

Original Research Article

Immediate psychological impacts on the inmates of a quarantine-isolation facility in North Kashmir: a pilot study

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Received: 22 July 2020

Accepted: 30 July 2020

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ABSTRACT

Background: During the current COVID-19 pandemic as part of various control measures quarantine-isolation facilities have been setup throughout India. To the best of our knowledge no study has been done so far on the mental health aspects of the inmates from Kashmir region.

Methods: This was a questionnaire based qualitative cross sectional pilot study. A cohort of 301 inmates (196 males and 105 females) consented and completed the study questionnaire from March 2020 to June, 2020. The relevant data was statistically analyzed.

Results: Short lived negative impacts were seen in a sizeable number of patients. These negative correlates of mental health remained manageable as we followed the guidelines of MOHFW. Only a small percentage of ~ 4% (11 of 301) inmates needed psychiatric consultation and treatment. However they safely completed their mandatory stay period in the facility.

Conclusions: Based on the results of our study, we conclude that optimum medical care during the pandemic remains the main focus and rightly so, but nevertheless mental health domain needs to be equally strengthened at the facilities in particular for short term impacts and the community in general for long term impacts.

Keywords: Coronavirus, Impacts, Isolation, Kashmir, Pandemic, Quarantine

INTRODUCTION

The Corona virus disease (COVID-19) is caused by a novel beta coronavirus strain, designated as Severe Acute Respiratory Syndrome (SARS-CoV-2).¹ In Dec 2019 this virus caused upper and lower respiratory tract infection (Pneumonia) in Wuhan, a city in the Hubei province of China.² It spread rapidly and caused an epidemic in China. Steadily it encircled new territories all over the world.

On 30th Jan 2020 WHO declared COVID-19 an international public health emergency.³ Every continent was affected excepting Antarctica. In March 2020 WHO

based on the available inputs declared COVID-19 as a pandemic.

As per WHO globally as of, 11th July 2020; there were 12,322,395 confirmed cases of COVID-19 and 556,335 deaths. Exponential rise in number of cases continues and mortality figures remain alarming.

Pandemic situations primarily remain a 'medical phenomenon'. Disease diagnosis, treatment, control and preventive measures like social distancing, quarantine and isolation, hold the center stage for administrators and medical professionals. However for the public: anxious thoughts, panic, mass hysteria, Xenophobia, stigma are

the common denominators of psychological impacts contributing to various short and long term mental health issues leading to 'social dysfunction' and poor quality of life.⁴⁻⁶

Recent literature cites that online and facility specific services were initiated in China which to some extent reduced the sufferings. The lack of training and sensitization amongst the medicos towards the mental health issues adversely affects their performance and jeopardizes mental health outcomes.⁷

It is essential to bear in mind that; anxiety, panic and mass hysteria due to uncertainty associated with the COVID-19 disease can be more damaging than the virus itself. Early identification of distress and timely psychological interventions can prevent crisis at the time of pandemic and play an important role in containing its spread.⁸

There is growing evidence for giving credence to the psychological issues which are a key determinant of mental health of the inmates in quarantine-isolation facilities. Such consideration has been shown to improve the efficacy and overall health care service utilization in a similar earlier outbreaks like SARS.⁹

Thus, while all people put in quarantine-isolation may not necessarily report these signs, it is likely that some may. These facts prompted us to plan this study so that we characterize and categorize our patient population in the dedicated quarantine-isolation facility for short and long term psychological impacts and their correlates by trying to validate various psychological and administrative interventions which may moderate and buffer these psychological impacts.

METHODS

This study was conducted at the Government facility for quarantine-isolation purpose located at the District head quarter town of Baramulla in JK-Union Territory, India between March to June 2020.

The quarantine facility comprises of four hostel buildings, two each for asymptomatic male and female inmates, accommodating upto 200 inmates. This Cohort comprised of clinical suspects, secondary contacts, travellers and immigrants. The isolation facility designated as 'COVID Care Centre' is a newly built indoor sports stadium capable of accommodating upto 120 inmates. Mandate is to manage stable COVID-19 Positive patients here, whether they are asymptomatic or with mild to moderate symptoms (including need for low flow oxygen via nasal canula); whereas non responding patients unable to maintain their oxygen saturation >94% on oxygen support and any other patient with clinical deterioration would be referred to the Covid designated hospitals in the summer capital city of Srinagar, India.

The Associated Hospital of Government Medical College is entrusted with the responsibility of delivering medical care, and supplies like medicines, food, water, personal toiletries and taking care of 24×7 electricity supply along with cleanliness at these facilities. In view of the prevailing emergent situation because of the COVID pandemic provisional approval for collecting questionnaire data for this study was obtained from the medical superintendent of the associated hospital.

A study specific clinical interaction with each of the willing inmates was carried out by the clinical psychologist and the physician specialist on day 7 of the stay. The relevant data was recorded. Total of 36 inmates refused to be a part of the study. Proper donning and doffing steps (PPE) were followed by the staff involved in the interactions. During the duration of the interview which was conducted in a well-ventilated room, the participants wore disposable gowns, masks and gloves. Standard operating procedure for biomedical waste disposal was followed.

As part of this study a questionnaire based cross sectional qualitative survey was done. The questionnaire had two parts; Part A comprised of demographic variables and Part B comprised of questions pertaining to mental health issues and their correlates. A proper written consent was taken from the participants and reassurance given regarding safeguarding their identity. Each inmate was given around 20 minutes to read, analyze and mark responses. No incentive in any form was given to complete the questionnaire. Subsequently (n=301) filled questionnaires with responses were collected, data was entered into an Excel sheet and subjected to statistical analysis. We excluded any inmate with any known previous psychiatric illness, children below twelve years of age, COVID-19 negative inmates leaving the facility before a weeks time, and sick patients referred out to higher centres.

As part of the study we propose to follow the patients after their discharge from the facility by mobile phone calls to keep track of any long term psychological impacts. The study will help to validate our questionnaire for future.

RESULTS

Of the 301 participants who consented to be part of the study, the sex distribution was 196 males and 105 females. The age of the inmates ranged from 15-82 years. The rural-urban distribution of the cohort was 206 rural and 95 urban participants. The age specific distribution of the participants was: 46 in the 15-20 yrs age group, 195 in the 21-40 yrs age group, 50 in the 41-60 yrs age group and 10 in the >60 yrs age group. No mortality occurred in the facilities during the study period. 36 inmates declined to be a part of the study. The overall assessment is depicted in the Figure 1.

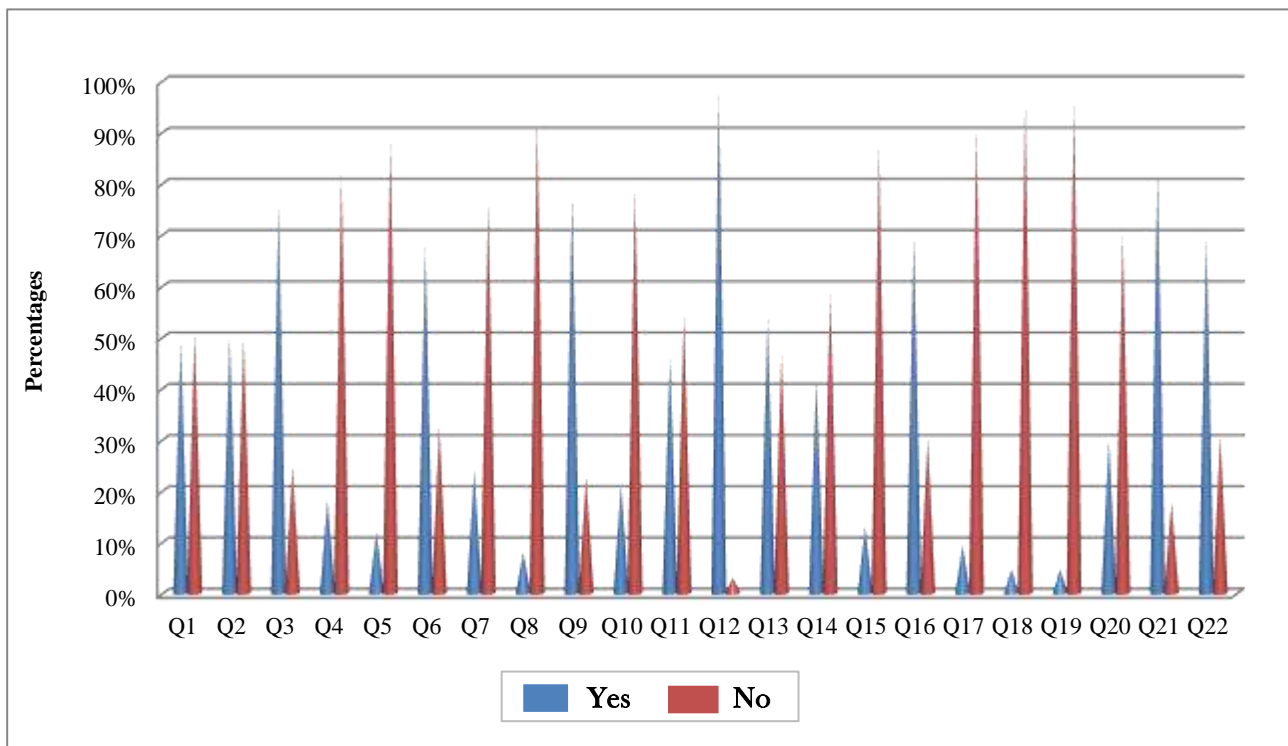


Figure 1: Overall assessment.

The various parameters pertaining to the psychological impacts on the inmates in the facilities are extrapolated as questions in the questionnaire and a statistical correlation is depicted in Annexure.

DISCUSSION

The leading inference from the qualitative questionnaire data and interview of the inmates in our quarantine-isolation facility was that, around 73% (221 of 301) were worried about their own health and the health of their loved ones.¹⁰⁻¹²

Around 25% inmates (74 of 301) were not concerned about this issue. Further analysis revealed that these unconcerned ones were mainly children, some females and many middle aged inmates who were without any comorbidity. A few unconcerned inmates were the ones who had their full family within the facility.

The survey data suggested that short lived anxiety and mild panic features were observed in nearly 50% inmates at admission. Mainly, pandemic related anxious thoughts regarding its duration and future course were present in 49% (148 of 301) inmates, whereas 51 % (153 of 301) were feeling distracted too often.¹²⁻¹⁴ However these parameters stabilized over a week. Clinical psychologists interaction and reassurance moved them towards normalcy. A prominent finding was that 24% (71 of 301) inmates experienced noticeable changes in mental health during their stay in the facility, which were absent prior to admission in the facility. They needed psychological

counselling twice a week and showed gradual but distinct improvement. On the recommendations of the psychologist eleven patients received additional psychiatric consultation. Recurring thoughts of their future, in case of a positive repeat Covid test always remained a stressor. Thoughts regarding the potential social stigma awaiting them after discharge from the facility was no less a stressor.¹⁵⁻¹⁸

Around 41% inmates (123 of 301) followed COVID-19 related issues on the internet. Curiosity to remain abreast with information about the current pandemic status was palpable in these inmates. Children, females and most elderlies were not eager for such internet searches. However remained privy to many discussions of their net savvy fellow inmates. During interactions, the medical staff gave them the leads to look for information from authentic sources.¹⁹ Like World Health Organization (WHO) and Centre for Disease Control (CDC) so as to curb the menace of 'misinfodemics'.^{10,11,20,21}

Despite being in a pandemic 83% (251 of 301) inmates had definite control on their thoughts and emotions reflecting emotional stability and apt coping to stressors.²² Among the inmates 70% (210 of 301) felt that they were focused on and talked about in the society. We felt that this was part of genuine concern of their relatives and friends and not as any perceived delusional index.

It was reassuring that some psychological symptoms of anxiety were negative in the inmates. 87% (262 of 301) of patients confirmed that they did not get any abnormal feelings like itching under skin or insect crawling

sensation. Whereas 94% (284 of 301) did not observe seeing any phenomenon like geometrical figures, flares etc. 93% (280 of 301) did not get startled by any distant sound. No patient reported to the staff with an acute psychotic reaction during the study period. These figures are at variance with the study of case series by Finatti et al.²³

A reassuring observation was that 82% (246 of 301) of the inmates had normal sleep pattern. This was in conflict with the common belief that COVID-19 disturbed sleep as inmates were away from home environs.^{15,24} Some 18% (55 of 301) may have been disturbed by financial losses and job insecurity leading to insomnia.^{10,25}

Eating patterns were not affected in 88% (265 of 301) inmates. Even COVID-19 positive patients in isolation facility had normal appetite. This is not in consonance with recent study published in American Journal of Gastroenterology.²⁶ Our figures of normal appetite are at variance with the CDC guidelines categorizing loss of smell and taste along with anorexia as additional symptoms in the Covid symptomatology list.²⁶⁻²⁸ Possibly our patients had a milder disease and were mostly asymptomatic.

Parenting duties were compromised for around 67% inmates (202 of 301) as they were away from their children in the facilities created for control of Covid 19 pandemic.²⁹ For 33% of inmates (99 of 301) this was not the case either because the children were also positive and in the same isolation facility or in quarantine facility as secondary contacts. Some had a joint family back home and this issue was diluted as grandparents or uncles and aunts took good care. The social support factor of joint family system proved helpful.

Despite being in quarantine- isolation facility 91 % inmates (273 of 301) felt they were adequately supported by family and friends. Once a week, one person from the family visited one quarantined inmate for 10 mins observing full precautionary measures. Provision of home cooked food once a week, 24 X 7 electricity with mobile charging facilities acted as a booster for social connectivity thereby reducing boredom and improving communication.^{30,31,12,32} Regarding the facilities provided at quarantine centers and isolation facility, 75% inmates (227 of 301) were satisfied and believed that the authorities were sensitive to their needs. This isolation facility in our view is one among the best at national level because it is closest to the recommendation of Ministry of Health and Family Welfare (MOHFW).³³

It was comforting to find that 79 % inmates (238 of 301) did not feel an urge for increased smoking or using any drug.³⁴ About 45% patients (135 of 301) had a feeling of being lonely and bored, despite the facilities provided and concessions regarding social support. Major chunk of the affected were travellers (students, laborers, private employees) who landed alone in the quarantine-isolation

facility.^{11,35,36} A positive aspect being that no one showed a progression towards a properly categorized symptom complex. Counseling by clinical psychologists gradually helped them come out.

Around 94% inmates (284 of 301) felt that offering prayers (Namaaz) boosted their spiritual strength and enhanced their stress coping ability.^{37,38} Some elders among the inmates, took a lead and counseled the new arrivals and many youngsters on the importance of routine prayers and some special religious recitations (Duaa's) to tide over adversity and enhance resilience.³⁹ For the willing inmates even yoga sessions were conducted on few occasions.^{40,41}

As part of relaxation 52% inmates (157 of 301) listened to music on mobile phones, both recreational i.e. songs and light music and some spiritual themes like quawalis and naats etc. The inmates derived solace from them.⁴²

CONCLUSION

We observed that the inmates during their stay at the quarantine-isolation facility displayed an altruistic commitment to 'physical' distancing coupled with an 'emotional' bonding. At the time of admission a sizeable number of inmates had features suggestive of short lived negative psychological impacts which improved with progressive stay period at the facility. Reassurances, counseling sessions and facilities provided at the quarantine –isolation centers had a moderating influence towards a speedy recovery. Overall around 4% (11 of 301) inmates had certain mental health concerns which cropped up during the stay period needing psychiatric consultation and treatment till the safe completion of their mandated stay period.

ACKNOWLEDGEMENTS

Authors would like to thank the district administration, and hospital authorities for their support. The questionnaire based survey data was collected by authors 1 and 2 after authorization by the medical superintendent.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Rashid S, Singh C, Masood S, Khan W. Immediate psychological impacts on the inmates of a quarantine-isolation facility in North Kashmir: a pilot study. *Int J Res Med Sci* 2020;8:3212-8.

ANNEXURE

Legend
Q1. Do you keep thinking for how long the pandemic will last and what will happen in future
Q2. Do you feel you get distracted easily now, than before the COVID-19 pandemic
Q3. Do You Fear and worry about your own health and the health of your loved ones
Q4. Do you feel difficulty in sleeping or concentrating
Q5. Have you observed any changes in eating patterns
Q6. Do you feel guilty about not being able to carry parenting duties due to quarantine
Q7. Have you experienced any emotional or mental health changes in yourself
Q8. Do you feel you are inadequately supported by family or friends
Q9. Do you feel Authorities are sensitive to your needs vis-à-vis facilities in the Quarantine
Q10. Have you observed increased smoking or need of any other drug
Q11. Do you feel lonely & bored
Q12. Do you believe your level of stress decreases by prayers
Q13. Are you able to listen to music
Q14. Do you follow the COVID-19 Pandemic health issues on the internet
Q15. Do you feel no control on your thoughts and emotions
Q16. Do you feel you are focused upon and talked about
Q17. Do you sense itching underneath your skin
Q18. Have you seen any unusual things like geometrical figures, lightening, and flames
Q19. Does any sound make you feel distracted? Generally from a distance
Q20. Do you worry about your mental state at all
Q21. Do you feel depressed because of fear that you might spread the disease to others or due to the fear that society may not accept you in the same way they have accepted you before
Q22. Do you feel rumors and misinformation are disturbing your day to day activities