 52% (Tab. 1). Daily minutes spends on social media shows that 4.80% of the respondents spent 60 minutes or less per day on social media; 14.4% of the respondents spent 61-120 minutes per day on social media; 27.2% of the respondents spent 121-180 minutes per day on social media; 35.6% spent 181-240 minutes per day on social media; and 18% spent more than 240 minutes per day on social media.

Characteristics		Frequency	Percentage
		(N = 250)	(%)
Gender	Male	178	71.2%
	Female	72	28.8%
	Total = 250		
Age	20-30	40	16.0%
	31–40	74	29.6%
	41–50	102	40.8%
	> 50	34	13.6%
	Total = 250		
Marital status	Married	160	64.0%
	Unmarried	90	36.0%
	Total = 250		
Educational status	School level	135	54.0%
	College level	52	20.8%
	University level	63	25.2%
	Total = 250		
Income status	< 20,000	82	32.8%
	> 20,000	168	67.2%
	Total = 250		
No. of days stay in	2	05	2.00%
quarantine ward	4	19	7.60%
	6	27	10.8%
	8	69	27.6%
	<u>></u> 10	130	52.0%
	Total = 250		

Table 1: Characteristics of quarantined persons used of social media

Minutes spend on	< 60 mint	25	4.80%
social media daily	61-120 mint	40	14.4%
	121-180 mint	45	27.2%
	181-240 mint	118	35.6%
	> 240	70	18.0%
	Total = 250		
Access to television	No	31	12.4%
	Yes	219	87.6%
	Total = 250		

Note: All the information collected by the author's self-basis and not any funding received for this purpose. Source of data can be verified through official website; http; www.COVID.Gov.PK

According to preventive measure (as prescribed by the government of Pakistan), persons traveled aboard must be screened-out at airports and if their symptoms were positive, they should be shifted quarantine ward for further assessment. These individuals and their family members including friends and those he/she had met were made part of suspicious COVID-19 transmission and should be shifted into quarantine ward. All suspected person's swab sample, for COVID-19 test had been sent out to laboratory for confirmation. If the result is positive, then proper medical treatment in terms of quarantine/isolation procedures must be started. Interestingly, 90% respondents were aware about the importance of quarantine ward through social media such as to prevent transmitting to this infection to others but more than half of them didn't want to go to quarantine ward. 95% respondents were notified/screened-out by the government agency at various sites about the suspicion of COVID-19 and only 5% respondents were declared/notified by themselves about these symptoms and showed willingness to go to quarantine ward to prevent themselves as well as their families. 60% of respondents claimed that mostly same/old information has viral/repeatedly through various platforms of social media. 55% of respondents were accepted social media is a good and best way for time passing in quarantine ward.

3.2 Information on Infection Control Measures

Each respondent got information during his/her stay in guarantine ward through health workers including doctors, nurses and paramedical staff (15%), media and internet (70%) and family members with mobile (15%). 85% quarantined persons were those who felt that they were not being well-treated and quarantine ward was nothing more than just an isolation ward. About more than half quarantined persons those did not have right information about infection control measurements and they were frustrated, disappointed and anxious about the modes of transmission, prognosis of corona virus and its infection [25]. 90% of respondents were claimed social media create the atmosphere of confusion, fear and frustrated. Particularly, those were mentally disturbed due to low income and in stress about the survival of their family members. Although after 4-months of outbreaks 40-50% of respondents including healthcare staff were not aware about the transmission channels of COVID-19, was how/when there is a need use gloves, mask, sanitizer and other preventive measurements. Hundred percent (100%) quarantined persons wore a mask during their stay in quarantine ward. Twenty-two percent of those quarantined persons claimed that their temperatures was did not being monitor as recommended, 31% respondents self-monitored their temperatures less frequently than recommended, and 1% did not measure their temperatures at all. 70% of respondents blamed that available information was based on propaganda and fake tips.

3.3 Social Media Impact on Psychological Health

The impact of social media on psychological health was identified through six dimensions of psychological general well-being (PGWB) i.e., psychology effect; depression; negative well-being; lack of self-control; general health and vitality. The mean score of psychology effect was 16.4 ± 6.13 , depression 21.4 ± 9.45 , negative well-being 28.1 ± 12.71 , lack of self-control 26.23 ± 10.32 , general health 24.42 ± 11.84 and vitality 26.44 ± 12.44 . The respondents secured the PGWB score ≥ 30 were 72.4% which evidently indicated the presence of psychological disorder (Tab. 2).

Characteristics –		Frequency	Percentage
		(N = 250)	(%)
PGWB Index	< 30	69	27.6
	<u>> 30</u>	181	72.4
		Mean \pm S.D	<i>P</i> -value
Age	20–30 (n = 40)	0.924 ± 0.414	0.0004
	31 - 40 (n = 74)	0.614 ± 0.266	
	41–50 (n = 102)	0.524 ± 0.204	
	50 > (n = 34)	0.500 ± 0.221	
Income status	< 20,000 (n = 82)	16.69 ± 7.569	0.0000
	> 20,000 (n = 168)	14.32 ± 7.174	
No. of days stay in quarantine ward	2(n=5)	2.071 ± 0.912	0.0000
	4 (n = 19)	1.843 ± 0.625	
	6 (n = 27)	1.785 ± 0.845	
	8 (n = 69)	1.435 ± 0.744	
	<u>></u> 10 (n = 130)	1.115 ± 0.653	
Minutes spend on social media daily	< 60 mint	0.903 ± 0.295	0.0000
	61-120 mint	1.924 ± 0.543	
	121-180 mint	0.961 ± 0.395	
	181-240 mint	0.523 ± 0.243	
	<u>></u> 241 mint	0.362 ± 0.195	
Access to television/news	No	6.52 ± 2.542	0.0000
channels	Yes	4.63 ± 1.174	

Table 2: The effect of social media on psychological well-being at quarantine

Note: Table shows only significant variables which P < 0.0000

The findings showed that age of respondents have a significant impact on psychological behavior of quarantined person (means score for the age 20–30 was 0.924 ± 0.414 , 31-40 for 0.614 ± 0.266 , 41-50 for 0.524 ± 0.204 and $50 > 0.500 \pm 0.211$). A combined annual household income of Pak Rs < 20,000 vs. > 20,000 Pak Rs. was significantly associated with psychological index of well-being symptoms (mean score of 16.69 ± 7.56 vs. 14.32 ± 7.174 and p = 0.0000). Neither Gender, marital status nor the educational status were correlated with psychological index of well-being. The duration of quarantine was significantly related to increased psychological index of well-being, mean score of $1.115.0 \pm 0.653$ for those who stayed in quarantine ≥ 10 days compared with 1.435 ± 0.744 for 8 days, 1.785 ± 0.845 for 6 days, 1.843 ± 0.625 for 4 days and 2.071 ± 0.912 for 2 days (p < 0.0000). Persons who were in quarantine ward for a longer duration showed a trend toward higher PWGI index scores. However, time spends on social media also significant impact on psychological health of quarantine patients. Means score was time spend on social media 0.903 ± 0.295 for < 60 mint, 1.924 ± 0.543 for 61-120 mint, 0.961 ± 0.395 for

121–180 mint, 0.523 ± 0.243 for 181–240 mint and 0.362 ± 0.195 for > 241. Use of television was also significant impact on psychological/mental health by mean score of 4.63 ± 1.174 for against 0.62 ± 254 .

All respondents described a sense of isolation. The mandatory forbidding of social and physical contact with family members was identified as particularly difficult. Infection control measures imposed, affected not only the physical discomfort of having to wear a mask but also significantly contributed to the sense of isolation [26]. This study finds that there is a significant impact of social media on their psychological and mental health. The results indicate that the stay in quarantine ward with wrong/incomplete information not just affected the physical health but also affect their mental health. The model is highly significant (p = 0.000) which shows that it can be used to predict the outcome variable.

Variable	Sum of Squares	Df	Mean Square	F	Sig.
Regression	81.46	7	45.208	4.992	0.000
Residual	286.4	241	10.814		
Total	367.8	248			

Table 3: ANOVA^{ab} results

^a Dependent Variable: Psychological index of general well-being (PGWB) ^b Independent Variable: No. of days stayed in quarantined ward, gender, age, marital status, educational status, income, assessment to television and minutes spends on social media.

Tab. 3 shows the empirical findings of analysis of variance (ANOVA) test about the relationship between spreading corona-phobia through social media and psychological general well-being. The result indicates that significance value is below 1% that is showing the model good fit for explaining the relationship that is present between the variables.

4 Discussions

Social media both a blessing and a curse during coronavirus pandemic because fear is protective phenomena into assess the right information and curse with wrong/incomplete information some time without reference. Social media platforms have generally taken an aggressive stance toward countering coronavirus misinformation. Beyond serving as an arena or community forum, experts say social media is actually changing the way society through perceiving and responding to the COVID-19 outbreak. Given the current pandemic, such erroneous beliefs and misinformation among the public could have dire consequences and may be deepening the crisis. Heavy users of social media are also more likely to take a lackadaisical attitude toward the pandemic in general.

In the midst of a public health crisis, it's not necessarily a problem for people to be nervous, so long as that anxiety motivates them to prepare and stay safe, and they don't cross into a full-blown panic. Oftentimes we think that anxiety is a bad thing, but sometimes it's an appropriate response, it means people are paying more attention. A new report from WHO reveals that, not only social media rife with misinformation on COVID-19, but the more time people spend on platforms like Face book, Twitter, the less informed they are on the virus' spread and its prevention [27]. With contradictory information about COVID-19 emerging from the highest levels of government, disinformation experts say it's more important than ever for those with accurate information to be sure they're being heard.

In relation to the recent global outbreak of COVID-19, considerable time is being spent discussing the specifics social media role of quarantine/isolations wards and how to impact on psychological health of quarantine patients [1,3]. The objective of the study was to capture/enlist a range of psychological impact of social media in quarantine patient on their mental health. This information is critical if modern quarantine is to be an effective disease containment strategy. Results show that a substantial used of social media in quarantined ward are distressed, as evidenced by the proportion that displays symptoms of psychological index of well-being as measured by validated scales. Although quarantined persons experienced symptoms suggestive of psychological index of well-being, the scales that were used to measure these symptoms are not sufficient to confirm the diagnoses. To confirm the diagnoses of psychological disorder, structured diagnostic interviews are required.

A score of \geq 30 was used to estimate the prevalence of psychological disorder by social media. While other cutoff points may have been used to estimate the prevalence of psychological index of wellbeing in our population the risk factors that we identified for increased psychological disorder, rather than the absolute prevalence of psychological problem in our study participants, are the important findings of this study. This also applies to the risk factors that we identified for increased depressive symptoms in the respondents [28]. Frequently used of social media applications in quarantined ward with risk factors for either psychological index of well-being or depressive symptoms may benefit from increased support from public health officials.

Psychological index of well-being is an anxiety disorder characterized by avoiding stimuli associated with a traumatic event, experiencing the trauma, and hyper arousal, such as increased vigilance. This disorder may develop after exposure to traumatic events that involve a life-threatening component, and a person's vulnerability to the development of psychological index of well-being can be increased if the trauma is perceived to be a personal assault [29].

This study also noted the trend toward increasing symptoms of both psychological disorder and depression as the combined annual income of the respondent household fell from Pak Rs 20,000. Quarantined persons with a lower combined annual household income may require additional levels of support. A combination of lack of knowledge, an incomplete understanding of the rationale for these measures, and a lack of reinforcement from an overwhelmed public health system were likely the contributors to this problem. Of particular interest, strictly adhering to infection control measures, including wearing masks more frequently than recommended, was associated with increased levels of distress [5]. Whether persons with higher baseline levels of distress were more likely to strictly adhere to infection-control measures or whether adherence to recommended infection control strategies resulted in developing higher levels of distress cannot be clarified without interviewing the respondents. Regardless of the cause, this distress may have been lessened with accurate information (through government source) and continued reinforcement of the rationale for these measures and outreach efforts to optimize coping with the stressful event [28].

4.1 Implications and Recommendations

Healthcare workers deputed in quarantine wards are under high stressful conditions. Their emotional and behavioral responses are naturally resilient in the face of severe (unpredictable and uncertain) tension, and so treatment and psychotherapy focused on the tension-adaptation paradigm may serve as early and timely intervention. Mental health issues of medical workers are also critical for improved pandemic prevention and management. Healthcare staff is typically rotated within the jurisdictions of the state to take care of confirmed or reported cases to improve administrative assistance and to alleviate burden on healthcare workers. In these cases, professional guidance via online and electronic media broadcasting about how to avoid the possibility of viral transmission in professional environment between patients and medical staff is need of the hour which may reduce the burden on the medical workers.

A comprehensive psychological trauma management program should be developed by developing a professional mental health response network to offer educational classes for understanding of psychological effects of traumatic situations to healthcare staff and via telephone psychiatric assistance to address their psychological issues with the specialist mental health team. Hospitals should devise and elaborate programs in term of guarantee food, living resources and to provide pre-duty instructions in quarantine patients, families and their staff themselves to resolve awareness and answers to psychological problems. Psychological consultants should also periodically meet service staff with their catharsis, listen to their experiences and offer encouragement.

To resolve the secondary mental health issues associated with the COVID-19 pandemic, urgent psychological crisis intervention should be developed and applied using the internet technology platform. A range of interventions applied across various health care environments would facilitate early diagnosis, prevention and subsequent recovery in a rapid, seamless and healthy manner. To face these obstacles, epidemiological evidence on mental health effects, clinical effect, medical morbidity and psychosocial

problems with the advent of COVID-19 and their screening, diagnosis, monitoring, recovery plans, supervision, success notes, health status reviews, prevention, and intervention are yet to be addressed. This study marks the tentative introduction of guidelines to include multi-faceted complexities of mental wellbeing and therapeutic action of healthcare staff.

5 Limitation and Future Research

This study has several limitations. The actual number of respondents is low as compared to the total number of persons who were placed into quarantine and therefore may not be representative of the entire group of quarantined persons. The study shows limitations that social media not just affects the psychological health of individuals. Thus, positive impact of social medial is also missing in this debate. However, lack of funding, confidentiality of public health records, and an overloaded public health response system limited sampling in this study. If this study was to be repeated, a study design ensuring a more representative selection of the population which used a combination of quantitative and qualitative methods, including structured diagnostic interviews, would be recommended to overcome these concerns. In the event of future outbreaks, a matched control group of persons who were not quarantined should be considered because it would allow an assessment of the distress experienced by the community at large. We also focused on symptoms of psychological index of well-being because we believe that they would be the most likely to cause illness and interfere with long-term functioning. Future studies should assess effects of social media for other psychological responses, including fear, anger, guilt, and stigmatization. A standardized survey instrument that considers the full spectrum of psychological responses to quarantine should be developed.

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