

# Social Behavior Change Messages for Tackling COVID-19 Pandemic in Oman: A Qualitative Study

Sitwat Usman Langrial<sup>1</sup> and Fannah Al Fannah Al Araimi<sup>2</sup>

<sup>1</sup> Sur University College, Oman  
Dr.Sitwat.Langrial@suc.edu.om

<sup>2</sup> Ministry of Health, Muscat, Oman  
falfannah@gmail.com

**Abstract.** We wanted to investigate the impact of social behavior change messages on population in the wake of COVID-19 in Oman. Four focus group discussions were organized with the residents of Muscat Governate, Oman through videoconference to collect their insights on the impact of social behavior change messages. A number of qualitative themes were also recorded at the end of each focus group. Of the 40 participants, 12 (30%) were females and 28 (70%) were males. From the discussions, we observed a largely positive attitude towards social behavior change messages. Almost all the participants acknowledged the importance and equally positive impact of these (persuasive) messages on transforming behavior change in society. However, it was also pointed out that the nature of a behavioural transformation is such that there is a substantial risk to psychological health. Lack of interaction, for example, led to lower motivation, a sense of losing the meaning of life, and personal suffering. While the participants acknowledged and appreciated the tremendous effort made by the health authorities in persuading the masses on such a large scale using multimodal cues, they did show concern on the extent of longevity of adherence. The findings of this study suggest that although social behavior change messages have been successful in somehow transforming the social behaviors to tackle COVID-19, there is still a need to devise rigorous public health strategies for dealing with mental and psychological health. We argue that implementing a Behaviour Changed Support System can help health authorities in overcoming the said health-related issues.

**Keywords:** COVID-19, persuasion, reminders, adherence, social behavior change, Behaviour Change Support Systems.

## 1 Introduction

The Coronavirus (COVID-19) pandemic has become a health calamity and calls for large scale social behavior change [1, 2]. The nature of the ongoing pandemic is such that it has added a great deal of physical and psychological health [3] burden on people from all walks of society. Over the last few months, COVID-19 has shown devastating effects globally, infecting 23,694,646 of people and killing 814,354 (Wednesday, 26 August 2020). In August 2020, there were 84,652 confirmed cases with 642 deaths and

Copyright © 2021 for this paper by its authors.

Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

79,147 recoveries (Wednesday, 26 August 2020). The pandemic has affected every walk of life and there is a rising number of published work that highlights how COVID-19 has crippled life globally. It has also become an established fact that without a vaccine, there is no stopping to the ongoing pandemic [4]. While there are a number of vaccines that have been approved by the FDA, there is evidence that the spread of COVID-19 can be significantly decelerated by persuading social behavior change and awareness [5]. In response to the emergence of COVID-19, different countries applied varying methods and timespans to somehow limit its spread. For an instance, Taiwan was among the leaders in administering institutional quarantine and demanding the practice of social distancing [6]. However, the United States' government showed reluctance in imposing such measures where social isolation initiatives were taken by individual states by April 2020 [7]. Irrespective of the country, it was generally assumed that people would immediately adhere to the instructions. Despite a vast campaign comprising of sending out persuasive messages (here onwards) social behavior change messages through multimodal cues (electronic, and more traditional), it was observed that people from across the globe were not mentally prepared or even perhaps willing to comply with the recommended precautionary practices [8]. The problematic nature of social distancing is multipronged. Besides other issues, it has proven to result in mass changes in people's worklife [9] and has raised serious concerns about psychological wellbeing [10]. It is therefore easy to observe that while recommended social behavior change messages were designed and delivered to achieve a safer society, there were serious setbacks in terms of what can be safely called as malfunctioning of a healthy routine or normal life.

The severity of COVID-19 was such that it called for extreme measures however the biggest challenge remained to make people comply with social behavior change recommendations advised by the World Health Organization (WHO). Several studies have been conducted in Oman focusing on areas such as Epidemiology of COVID-19 [11], preliminary estimation of the disease [12], mental health of caseworkers [13] and psychological welfare of physicians [13]. However, to the best of our knowledge, no study has addressed the effect of social behavior change messages (behavior change persuasive messages) on peoples' acceptance of the pandemic and adhering with desired behavior changes especially social distancing, wearing masks, and frequent handwashing. We, therefore, decided to conduct a qualitative study with an aim to understand people's perceptions and experiences on the effect of social behavior change messages promoting social distancing, use of masks, personal hygiene, Frequent Handwash and remaining in self-isolation. In this short paper, we examined the impact of social behavior change messages on people in adhering to public health recommendations and coping with stress.. The nature and content of the messages are designed so as to persuade people to follow the recommendations made by the relevant authorities in Oman. We are in the midst of an unprecedented era where social isolation, infection fear, boredom, abundant yet mostly fake information, financial loss, and stigma have affected almost everyone [14].

While social behavior change messages (persuasive appeals) are still being sent out, this study highlights some important qualitative outcomes. A total of forty (n=40) COVID-19 recovered patients took part in focus group discussions. These discussions

were held through videoconferencing tools. We focused on three major issues: 1) Participants' opinion on social behavior change messages, 2) Participants' views on tools used for communicating these messages, and 3) Participants' experiences with social distancing and isolation. We, therefore, expect to make knowledge contribution with regard to the aforesaid issues that could be used to gain a richer insight for shaping up future public health policies when it comes to designing effective persuasive campaigns pertaining to similar outbreaks.

## 2 Methods

We conducted four online focus group discussions with a total of 40 participants between August 10th and August 18th, 2020. All participants were adults and Omani citizens. Online focus groups are generally well accepted when collecting public opinion relating to health issues especially from the geographically dispersed populations [15]. However, during the current pandemic, this was the optimal data collection approach. We also opted for purposive sampling to reach a diverse range of age, gender, and social background among the participants. Recruitment was also done online through a mix of social media tools. The questions in the focus groups asked for participants' opinion on the efforts made by the health authorities, the content of the social behavior change messages and the effect of those messages.

**Table 1:** Demographics of participants

Demographic Characteristics	N
Female	12
Male	28
Age (18-24)	8
Age (25-34)	11
Age (35-44)	19
Age (45+)	2
Omani Nationals	40
Expatriates	0
Senior Managers	2
Administrative Staff	10
Healthcare Professionals	7
Students	8
Others	13

As the focus group discussions were conducted online, each group had 10 participants. Each discussion lasted for roughly 90 minutes. 38 participants took part in the discussion using both audio/video options while 2 (females) did not utilize the video option (for cultural reasons). The moderator was the first author. Upon completion of the focus group discussions, data analysis was performed iteratively so that we could

identify emerging themes. As the discussions were recorded, both the authors analysed the transcripts individually and later together through video conferencing. We also applied negative case analysis [16] to identify any information that was not related to an emerging theme. We continued analysing the data until we reached the saturation point. This approach is recommended by qualitative researchers [17].

### **3 Results**

Data analysis revealed three major themes: 1) Appreciation for government's efforts for spreading COVID-19 awareness through social behavior change messages, 2) Need for counselling targeting psychological health, and 3) Fear that not everyone was following social distancing (lack of adherence). We also noted some sub-themes that will be discussed below:

#### **3.1 Appreciation for government's efforts for spreading COVID-19 awareness through social behavior change messages**

All participants appreciated the commitment of the concerned authorities to launch such a massive persuasive campaign by sending out social behavior change messages. All participants felt that the messages and repetitive reminders had a noteworthy impact on how people gradually started taking COVID-19 seriously and hence the sub-theme was social behavior change. One of the participants termed this as a "shift in people's attitudes towards social distancing" (Female, Age 26). This was however followed by a discussion that revealed a general sense of emotional distress as a consequence of lack of social life. Participants spoke about how they were "taking it easy" (Male, Age 23) in the beginning. However, as time passed and a serious spike in COVID-19 cases occurred, people started becoming fearful of not knowing how to tackle the situation. The swiftness of the authorities in initiating a nation-wide campaign sharing information as well as precautionary measures "was helpful" (Male, Age 26). Even when the lockdowns were being planned, the government ensured that people knew about the upcoming lockdowns or movement bans. "I believe that our government authorities have shown a great deal of care by advising us about such measures beforehand" (Female, Age 35). Another participant expressed appreciation for how the number of cases (Active, Recovered, Deceased) in different governorates was announced through social and electronic media.

#### **3.2 Need for counselling targeting psychological health**

All participants expressed their concern about growing psychological stress. It was observed that a sudden change in social norms and behaviors brought with it stress, anxiety, and depression. One participant, in other words, highlighted the need for "enhanced mental health support", which we highlight as second sub-theme. All participants believed that staying at home with no social life was causing negative psychological effects on people from all age groups. "The pandemic with subsequent social restrictions

has made people suffer financially, socially, and mentally” (Male, Age 32). The way people had to change their lifestyle in just a matter of days has caused “a great deal of distress” (Male, Age 37). A number of participants shared their views about anxiety and depression as they were confined to the boundaries of their homes. Others added that losing jobs within a short period has left many people in acute financial distress. And those who were left with jobs had to shift their daily routines that brought yet another “challenge of managing a new routine” (Male, Age 38). Generally, participants shared their views and experiences about psychological and mental health in the context of social isolation, an almost complete halt of social life, a sense of fear, financial stress, and changed routines. Many of the participants felt that they needed psychological help.

### **3.3 Fear that not everyone is following social distancing**

All participants stated that they were following the instructions and guidelines especially social distancing and will continue to do so even when “things become better” (Female, Age 21). Relating their higher level of civil consciousness to the government’s efforts in persuading people, they added that this was not only about an individual but “other member of the society” (Female, Age 35). All participants expressed their concerns about incidents where people would not adhere to the guidelines. Some participants reported noticing social gatherings in recent times which is “just unbelievable” (Male, Age 29). All participants agreed that such actions represent ignorance, arrogance, and sheer carelessness.

## **4 Discussion**

Findings from this qualitative study indicates that people in Oman are largely satisfied with the efforts being made by the health authorities in persuading people to take precautionary measures against the threat of COVID-19 especially through a massive social behavior change messaging campaign. It can be noted from the discussions that there is a positive impact of persuasion and reminders on the population. We find it interesting to observe that even coercive reminders were appreciated by the participants. The findings also reveal that there is a general sense of anxiety, stress, and depression among people resulting from quarantines, lockdowns, financial stress, and social isolation. From the discussions, it was noted that almost all the participants were experiencing anxiety and were thinking of seeking psychological help. The discussions further revealed that the negative psychological impact of the ongoing pandemic was based on multiple factors including but not limited to lack of social life, joblessness, changed lifestyles, and a general sense of losing freedom. The findings from this study also indicate that people were satisfied with the information shared by the government and health authorities and do not find any ambiguities of how they are required to act to deal with the pandemic. A consensus was noticed about a very high majority of people following and adhering to the health guidelines with an exception of some incidents where participants had observed people not maintaining social distancing. Of course, participants shared extreme disregard for such behaviors. We cautiously suggest that

the greatest concern that is revealed from this study is about people's mental and psychological health and how people cope with a high level of stress, anxiety, and depression, should the pandemic continue to grow for even longer period. The findings of this study make significant contributions to the available literature on persuasion and behavior change, especially in the COVID-19 context. Several of our findings are in line with existing literature on the social needs of society and the adverse effects of social isolation [18]. For example, it was noticed that isolation, joblessness, sense of fear, extended lockdowns led to anxiety and depression [19]. However, we did notice a contrast to some studies [14], where participants showed complete confidence in the measures taken by the government and social behavior change messages with positive social behavior change. Like any research work, this study has its limitations. First, the possibility of biased responses [20] because of social desirability cannot be ruled out, which can be a case in any focus group discussion. Second, none of the participants was above the age of 50 or had reported suffering from COVID-19, which means we could not record the experiences of such participants.

## 5 Conclusion

The findings of this study suggest that although social behavior change messages have brought a significant behavior change in Oman, there is still a need to devise rigorous public health policies with a special focus on mental and psychological health. As the world is now going through the so-called third wave of COVID-19, perhaps it is time to develop and introduce a Behavior Change Support System [21] that would help people cope with psychological stress and be engaging enough to sustain higher adherence among the users.

**Acknowledgements.** We would like to thank all the participants for their participation and feedback.

## References

1. Holmes EA, O'Connor RC, Perry VH, Tracey I, Wessely S, Arseneault L, Ballard C, Christensen H, Silver RC, Everall I, Ford T. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet Psychiatry*. 2020 Apr 15.
2. Van Bavel JJ, Baicker K, Boggio PS, Capraro V, Cichocka A, Cikara M, Crockett MJ, Crum AJ, Douglas KM, Druckman JN, Drury J. Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*. 2020 Apr 30:1-2.
3. Galea S, Merchant RM, Lurie N. The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA internal medicine*. 2020 Jun 1;180(6):817-8.
4. Clark A, Jit M, Warren-Gash C, Guthrie B, Wang HH, Mercer SW, Sanderson C, McKee M, Troeger C, Ong KL, Checchi F. Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: a modelling study. *The Lancet Global Health*. 2020 Aug 1;8(8):e1003-17.

- 46            Ninth International Workshop on Behavior Change Support Systems (BCSS 2021):  
                  *Social Behavior Change Messages for Tackling COVID-19 Pandemic in Oman*
5. Dryhurst S, Schneider CR, Kerr J, Freeman AL, Recchia G, Van Der Bles AM, Spiegelhalter D, van der Linden S. Risk perceptions of COVID-19 around the world. *Journal of Risk Research*. 2020 May 5:1-3.
  6. Beech H, Rubin AJ, Kurmanaev A, Maclean R. The Covid-19 Riddle: Why Does the Virus Wallop Some Places and Spare Others?. *New York Times*. 2020 May;3.
  7. Mervosh S, Lu D, Swales V. See which states and cities have told residents to stay at home. *New York Times*. 2020 Apr 20.
  8. Lunn PD, Belton CA, Lavin C, McGowan FP, Timmons S, Robertson DA. Using Behavioral Science to help fight the Coronavirus. *Journal of Behavioral Public Administration*. 2020 Mar 29;3(1).
  9. Coibion O, Gorodnichenko Y, Weber M. Labor markets during the covid-19 crisis: A preliminary view. *National Bureau of Economic Research*; 2020 Apr 16.
  10. Kawohl W, Nordt C. COVID-19, unemployment, and suicide. *The Lancet Psychiatry*. 2020 May 1;7(5):389-90.
  11. Khamis F, Al Rashidi B, Al-Zakwani I, Al Wahaibi AH, Al Awaidy ST. Epidemiology of COVID-19 infection in Oman: analysis of the first 1304 cases. *Oman Medical Journal*. 2020 May;35(3):e141.
  12. Zhuang Z, Zhao S, Lin Q, Cao P, Lou Y, Yang L, He D. Preliminary estimation of the novel coronavirus disease (COVID-19) cases in Iran: A reply to Sharifi. *International Journal of Infectious Diseases*. 2020 Jun;95:429.
  13. Badahdah A, Khamis F, Al Mahyijari N, Al Balushi M, Al Hatmi H, Al Salmi I, Albulushi Z, Al Noomani J. The mental health of health care workers in Oman during the COVID-19 pandemic. *International Journal of Social Psychiatry*. 2020 Jul 8:0020764020939596.
  14. Williams SN, Armitage CJ, Tampe T, Dienes K. Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study. *MedRxiv*. 2020 Jan 1.
  15. Tates K, Zwaanswijk M, Otten R, van Dulmen S, Hoogerbrugge PM, Kamps WA, Bensing JM. Online focus groups as a tool to collect data in hard-to-include populations: examples from paediatric oncology. *BMC Medical Research Methodology*. 2009 Dec 1;9(1):15.
  16. Carey MA. Comment: Concerns in the analysis of focus group data. *Qualitative health research*. 1995 Nov;5(4):487-95.
  17. Mays N, Pope C. Qualitative research: rigour and qualitative research. *Bmj*. 1995 Jul 8;311(6997):109-12.
  18. Webster RK, Brooks SK, Smith LE, Woodland L, Wessely S, Rubin GJ. How to improve adherence with quarantine: Rapid review of the evidence. *Public Health*. 2020 Mar 30.
  19. Teasdale E, Santer M, Geraghty AW, Little P, Yardley L. Public perceptions of non-pharmaceutical interventions for reducing transmission of respiratory infection: systematic review and synthesis of qualitative studies. *BMC Public Health*. 2014 Dec 1;14(1):589.
  20. Wong LP. Focus group discussion: a tool for health and medical research. *Singapore Med J*. 2008 Mar 1;49(3):256-60.
  21. van Gemert-Pijnen, J., Reitberger, W., Langrial, S., Ploderer, B., & Oinas-Kukkonen, H. (2013). Expanding the research area of behavior change support systems. In *Adjunct Proceedings of the 8th International Conference on Persuasive Technology, Persuasive-2013 [CEUR Workshop Proceedings, Volume, 973]* (pp. 1-6). Sun SITE Central Europe.