SHORT COMMUNICATION

Covid-19 related isolation and risk of post-traumatic stress disorder in patients presenting to tele-clinics at a private tertiary care hospital in Karachi

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Abstract

The objective of this study was to assess the psychological impact of isolation on individuals with Covid-19 and determine the experiences of people in isolation.

All adults with Covid-19 who reported to the infectious disease tele-clinic were included in the study; participants were sent the survey form via email. The email was sent to 146 people and 47 responses were received. IES-R questionnaire was submitted to all individuals on Day 7 of quarantine, along with a qualitative questionnaire.

The mean score on IES-R for all the respondents was 18.77. Out of 47 participants, for 6 (12.8%) PTSD was a clinical concern, 3 (6.4%) participants had a probable diagnosis of PTSD, and 6 (12.8%) participants scored high enough to suppress immune function.

The majority of participants reported stress due to confinement in an isolated space and interruption in daily routine, specifically work-related routine. Praying, meditation, and having social support helped the participants cope with the isolation.

Keywords: Stress Disorders, Post-Traumatic, Covid-19, Social Isolation, Mental Health.

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Introduction

The Covid-19 pandemic had immense physical, psychological, and financial effects on individuals. A study conducted in the United Kingdom showed a modest increase in mental health problems, including anxiety, depression, and symptoms of trauma.[1] In a study regarding Covid-19 related stress in Bangladeshi adults, 85.60% of the participants reported Covid-19 related stresses.[2] A survey conducted among the general population in India during the Covid-19 pandemic home quarantine observed the prevalence of Post Traumatic Stress Disorder (PTSD) and depression to be 28.2% and 14.1%, respectively.[3]

Furthermore, people who had been infected or exposed were initially expected to self-isolate for 14 days at home or in the hospital, which later evolved into shorter periods. According to a study assessing psychiatric symptoms amongst university students in isolation during the Covid-19 pandemic in China, 67.05% reported traumatic stress, 46.55% reported symptoms of depression, and 34.73% reported anxiety symptoms.[4]

Pakistan reported its first case of Covid-19 in February 2020 in Karachi, and by 2nd November 2023, the total tally of cases had gone up to 1,580,631, with 30,656 deaths.[5] During this time, the country had multiple lockdowns of varying durations and strictness of restrictions, with significant economic losses and a rise in poverty levels being predicted.

This study attempts to understand the psychological impact of isolation on an individual living in Karachi, a multicultural city of more than 25 million people, in the background of the existing stressors.

Methods and Results

A cross-sectional study was conducted, after approval from the institute's Ethics Review Committee. All adults with Covid-19 (diagnosed by RT-PCR) presenting to the Infectious Disease tele-clinics at the Aga Khan University Hospital, Karachi (AKUH), from May to August 2020, were included.

Patients were sent a consent form, a qualitative questionnaire, and Impact of Events Scale-Revised (IES-R)[6], via email, after their quarantine had ended. IES-R scale is a commonly used, self-report scale within the trauma literature and is considered a screening tool for PTSD. It has 22 questions, with three subscales, including Intrusion (8 items), Avoidance (8 items), and Hyperarousal (6 items). The items are scored as follows: 0 (not at all), 1 (a little bit), 2 (moderately), 3 (quite a bit), and 4 (extremely), leading to a score range between 0 and 88. A score of 24-32 shows mild risk, 33 to 37 shows a moderate risk, while

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above 37 shows high risk for PTSD.

A qualitative questionnaire that comprised three open-ended questions was also sent; the question were:

1. Can you describe your experience while in isolation due to Covid-19?

2. What were the challenges you faced in isolation?

3. What helped you cope with these challenges?

A total of 47 responses were received, while emails were sent to 146 people. The mean age of the respondents was 32.8 years (Table 1). The gender distribution was balanced, with 22 (46.8%) males and 25 (53.2%) females. Out of the 47 participants, 29 (61.7%) were healthcare workers. The majority, i.e. 41 (87.2%), had been isolated at home , while 4 had been isolated in a hostel or a dedicated isolation facility, and 2 at the hospital (Table 1).

Most, i.e. 32 (68.1%), had symptomatic Covid-19, out of which 2 (4.3%) needed hospitalisation. None of the participants required admission to the Intensive Care Unit. Of the 47, 15 (31.9%) participants reported having others in isolation with them.

The mean score on IES-R for all the respondents was 18.77

Table-1: Demographics.

Variables	Frequency	Percentages
Gender		
Male	22	46.8
Female	25	53.2
Age (years)		
21-30 years	22	46.8
31-40 years	17	36.2
41-50 years	7	14.9
51-60 years	1	2.1
Are you a healthcare worker?		
Yes	29	61.7
No	18	38.3
Did you isolate in:		
Hospital	2	4.3
Home	41	87.2
Hostel/ Dedicated facility	4	8.5
Did you have any symptoms?		
Yes	32	68.1
No	15	31.9
Did you have to stay in the ICU?		
Yes	-	-
No	47	100
Time since Isolation Ended?		
Less than 1 week ago	2	4.3
1-2 weeks ago	16	34
3-4 weeks ago	13	27.7
5-6 weeks ago	16	34
If you stayed in isolation at home, did you have a separate room and bathroom?		
Yes	36	76.6
No	11	23.4
Were there others in isolation with you?		
Yes	15	31.9
No	32	68.1
Did you leave the room?		
Yes	20	42.6
Never	21	44.7
Total Score – IESR (Grouped)		
1. No PTSD	32	68.1
2. Mild Risk of PTSD	6	12.8
3. Moderate Risk	3	6.4
4. Severe Risk	6	12.8
Total Score – IESR (Grouped)		
No PTSD	32	68.1
With PTSD	15	31.9

Table-2: Relationship of IES-R with demographic characteristics.

Variables	IES-R Total Score (n=47)		
	No PTSD	With PTSD	*P* Value
Gender			
Male	17	5	0.205
Female	15	10	
Age			
21-30 years	14	8	0.658
31-40 years	13	4	
41-50 years	4	3	
51-60 years	1	-	
Are you a health care worker?			
Yes	21	8	0.419
No	11	7	
Did you isolate in hospital?			
Yes	-	2	0.035
No	32	13	
Did you have any symptoms?			0.23
Yes	20	12	
No	12	3	
Time since isolation ended			
Less than 1 week ago	1	1	0.495
1-2 weeks ago	10	6	
3-4 weeks ago	11	2	
5-6 weeks ago	10	6	
If you stayed in isolation at home, did you have a separate room and bathroom?			
Yes	25	11	0.718
No	7	4	
Were there others in isolation with you?			
Yes	7	8	0.031
No	25	7	
Did you leave the room? N=41			
Yes	14	6	0.585
Never	13	8	

IES-R Impact of Events Scale-Revised

±13.546. Out of the 47 participants, 32 (68.1%) reported no symptoms of Post-Traumatic Stress Disorder. Of the remaining 15 participants, 6 (12.8%) met the criteria for mild risk, 3 (6.4%) participants met the criteria for moderate risk, and 6 (12.8%) participants met the criteria for severe risk of PTSD.

A significant association was observed between the IES-R scores in people whose symptoms had led to hospitalisation and the risk of PTSD (P= 0.035). Similarly having other people in isolation was significantly associated with the risk of PTSD (P= 0.031). No other significant associations were noted (Table 2). People with symptoms had overall higher IES-R scores but not when compared to a score of above 23.

Participants reported feelings of loneliness, confinement, and separation while in isolation.

"*I felt cut off and lonely after a week," and stressed out*," said one participant.

Many reported experiencing exhaustion, stress, and extreme worries about their own, as well as their family's well-being.

"*There was a lot of mental pressure as my spouse was not well.*"

"*Initially I was a little bit scared because I had fever, cough and fatigue. I was alone and in a separate room." and "it was totally exhausting, I felt like a prisoner."*

Commonly faced challenges in isolation, included missing family members, not getting to spend time with them, and worrying about the family's health and safety."

"*I was completely dependent on others. Our food was being provided by relatives. I was missing my kids.*"

"*My youngest son wanted me to be there outside, hug him, play with him and spend time with him which I could not do."*

"This was the first time in my life that I was not able to be with my two boys. The elder son eventually developed sad mood and lack of sleep."

"Thoughts of contamination were dominant; "*my mother used to clean the surfaces which I had touched outside my room with sodium hypochlorite."*

Many participants reported having difficulties managing their work as some were asked to work from home during isolation or were worried about work piling up due to their absence:

"*My institution constantly kept pushing me to continue tele clinics, department wanted me to participate in admin meetings and assign tasks to subordinates*."

"*I did feel like I was missing out on work, so I tried attending online meetings as much as possible*."

Finally, the attitude of other people regarding their Covid positive status was another challenge:

"In our society, people were stigmatising you as Covid-19 patient. Even after you had recovered, no one would talk to you or even cross your house. Therefore, my family had decided not to tell anyone."

"The only stress was the attitude of people in our society which created a lot of trouble."

"Another challenge was the stigma around the disease. It was difficult to let family and friends know that we were positive."

Recurring themes in the participants' responses, when asked regarding how they coped during quarantine, were family support, religious activities, and meditation. Daily routine and social media were mentioned frequently as a way to deal with the isolation.

Conclusion

Extended periods in isolation can have numerous detrimental effects on a person's psychological well-being and functionality. In this study, it was observed that approximately one-third of the participants screened positive for risk of PTSD with six at high risk.

Another finding was that people with symptomatic Covid-19 infection showed higher scores on the IES-R scales versus people who had asymptomatic Covid-19 infection, though the difference was not significant if compared to scores above 23. Common reasons described by participants were feelings of loneliness, worries about themselves and family members, dependency on others, and inability to have physical contact with young children. Similarly, having to fulfil work responsibilities and face the stigma of disease were the stressors.

These findings help us realise the importance of psychoeducation of people about illnesses that require isolation. It highlights the dangers of stigma. Systems that encourage support to people in isolation through friends, families, and health care systems are needed, and mental health screening should be part of basic interventions.

Limitations: The study was limited as sample size was not calculated, and there was a relatively low response rate, making it difficult to generalize findings.

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Author's Contributions

SFM and TN: Study design, participant selection, editing and final approval.
SN: Literature review, writing, data analysis and final approval.
MA: Literature review, writing, editing and final approval.
AA: Literature review and writing.
NA: Final approval.