Research Report

LIFESTYLE AND PSYCHOSOCIAL STRESS DURING COVID-19 LOCKDOWN – AN ONLINE SURVEY

Divya R Nair[1], Rajmohan Velayudhan[1]*, Raghuram TM[1]

[1]MES Medical College, Perinthalmanna, Kerala

*Corresponding Address: rajmohan.velayudhan@gmail.com

Submitted online: 17/5/2020 Published online: 21/6/2020

ABSTRACT

Background: In addition to the socioeconomic problems, COVID-19 related lockdown may have profound mental health consequences. **Aims and Objectives**: The objectives were to assess the influence of lockdown on lifestyle, psychosocial stresses, and experienced quality of life (QOL). The study also assesses the association of the socio-demographic variables with lifestyle, psychosocial stress, and QOL. Methodology: An online survey on the lifestyle changes, psychosocial stress, and QOL were conducted using a validated questionnaire via the Google forms platform. The data collected were analysed using parametric and nonparametric tests. Results: The study included 263 respondents. The fear of developing COVID-19 was reported by 67.7%, 31.2% experienced weight gain, internet use was increased in 66.9%, and alcoholism and smoking decreased by 83.3% and 58.8%, respectively. Lockdown upset 48.3% moderately, and 36.1% experienced anxiety, 23.4% feared job loss, and 51.3% had financial worries. 91.1% of the study population reported fair to good QOL. Females showed significantly more religiosity, ($X^{2=}$ 7.81; p= 0.02) did lesser exercise, ($X^{2=}$ 10.9; p= 0.023) and had poor mood. (t=2.68; p=0.009) Older people were less afraid of COVID-19 infection and were less upset by the lockdown. The urban population was more fearful of COVID-19 and were more upset by the lockdown. Conclusion: Lockdown had a major effect on lifestyle and increased psychosocial stress, but people still experienced a fair QOL during this period.

Keywords: COVID-19, Lockdown, Lifestyle changes, Psychosocial Stress, Quality of life

INTRODUCTION

COVID-19 (Corona Virus Disease 19) is a pandemic of unimaginable proportions. It has caught the world off guard, and the response to it so far has been varied across nations. At the time of writing this article it has already affected 44, 41,885 people and has claimed 2, 98,296 lives worldwide. India mounted one of the better responses, and as of May 14th we have

Please cite the article as: Nair D R, Rajmohan V, Raghuram TM. Lifestyle and psychosocial stress during COVID-19 lockdown – an online survey. Kerala Journal of Psychiatry 2020;33(1):5-15. doi: 10.30834/KJP.33.1.2020.194

78,003 cases with just 2549 deaths in a nation with 1.3 billion people.[1] Our ability to control the pandemic was in large part due to the lockdown adopted by the nation since March 24th.[2]

The lockdown disrupted normal social, economic, occupational, leisure, and religious activity. A review published recently in Lancet, which studied the literature on the psychological impact of quarantine stated that the separation and curtailed the movement of people potentially exposed to a contagious disease during previous epidemics such as SARS, resulted in a range of psychological conditions, from posttraumatic stress symptoms to confusion, anger, depression, stress, insomnia and emotional exhaustion.[3]

The situation is expected to be no different in India, and a report suggests that NIMHANS (National Institute of mental health and neurosciences) has set up a helpline to reach out to patients. States like Kerala have set up helplines to tele-counsel people in quarantine. The calls have been increasing, and in a single day, for instance, 7,000 calls were made, and the government has employed an army of over 700 counsellors.[4]

The lockdown and social distancing norms make a direct population study of the impact of isolation a difficult task. The only option remains an electronic questionnaire method on a self-report basis to assess the various aspects of the lockdown. There is, to the best of our knowledge, no literature from India published on the psychosocial and lifestyle impact of the lockdown. Therefore, this online survey is the first attempt to assess the lifestyle changes adopted by the population. The survey also assessed the psychosocial stress experienced by them during this period. The survey further assessed the association of various socio-demographic factors with the psychosocial and lifestyle changes.

METHODOLOGY

This cross-sectional online survey was conducted from 30th April to 12th May 2020 using (second and third phase of lockdown) Google forms maintaining anonymity (names and email addresses were not collected) of the participants. The sampling technique used was convenient sampling. The sample size was calculated as 236 based on an earlier study of the prevalence of combined sadness and anxiety of 19.4% during the COVID-19 outbreak in Wuhan, China.[5] A 19 item questionnaire in English with 12 questions having Likert scoring of 0-5 was designed for the study, and its content validity was ascertained by sending it to five experts in the field of community medicine and psychiatry. Further, the scale was validated against the 10 item Perceived stress scale[6] (PSS) via a pilot study where 20 participants were administered the questionnaire, and 20 people were administered the PSS. The process which lasted three weeks from the preparation of the questionnaire showed that the questionnaire had a high internal consistency with a Cronbach's α of 0.89.

The study targeted 18-65 years old people who expressed their consent by ticking yes to the first question of the form seeking approval. We excluded students of all age groups and people who did not complete the questionnaire. The questionnaire was circulated via email groups, Facebook pages, twitter handles, blog pages, and WhatsApp groups of different social and professional organisations, welfare and non- governmental associations, and miscellaneous societies to get

wide coverage. Institutional ethical committee approval was taken before the start of the study. The data collected were analysed using the chi-square test, independent sample t-test, Pearson's correlation, ANOVA, and the substance use, and psychiatric illness effects were analysed using the Mann Whitney U test and Kruskal Wallis ANOVA. All analysis was done using SPSS 25 for Windows.

RESULTS

The study received 315 responses, of which 17 people were unwilling to participate in the study. Therefore 94.6% consented for the study. Of this13 had to be excluded as they were outside the age range, and a further 22 were excluded as they had returned incomplete questionnaires. The final sample included 263 participants.

The sample consisted of 149 females (56.7%) and 114 males (43.3%). The mean age of the sample was 31.1 years (median age =29 years, SD=9.8). There were slightly more urban respondents than rural respondents (53.6% vs 46.4%). The educational distribution showed that 48.3% were graduates, and 40.7% were postgraduates, with only 11.1% having class twelve or lesser education. Most of the respondents were professionals or businessmen (67.7%), while 6.8% did manual or skilled labour, and 25.5% had no job. Singles or divorced people responded to more than married people (60.8% vs 39.2%). Of the sample, 14.4% had a medical illness, while 4.2% reported a psychiatric illness. Substance use was seen in 12.9% only.

A mild to moderate fear of developing COVID-19 was seen in 67.7% of the population, while high to extreme fear was noted in 16.4%, and 16% reported no fear. Of the lifestyle variables, sleep was stable, satisfactory or very satisfactory for 81.7% of the population while 18.3% only were dissatisfied or very dissatisfied. Food consumption was given attention during the lockdown, and 73.8% ate only in moderation, while 17.9 % increased their food consumption, and 8.4% ate lesser than earlier. Of the population, 58.6% did little or no exercise, while 39.9% did moderate to good exercise. Bodyweight was reported to be increased in 31.2% of the population, while it remained unchanged in 55.1% and decreased only in 13.1%. Religious activity increased in 27.4% of the respondents while it remained the same with 64.3%, and only 8.4% had decreased religious activity.

The study population reported that their internet use increased by 66.9%, while 30% had no change in internet use while only 3% reported decreased use. Alcohol consumption decreased by 83.3% post lockdown, while smoking reduced by 58.8%. However, 23.5% reported increased smoking during this period. (Table 1)

The study observed that 48.3% of the population were moderately or severely upset by the sudden imposition of lockdown, while 48.6% were a little or not at all upset and 3.1 % were extremely upset. When it comes to stress levels, 57.1% of the population said that they had little or no stress while only 39.5% reported moderate to severe stress. While there was no change in mood during the period for 43.3% of the people, anxiety was experienced by 36.1% while 7.2 % felt sad. However, 13.3% felt happier during this period. Hopelessness and suicidality were felt by 1.6% of the population.

Table 1: Lifestyle, psychosocial variables and QOL

	Poor/Decreased/ Never	Average/ No change	Good/Increased/ Always
Sleep	18.2%	17.1%	**64.7%**
Food	8.3%	**73.8%**	17.9%
Exercise/ Yoga	**58.6%**	26.2%	15.2%
Weight	13.7%	**55.1%**	31.2%
Religiosity	8.4%	**64.3%**	27.3%
COVID-19 Fear	16%	**67.7%**	16.3%
Upset by Lockdown	**48.6%**	35.5%	15.9%
Job Fear	**76.6%**	12.2%	11.2%
Financial Fear	**48.7%**	24.1%	27.2%
Stress Experienced	**57.1%**	34.6%	8.3%
Mood	**Sad: 7.2%** **Anxious: 36.1%**	43.3%	13.4%
Hopelessness/Suicidality	**94.7%**	3.8%	1.5%
Internet use	3.1 %	30%	**66.9%**
Alcohol Use	**83.3%**	12.5%	4.2%
Smoking	**58.8%**	17.7%	23.5%
Quality of Life	9.9%	43.7%	**46.4%**

Most prominent observations given in bold letters

The fear of losing their current job was a little to none in 76.6% while 23.4% experienced fear of job loss. Regarding future earnings, 51.3% were worried about their future income, while 48.7% showed little or no worry. During the lockdown, 43.7% reported neither poor nor good quality of life (QOL) and 39.2% reported a good QOL. Only 9.9% of people reported a poor or extremely poor QOL and 7.2% reported very good QOL. Therefore around 90.1% reported that their QOL was fair to particularly good. (Table 1)

There is an association between sex and religiosity; women became more religious (69.4%) than men (30.6%) which is significant. (χ^2=7.843, p=0.02) More women did not exercise than men (65.3% vs 34.7%) which also is significant. (χ^2=10.57, p=0.02) The fear of job loss was significantly more in men than in women. (t=-3.05, p=0.003) There was also a significantly greater fear of ensuring future earning among men than women. (t=-2.19, p=0.03) However, women had significantly more mood issues than men. (t=2.64, p=0.009) There was no association of sex with QOL, fear of getting infection, sleep and food score, weight gain, hopelessness and death wish, internet and substance use. (Table 2)

Table 2: Association of socio-demographics with lifestyle and stress

	Sex	Age	Domicile
Sleep	F:M= 3.48: 3.58; t=-0.71; p=0.47	ρ=-0.05; p=0.41	U: R=3.42:3.6; t=--1.5; p=0.11
Food	F:M= 3.05: 3.14; t=-1.44; p=0.41	ρ=-0.43; p=0.48	U: R=3.0:3.1; t=--0.32; p=0.74
Exercise/ Yoga	**F-I=,10%;S=26.17%, D=63.7% M-I=21.9%,S=26.3%,D= 51.7% $X^{2=}$ 10.9; p= 0.023****	BG=29.19 WG=1196.5 F=0.171; p=0.84	U-I=14.8%;S=25.5%,D=59..5%R-I=15.5%,S=27.04%,D=57.3% $X^{2=}$4.69; p=0.33
Weight	F:M= 2.30: 2.14 t=1.42; p=0.15	ρ=0.07 p=0.21	U: R=3.0:3.1 t=-1.4; p=0.16
Religiosity	**F-I=,33.5%; S=60.4%, D=6.04% M-I=6.2%, S=75. %, D=18.7% $X^{2=}$ 7.81; p= 0.02****	BG=51.88 WG=25358.1 F=0.26; p=0.767	U-I=30.5%; S=64.5%, D=4.9% R-I=23.7%, S=63.9%, D=12.2% $X^{2=}$5.58; p=0.07
COVID Fear	F:M= 3.42: 3.40; t=1.10; p=0.25	**ρ=-0.17; p=0.005****	**U: R=2.63:2.32; t=2.72; p=0.007****
Upset by Lockdown	F:M= 2.56: 2.50; t=0.50; p=0.61	**ρ=-0.14; p=0.018****	**U: R=2.6:2.38; t=2.26; p=0.02****
Job Fear	**F:M= 1.63: 2.09; t=-3.05; p=0.003****	ρ=-0.05; p=0.43	**U: R=2.0:1.7; t=2.05; p=0.04****
Financial Fear	**F:M= 2.43: 2.83; t=-2.19; p=0.03****	ρ=0.001; p=0.99	U: R=2.67:2.6; t=-0.42; p=0.66
Stress Experienced	F:M= 2.35: 2.28; t=0.54; p=0.59	ρ=-0.08; p=0.15	U: R=2.3:2.2; t=-0.99; p=0.32
Mood	**F:M= 3.73: 3.26; t=2.68; p=0.009****	ρ=-0.05; p=0.37	U: R=3.4; 3.6; t=-1.0; p=0.28
Hopelessness /Suicidality	F:M= 1.12: 1.02; t=1.98; p=0.052	ρ=-0.89; p=0.15	U: R=1.07:1.08; t=-0.53; p=0.59
Internet use	F-I=,63.7%; S=32.8%, D=3.3%% M-I=71%, S=26.3%, D= 2.63% $X^{2=}$ 1.5; p= 0.45	BG=14.32 WG=1263.1 F=0.11; p=0.88	U-I=30.5%; S=64.5%, D=4.9% R-I=23.7%, S=63.9%, D=12.2% $X^{2=}$4.73; p=0.09
Alcohol Use	F-I=,0%; S=0%, D=100% M-I=6.2%, S=18.7%, D= 75% $X^{2=}$ 2.4; p= 0.36	BG=339.9 WG=25069.9 F=0.87; p=0.48	U-I=9.1%; S=9.1%, D=81.81% R-I=0%, S=15.3%, D=84.6% $X^{2=}$1.37; p=0.77
Smoking	F-I=25%; S=0%, D=75% M-I=23%, S=23%, D= 54% $X^{2=}$ 1.16; p= 0.56	BG=490.45 WG=24919.5 F=2.5; p=0.07	U-I=25%; S=25%, D=50% R-I=22.2%, S=66.6%, D=11.1% $X^{2=}$0.67; p=0.81
Quality of Life	F:M= 3.42: 3.40; t=0.25; p=0.79	ρ=0.05; p=0.35	U: R=3.4:3.43; t=-0.29; p=0.76

Bold with **= Significant; I= Increased, S= Same, D= Decreased, BG=between groups, WG= within-group F= female, M=male; U= urban; R= rural; t= independent sample t-test value; X^2=Chi Square, ρ= Pearson's Correlation, F= Fisher statistic in ANOVA

There was a significant inverse correlation between age and fear of getting COVID-19. (ρ=-0.17, p=0.005) Older people were less afraid of being infected with COVID-19. There was also a significant inverse correlation of age and being upset scores showing that older people were less upset by the sudden lockdown. (ρ=-0.14, p=0.018). There was no significant correlation or association of age with any other lifestyle or stress/ worry

Table 3: Association of education and occupation with lifestyle and stress

	Value		Significance
Education	Religion		
	Postgraduate:	High School:	
	Increased-25.2%	Increased 59%	
	No change-62.6%	No change-27.2%	$X^{2=}$ 30.43
	Decreased-12.1%	Decreased-13.6%	
	Graduate:	Primary education:	p<0.001
	Increased-21.2%	Increased-71.4%	
	No change-74.8%	No change-14.2%	
	Decreased-3.9%	Decreased-14.2%	
Occupation	Fear of COVID-19 Score		F=4.29
	Professional/business - 2.55 (SD=0.9)		
	Manual/Skilled labour - 1.8 (SD=0.9)		p= 0.015
	Unemployed - 2.50 (SD=1.0)		
	Mood Score		F=4.71
	Professional/business - 3.04 (SD=1.4)		
	Manual/Skilled labour - 3.11 (SD= 1.5)		p= 0.01
	Unemployed - 3.97 (SD=1.2))		

variables or QOL. There was significantly more fear of getting COVID-19 among the urban population than rural. (t=2-72, p=0.007) Urbanites were significantly more upset than rural people due to the change brought about by the lockdown (t=2.26, p=0.025) and had significantly more worry about their job security than rural people. (t=2.05, p=0.04) There was no significant association of place of domicile with any other lifestyle or stress/ worry variables or QOL. (Table 2)

There was a significant association of education with religious beliefs and significantly more people with primary and high school education had increased religiosity than graduate and postgraduate education. (χ2=30.43, p<0.001) There was no significant association of education with any other lifestyle or stress/ worry variables or QOL. With respect to occupation, there was a significantly lesser worry of getting COVID-19 among manual/skilled workers than professionals/businessman and unemployed. (F=4.29, p=0.015) Further unemployed had poorer mood than professionals and manual/skilled workers. (F=4.72, p=0.010). However, there was no significant association of occupation with any other psychosocial variables or QOL. There was also no association of marital status with lifestyle, psychosocial and QOL variables. (Table 3)

The nonparametric analysis shows that people with psychiatric illness had no association with lifestyle or psychosocial variables other than mood; psychiatric patients had poorer mood scores than others. (Mann-Whitney U= 851.5, p= 0.02) And among cannabis, LSD and cocaine users there is a much lesser concern or worry about getting/losing jobs than any other substance use group or teetotalers. (Kruskal-Wallis H=24.55, p<0.001) There was no association of substance use with any other variables.

DISCUSSION

Reviews have observed that the internet can be used for qualitative research and to generate hypotheses. The internet population, however, is non-representative of the general population, restricting the use of the internet for quantitative studies.[7] This is an important limitation of our study, as we could not investigate more quantitative variables. However electronic interviews and surveys (`e-surveys') are emerging scientific research methodologies, pioneered by communication scientists, sociologists, and psychologists.[7]

The consent rate was 94.6% which is roughly within the range observed in an earlier study. [8] The total completion rate of the forms was 88.25% which is comparable to the 92.3% reported by an earlier study.[8] The majority of the respondents were women (56.7%) which is also echoed by the Chinese study done almost at the same time, which had 53.1% responders as women.[8] The average age was found to be 31.1 years, probably showing that more young people respond to net surveys. The studies done earlier also had 21.4 to 30.8 years age range in one and an age range of 32.3 +- 10 years in the other.[5, 8] Most of our respondents had a graduate or postgraduate education, the earlier surveys also showed a similar pattern with 56% and 69% having University education in this population.[5,8] The occupational pattern of more professionals responding than manual labourers and unemployed is also in keeping with other studies. [5, 8]These studies show that internet use and online survey reply rates are greater among professionals than manual and other skilled workers. Medical illness (14.4%) is in keeping with the study on single and multiple chronic diseases in India showing a range of 13-36% [9]and psychiatric illness (4.2%) is less than national statistics for mental illness reporting it to be 7.4% - 10.6%.[10] The prevalence of substance use (14.4%) however is in keeping with Indian research showing substance use to be 6.9% to 21 %.[11]

A mild to moderate fear of developing COVID-19 was seen in 67.7% of the population; this is higher than an earlier study that reported that 51.5% were horrified due to the illness and similar to another study which showed that 61.2% were afraid of possibly or likely to get COVID-19.[12, 13] The current study, however, did not examine the rates of pathological fear separately from normal fear. Around 16% were least concerned about getting COVID-19 which is also like a Chinese study that showed that 12.59% felt that they are not likely to develop COVID-19.[13]

Sleep quality was largely preserved, and only 18.3 % experienced sleep disturbance. The reports from Italy and China, however, observed 30% - 57.1% and 36.4% sleep disturbance respectively which was higher than this study.[8, 15] The higher rate might be due to the more rampant spread of COVID-19 in Italy with a lot more morbidity and

mortality. ⁻There was great moderation in terms of food intake with 78.1% controlling their intake and only 17.9% overeating. However, there is no published data to draw context on the prevalence of eating problems during quarantine or lockdown. These people with stress-driven eating or drinking were more likely to eat unhealthy foods.[15] This, however, was seen only in the minority in our study. Exercise was done regularly by 39.9%, which was lesser than what was observed in a survey from China during quarantine where more than half of the participants (59.7%) also reported that they were spending more time exercising.[12] Our survey found that more than half (58.6%) got little or no exercise. However, the fact that more than half did not exercise may explain the increase in body weight in 31.2% despite the attention given to dietary moderation. The weight increase also was echoed in similar percentages by two earlier surveys. [8, 15] Religious activities almost remained static in more than two-thirds of the population (66.9%) with only 27.4% praying more. The result may, in a sense echo the belief pattern seen in Norway post a disastrous tsunami. Religion did not play an important role in the lives of Norwegian tsunami survivors in general. Respondents who had the greatest disaster exposure were more likely to report changes in religious beliefs in both directions. Religious beliefs did not prevent post-disaster long-term mental distress, and religiosity was not related to higher levels of life satisfaction.[17] There are no comparable published data from quarantine studies to corroborate this data. It, however, has been suggested that higher spirituality may develop as a coping mechanism in response to personal suffering. [18, 19]

There was an increase of internet use (66.9%) which goes with the finding that the internet (93.5%) was the primary health information channel for the general public during the initial stage of COVID-19 epidemic in China.[8] Another study from Hubei, China found that 82.0% of participants frequently expose them to social media.[4] So internet seems to be the primary portal for information, interaction, work and entertainment for those who faced lockdown. There was a remarkable drop in alcohol and smoking statistics in our study. The closure of all alcohol outlets might have resulted in a reduction of alcohol consumption by 83.3%. Similarly, the closures of non-essential shopping outlets lead to a drop of 58.8% in smoking. This scenario being unique, there is no data to compare these results.

Nearly half the population felt upset (48.3%) by the change brought about by the lockdown. This is similar to a survey which showed that 53.8% of Chinese respondents reported moderate to severe impact from the event and an Italian survey that showed distress to be 41.8%. [8, 15] Stress levels were low in more than half the population in our study; however, a study from China showed that stress was high in 61% to 66% of the respondents. [12] The levels of anxiety (36.1%) were similar to a study from Italy which reported that 32.1% felt anxious during the COVID-19 pandemic.[15] The Hubei survey for anxiety disorders showed that anxiety disorders were prevalent in 22.6%, which is expected using stricter criteria of anxiety. We observed sadness in 7% but did not estimate depression which in the Chinese survey was 48.3%.[5] The reason for the lower rate of sadness reported in our study is unclear; a tentative reason may be that people reported being more anxious than sad.

The fear of job loss (23.4%) and future income (51.3%) were far less than the figure of an Indian survey by Economic Times which found a vast majority of the citizens (86%) were worried about losing their jobs and livelihoods. However, our results are similar to the fear of job loss figures of 31% in Britain, 33% in Australia and 41% in the US reported by the same survey.[21] However, a more methodologically rigorous survey from China shows that 30% feared job loss stress which closely resembles our survey.[12] Despite the hardships of the lockdown, the QOL was surprisingly fair to good for more than 90% of the population. However, we did not assess QOL with any scale, so the conclusion has its limitations. Further, we were unable to find any study on the QOL of people during the pandemic from the published works. The only study which had in its title the QOL of people, however, did not quantify QOL, [12] so greater research is needed before any conclusion on QOL can be drawn.

Our survey found that men had more stress of job loss and future earning than women. However, a survey in Chinese subjects showed that there was no difference between men and women in terms of job fear or financial fear.[12] The mood scores were found to be poorer in women, and this finding is echoed by similar studies during the pandemic. [5, 12, 15] Women also exercised lesser than males, and this is contradicted by the only other study on this variable, which found no difference between men and women on the time spent on exercise. [12] Our survey found an increase in religious activity among women, but there are no studies to compare, and no conclusions can be drawn from this result. Our results showed no difference among men and women on being upset by quarantine, fear of developing COVID, use of the internet, and feeling helpless all of which are in concordance with an earlier Chinese survey.[12] Our study showed that older individuals were less afraid of getting COVID-19 even though it is more fatal in them, and they were less upset by the lockdown. The fear of developing COVID-19 and being apprehensive was found to be lowest among 41-50 age group and lower in people above 50 years in a survey from China.[12] The fact that they are more settled and the probable ability to better accept crisis may be the reason why older people are better able to handle the illness fear and change in lifestyle. Our results showed no difference in terms of age on fear of job loss, fear of future income, mood, use of the internet, and feeling helpless all of which are in concordance with an earlier Chinese survey.[12]

The survey found that urban population had a greater fear of developing infection and were more upset by the lockdown. The probable greater awareness of the illness and the higher possibility of population mobility may have increased the fear of the illness. Further urbanites need to travel more and are in high-pressure jobs which when disrupted may be more upsetting. However, no studies exist to compare these results. There was no difference in urban and rural population on sadness, anxiety and helplessness scores which are echoed by the study from Italy.[15] Our survey also notes lesser fear of getting illness among manual and skilled workers and unemployed (confounded by a large proportion of women) had poorer mood.

The lesser awareness about the illness, lesser mobility and contact with lower exposure risk people in manual/ skilled may be the reason for fear in them. This, however, cannot be

compared with any other studies as no studies have examined this association. The poor mood in unemployed was also seen in an earlier study.[15] Educational status had no association with fear of infection, job loss, being upset, anxious, or fear of income, and similar findings were reported by the Chinese survey.[12] But the significant increase in religious beliefs among people with primary and high school education than graduate and postgraduate education needs more studies to be confirmed and explained. There were also no studies to compare the association of marital status with the different psychosocial variables.

Further, the poorer mood among the mentally ill, though, can be explained by their poorer stress tolerance; no studies so far have examined the response of this vulnerable group to lockdown. The number of cases has progressively risen, although lockdown and how that has affected the stress levels in the period following the study is unclear. Our survey is limited by its online nature, and therefore it is not representative of the general population. Further, the bias towards the more educated and technology adept classes, with no data on people of low socioeconomic status who probably are most affected by the lockdown affects the results of our study.

CONCLUSION

Despite its limitations, the study shows that though people have experienced fear of illness, fear of jobs and revenue, anxiety, and were upset by the lockdown, they were able to show resilience and were able to maintain a fair to good quality of life. However, due to our limitations, larger population-based surveys are needed once the lockdown is lifted, and the situation is normalised to study in retrospect the real impact of the lockdown.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Novel Coronavirus (2019-nCoV) situation reports - World Health Organization (WHO). (Accessed on 15.05.2020)
2. Gettleman J, Schultz K. Modi Orders 3-Week Total Lockdown for All 1.3 Billion Indians. https:// www. nytimes. com/ 2020/ 03/ 24/ world/asia/india-coronavirus-lockdown.html. (Accessed on 15.05.2020)
3. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, Rubin GJ. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet. 2020 Mar 14; 395(10227):912-920.
4. Rahman AP. Isolation and mental health: the psychological impact of lockdown. https://www.thehindu.com/society/isolation-and-mental-health-the-psychological-impact-of-lockdown/article31237956.ece (Accessed on 15.05.2020)
5. Gao J, Zheng P, Jia Y, Chen H, Mao Y, Chen S, et al. Mental health problems and social media exposure during COVID-19 outbreak. PLoS ONE. 2020; 15(4): e0231924
6. Cohen S, Kamarck, T, Mermelstein R. A global measure of perceived stress. Journal of Health and Social Behavior. 1983; 24, 386-396.
7. Eysenbach G, Wyatt J. Using the Internet for surveys and health research. J Med Internet Res. 2002 Apr-Nov;4(2): E13. doi: 10.2196/jmir.4.2. e13.
8. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, Ho RC. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic

among the general population in China. Int. J. Environ. Res. Public Health. 2020; 17 (5): E1729.

9. Joshi R, Santoshi JA, Rai N, Pakhare A. Prevalence and Patterns of Coexistence of Multiple Chronic Conditions: A Study from Indian Urban Outpatient Setting. J Family Med Prim Care. 2015 Jul-Sep;4(3):411-5.
10. Murthy RS. National Mental Health Survey of India 2015-2016. Indian J Psychiatry. 2017 Jan-Mar;59(1):21-26.
11. Murthy P, Manjunatha N, Subodh BN, Chand PK, Benegal V. Substance use and addiction research in India. Indian J Psychiatry. 2010 Jan;52(Suppl 1): S189-99.
12. Zhang Y, Ma ZF. Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China: A Cross-Sectional Study. Int J Environ Res Public Health. 2020 Mar 31;17(7):2381.
13. Yuan S, Liao Z, Huang H, Jiang B, Zhang X, Wang Y, Zhao M. Comparison of the Indicators of Psychological Stress in the Population of Hubei Province and Non-Endemic Provinces in China During Two Weeks During the Coronavirus Disease 2019 (COVID-19) Outbreak in February 2020. Med Sci Monit. 2020 Apr 15; 26: e923767. doi: 10.12659/MSM.923767.
14. Rosen JB, Schulkin J. From normal fear to pathological anxiety. *Psychol Rev.* 1998;105(2):325-350.
15. Casagrande M, Favieri F, Tambelli R, Forte G. The enemy who sealed the world: Effects quarantine due to the COVID-19 on sleep quality, anxiety, and psychological distress in the Italian population. Sleep Med. 2020 May 12.
16. Mattioli AV, Ballerini Puviani M, NasiM, Farinetti A.. COVID-19 pandemic: the effects of quarantine on cardiovascular risk. *Eur J Clin Nutr.* 2020.
17. Hussain A, Weisaeth L, Heir T. Changes in religious beliefs and the relation of religiosity to posttraumatic stress and life satisfaction after a natural disaster. Soc Psychiatry Psychiatr Epidemiol. 2011 Oct; 46(10):1027-32.
18. Davidson JR, Connor KM, Lee LC. Beliefs in karma and reincarnation among survivors of violent trauma: a community survey. Soc Psychiatr Epidemiol. 2005; 40:120–125.
19. Calhoun LG, Tedeschi RG. The foundations of posttraumatic growth: An expanded framework. In Calhoun LG and Tedeschi RG (Eds.), The handbook of posttraumatic growth: research and practice. Mahwah: Lawrence Erlbaum; 2006: 3-23.
20. Linley PA, Joseph S. Positive change following trauma and adversity: a review. J Trauma Stress. 2004; 17:11–21.
21. PTI. 86% fear job losses as coronavirus scare mounts: Survey. https://economictimes.indiatimes.com/jobs/86-fear-job-losses-as-coronavirus-scare-mountssurvey/articleshow/75553872.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst. (Accessed on 15.05.2020)