

Original Article,

The Lockdown: A social primary preventive measure.

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Abstract:

Introduction: Lockdown is an emergency protocol that prohibits people from freedom of movement outside residence. It also restricts fake information from getting circulated on social media. Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease for observation and detection of possible signs and symptoms of the disease during maximum incubation period. Thus it differs from lockdown where irrespective of exposure all members of the community are kept under isolation in home or place of residence for an arbitrary period of time. The purpose of lockdown is to prevent exposure to an infectious organism. Both measures are for reducing the risk of infection. In this study we have made observations related to lockdown.

Objectives: 1.To studies the behaviour pattern of general population in the lockdown period. 2. To find the impact of various activities on the quality of life of population. 3. To understand the mentality of students during such critical phase.

Methods: A cross sectional study was conducted among various students in Maharashtra. A self-administered on line questionnaire was used to access socio demographic variables, sleep cycles pattern, their experience in relation to online lectures conducted, their schedule, exercise, thoughts about inculcating a hobby. Also questions regarding their mobile usage and its purpose were asked. The Statistical analysis was carried out using the IBM SPSS software version 22.0. The Pearson-Chi square test was used.

Results: Out of the 500 respondents, 55.6% (n=278) were females and 44.4% (n=222) males. Majority were from Urban areas (80.30% n=401) followed by Rural areas (19.7% n=99) Maximum participants i.e. 337 (67.4%) said that their sleeping pattern was altered during the lockdown period and 121 (24.2%) said no change was seen. 234 (46.80%) had grown irritable during this period.168 (33.6%) respondents enjoyed the online teaching process. 159 (31.8%) respondents were not in support of online lectures. 133 (26.6%) students admitted that online teaching helped them in their daily studies and exams preparation,

258 (51.6%) were not sure about it. Majority i.e.366 (73.2%) students confessed of missing traditional way of teaching and learning pattern. 253 (50.6%) students picked up some or the other hobbies, 124 (24.8%) didn't choose any. 278 (55.6%) kept themselves busy and learnt some or the other vocational skill, whereas 165 (33%) didn't inculcate any vocational skill. 384 (76.80%) believed that they had increased social media activity while 38 (7.60%) weren't sure and 78 (15.60%) had no increase. Conclusions: Promoting the idea of keeping on self-occupied along with elders in the family with activities like exercise, picking up vocational activities like cooking and maintaining adequate sleeping patterns will go a long way in curbing the psychological problems associated with the lockdown period.

Key words: Lockdown, students, Behavioural pattern, Problems.

Introduction:

A lockdown is an emergency protocol for infectious disease by primary prevention of exposure to an infectious agent. This measure is important for diseases transmitted by air borne and droplet routes. It is a temporarily measure which prohibits free movement of people in society by restricting them inside their house hold / or place of residence. The protocol can usually only be initiated by someone in a position of authority. Lockdowns can also be used to protect people inside a facility from a threat or other external event. A drill lockdown usually means that doors leading outside are locked such that no person may enter or exit. A full lockdown usually means that people must stay where they are and may not enter or exit a building or rooms within said building. A preventive lockdown is a pre-emptive action plan implemented to address an unusual scenario or a weakness in system to pre-empt any danger to ensure the safety and security of people, organisation and system. The focus for preventive actions is to avoid dangers and risks arising from the non-conformances to the normal circumstances, but also commonly includes improvements in efficiency [1]. Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease to ascertain if they become unwell, during incubation period of the concerned disease thus reducing the risk of them infecting others. Isolation and quarantine help protect the public by preventing exposure to people who have or may have a contagious disease. Isolation separates sick people with a contagious disease from people who are not sick. Quarantine separates and restricts the movement of people who were exposed to a contagious

disease to see if they become sick [2]. Lockdown is restriction of localised entire community irrespective of their exposure or disease status. Thus there is an epidemiological difference in the words isolation, quarantine and lockdown. But same phenomenon of restriction of social movement applies to all. The socio psychological aspects of lock down and quarantine are similar.

The word quarantine was first used in Venice, Italy in 1127 with regards to leprosy and was widely used in response to the Black Death, although it was not until 300 years later that the UK properly began to impose quarantine in response to plague [3]. Most recently, quarantine has been used in the coronavirus disease 2019 (COVID-19) outbreak. This outbreak has seen entire cities in China effectively placed under mass quarantine, while many thousands of foreign nationals returning home from China have been asked to self-isolate at home or in state-run facilities [4]. After independence the lockdown is probably used for the first time for prevention of a spread of a droplet infection for prevention of COVID -19. Dangers of lockdown include isolation from loved ones, the loss of freedom, uncertainty over disease status, and boredom. This all can on occasion create untoward dramatic effects. Suicide has been reported [5] substantial anger may be generated, and lawsuits are fought [6] following the imposition of quarantine in previous outbreaks.

The potential benefits of mandatory mass lockdown need to be weighed carefully against the possible psychological costs [7]. Successful use of lockdown as a public health measure requires us to reduce, as far as possible, the negative effects associated with it. A study of hospital staff who

might have come into contact with SARS found that immediately after the quarantine period (of 9 days) the factor most predictive of symptoms of acute stress disorder [8] was noticed to be "having been quarantined". A study comparing post-traumatic stress symptoms in parents and children quarantined with those not quarantined found that the mean post-traumatic stress scores were four times higher in children who had been quarantined than in those who were not quarantined [9].

As today along with all countries worldwide, India is facing COVID-19 pandemic and as measure for its control lockdown was introduced by the government. During this period all the citizens were at home without any social event or gathering so we planned to ask few questions to all these students who were the part of it about their routine in this period. Basic aim was to analysis the positive as well as negative impact that the lockdown phase has caused on all of them. The lockdown was introduced due to Corona virus which is a very contagious and has quickly spread globally. The Corona Viruses have become pathogens that can be held majorly responsible for causing respiratory disease outbreaks. They belong to a large family of single-stranded RNA viruses (+ssRNA) that can be isolated from different animal species. There is no specific antiviral treatment and no vaccine is currently available for the management of COVID-19. Management at community level includes recognizing and sorting patients with severe acute respiratory disease as well as practicing mass lockdown, home quarantine and hospital isolation methods [10].

Materials and Methods:

Study Design; Descriptive Cross Sectional Study.

A cross sectional study was conducted among various students in Maharashtra. Written informed consent was obtained from the students who volunteered to participate in this study. The sample size was calculated. Confidentiality of collected information and anonymity of the participants was maintained throughout the conduct of the study.

Study instrument:

We used a self-administered questionnaire. The questionnaire was circulated online using Google forms to ensure the completeness of the information. The questionnaire included questions pertaining to socio demographic variables followed by questions regarding their sleep cycles, their experience in relation to online lectures conducted, their schedule, exercise, and thoughts about inculcating a hobby. Also questions regarding their mobile use and its purpose were asked. Statistical Analysis: The Statistical analysis was carried out using the IBM SPSS software version 22.0. The Pearson-Chi square test was used to determine associations and all p values ≤ 0.5 were considered statistically significant.

Results:

A total of 500 students were surveyed and the following results were obtained in the present study Socio-demographic characters- Of the 500 respondents, 55.6% ($n=278$) females and 44.4% ($n=222$) males. Majority were from Urban areas (80.30% $n=259$) followed by Rural areas (14.34% $n=64$) as shown in figure 1, of the 500 respondents, majority i.e. 337 (67.4%) said that their sleeping pattern had changed during the lockdown period, whereas 121 (24.2%) were following their daily sleep routine and 42 (8.4%) were not sure of any change in their sleep cycle As shown in figure 2: 168 (33.6%) respondents enjoyed the online teaching process. On the other hand 159 (31.8%) respondents were not in support of online lectures. Also 173 (34.6%) respondents did not give a firm opinion whether or not online teaching was a good experience. As shown in figure 3: 133 (26.6%) students said that the online lecture taken for them during this period really helped them in their daily studies and exams whereas 109 (21.8%) did not agree with this but 258 (51.6%) thought that it may be helpful but they were not sure about it. As shown in figure 4: As many as 366 (73.2%) students confessed of missing traditional way of teaching and learning pattern. So it can be concluded that traditional way of teaching in a live class is really helpful for students in their daily studies and long term knowledge gain process. As shown in figure 5: During this lockdown period, inculcating some

good skills and giving space to your hobbies was very important. According to this study it was found that 253 (50.6%) students picked up some or the other hobbies, whereas 124 (24.8%) didn't choose any. As shown in figure 6: It was found that 278 (55.6%) kept themselves busy and learnt some or the other vocational skill, whereas 165 (33%) didn't inculcate any vocational skill and 57

(11.4%) were not sure whether they acquired any additional skill. As shown in figure 7: It was found that 384 (76.80%) believed that they had increased social media activity while 38 (7.60%) weren't sure and 78 (15.60%) had no increase in their social media activity during the lockdown period activity during the lockdown period

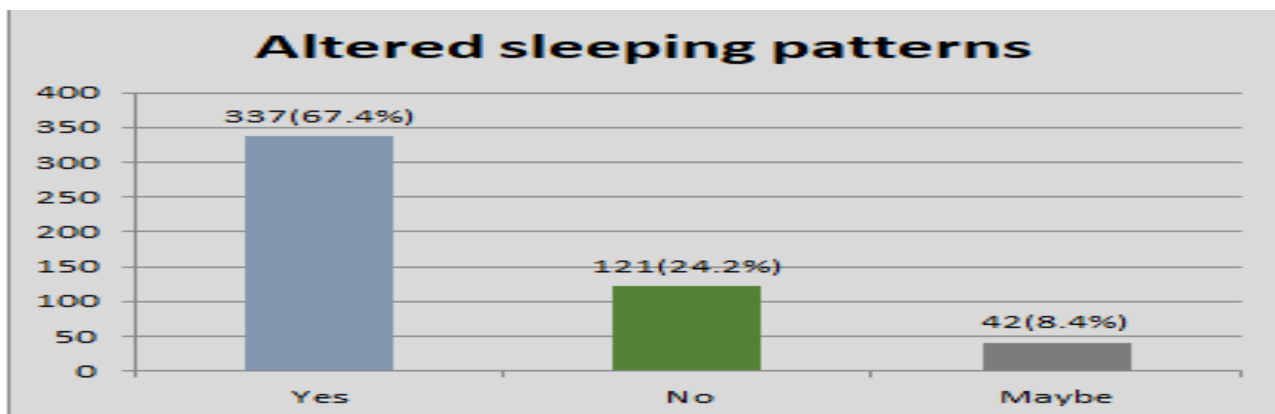


Figure 1-Sleeping patterns of students in the lockdown period (n=500)

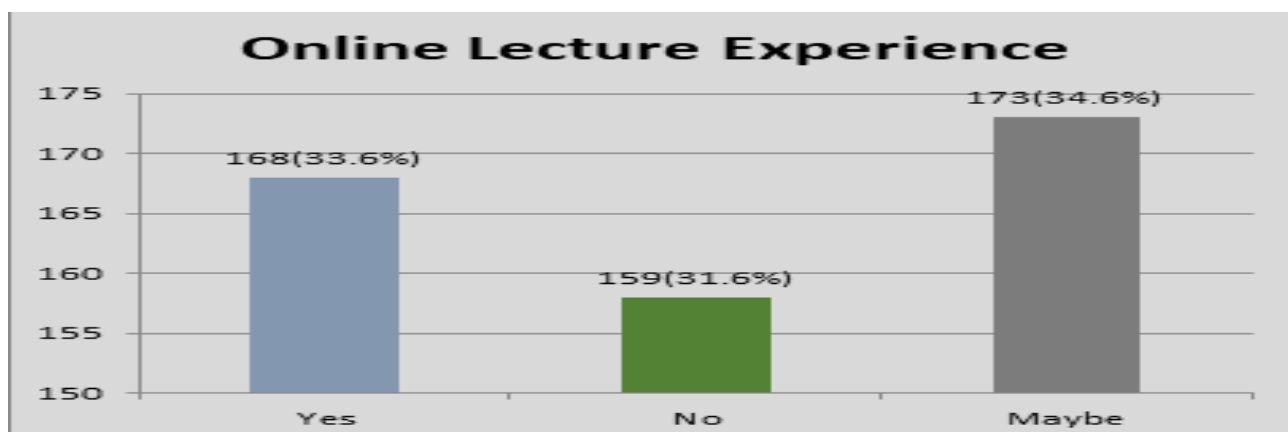


Figure 2 – Online learning experience of students (n=500)

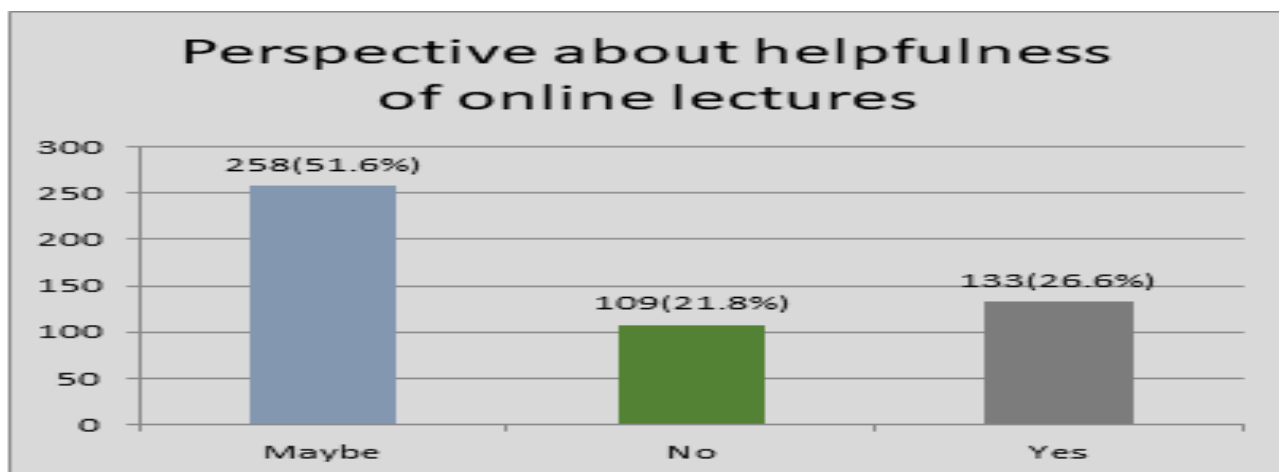


Figure 3- Perspective regarding helpfulness of online lectures among students (n=500)

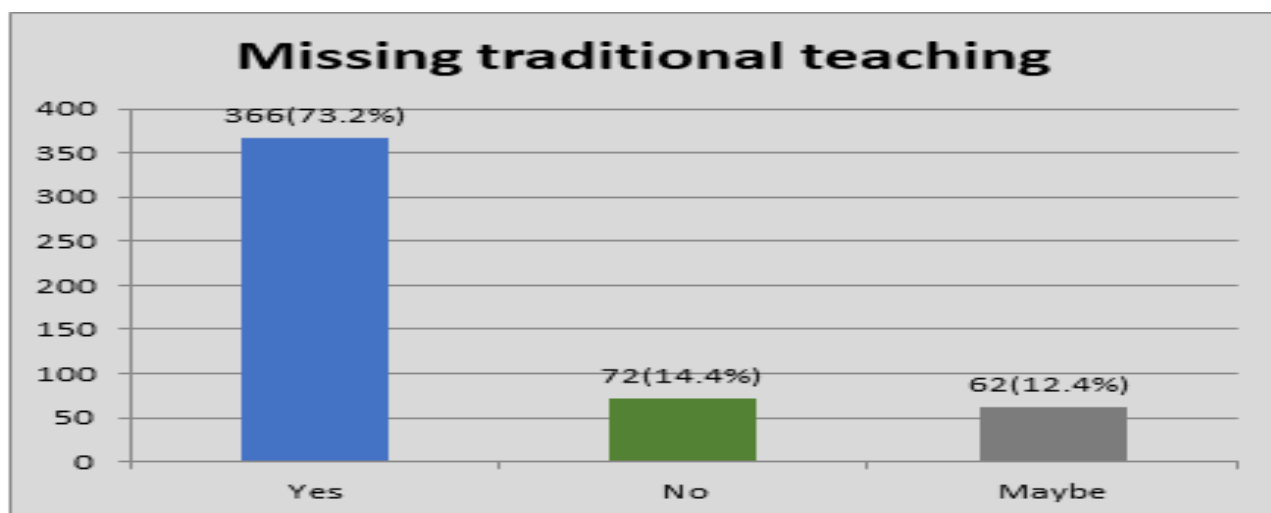


Figure 4 – Students opinion about whether they miss traditional classroom teaching (n=500)

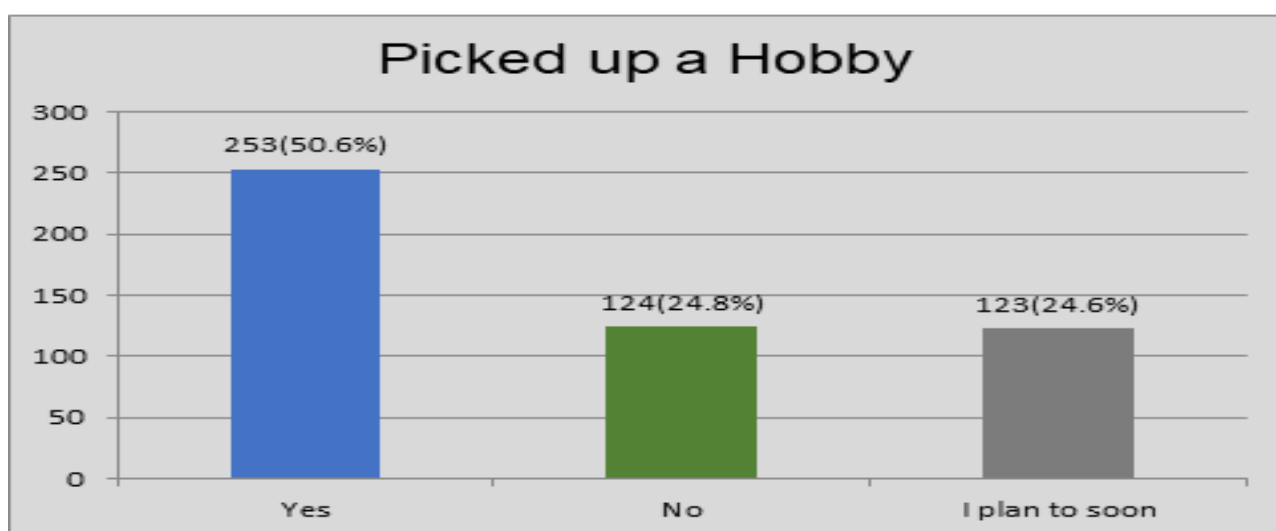


Figure 5- Students' preference towards picking up a hobby in their free time during the lockdown (n=500)

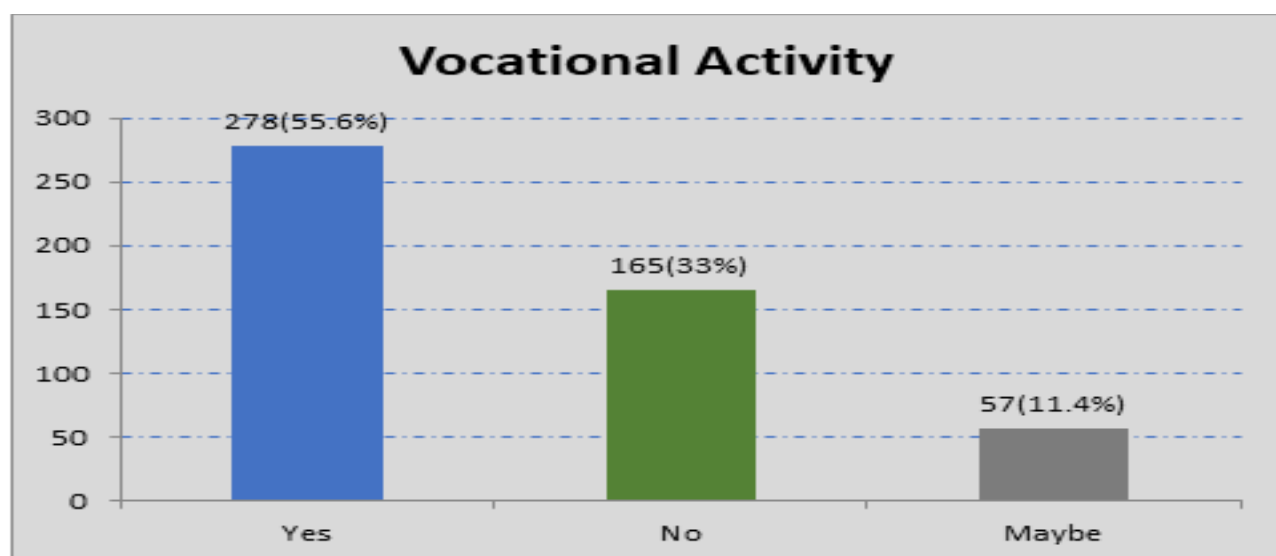


Figure 6- Students' preference towards learning a new vocational skill such as cooking in their free time during the quarantine (n=500)

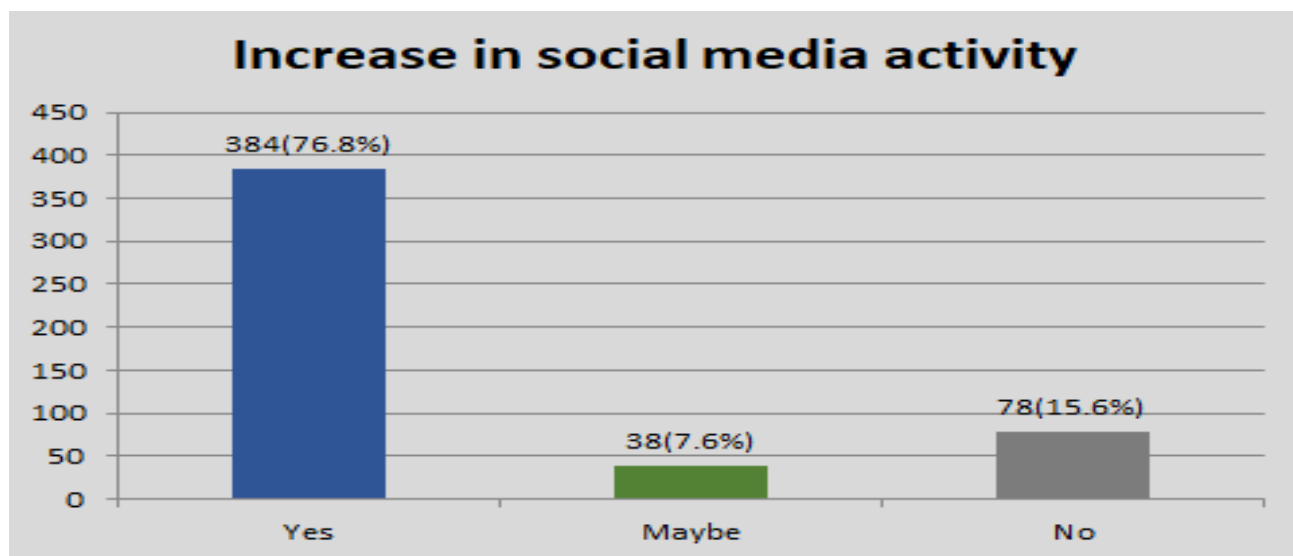


Figure 7- Students' opinion about whether their social media activity has increased during the lockdown period

Discussion:

This is probably the first study to find out the effect of lockdown on the daily routine and behaviour of the students however some studies are available on the behaviour changes and psychological effects of quarantine. Since the population undergoing quarantine and lockdown is unaffected / non diseased apparently healthy population the studies on quarantine are compared to our results related to lock down. The present study has found that altered sleeping patterns have a statistically significant relationship with irritability. 337 (67.4%) participants reported that their sleeping patterns had changed during the lockdown and 234 (46.80%) had grown irritable during the period. Thus it can be said that the lockdown certainly is having a negative impact on the mental health of the population like irritability and loss of concentration power as a result of change in the sleep pattern. Good concentration was maintained by 187 (37.40%) students during online lectures which was significantly associated with proper sleeping patterns. A higher number of students 366 (73.3%,) appear to miss traditional teaching which is in concert with the fact that most students also appear to be uncertain about the profitability of online teaching in helping them with their studies. 258(51.6%) participants being unsure of whether online learning is truly a comfortable experience and 109 (21.8%) being

certain that online teaching is not helpful for them, may also explain why students miss traditional classroom teaching. The disparity in the environment of the classroom and home environments may be a reason of discomfort as well. Also it was noticed that psychological effects of quarantine can be great resulting in a range of mental health conditions including impaired concentration which can be one of contributing factor for unpleasant experience in context of online lectures. [11] This phase of lockdown has led to laziness amongst the students so exercise played a significant role at this time. A significant relation was established between exercise and irritation. The students who did daily exercise were found to be less affected psychologically by the hysteria surrounding the pandemic and the prolonged social disconnect which nonetheless, have led to increased irritability. In this context, in one study a session of 20 minutes of the exergame Zumba Fitness was performed at in healthy women, this seemed to significantly reduce state anxiety levels. Also, an 8-week (2 days per week, 60 minutes per session) exergames intervention (dance steps, postural control, co-ordination, and walk training) seemed to provide superior effects on anxiety levels in patients with fibromyalgia, compared with a nonexercise control group.[12] Participants who picked up a vocational activity, such as cooking,

electronic repairing, baking were found to have no complaints of feeling lazy and also had become less irritable as compared to those who hadn't picked such an activity. ($p \leq 0.5$). About half of the participants (50.6% $n=253$) had picked up a hobby and about 123 (24.4%) planned to pick one soon thereby showing a general tendency in the population to keep themselves occupied, a possible way of coping with the stress owing to the pandemic and social disconnection. Relative inactivity and more leisure time have led to increased social media activity and overuse of phones, which in turn has caused an alteration in the sleeping patterns. The current study, in keeping with this has found a significant relation between sleeping pattern and phone use time. Increased social media activity was found to be significantly associated with growing irritability within the population. Non-physical socialization and a constant companion drawn possibly between the life of self and others, inferred on the basis of social sharing of daily activities is certainly cumbersome for some. The peer pressure can thereby be concluded as being a cause of increasing irritability. Increased social media activity of the students during this phase has caused negative impact on various everyday activities. The reduction in activity supplemented by the psychological challenges that social distancing and lockdowns have ushered, a general attitude of feeling lazy with a difficulty in concentrating, among the participants, was noted in the present study. During this period of quarantine, most children and teens have fewer school responsibilities and less access to extracurricular activities and social opportunities. Many parents are strained by the added responsibility of supervising their children during the day in addition to their typical responsibilities. In addition to fears and stresses caused by the spread of the COVID 19 virus, increased contact and parental responsibilities can put a significant strain on family dynamics and create conflict. ^[13]

Conclusions: The present study, on the basis of the findings stated above, concluded that the alterations in sleep patterns and social or peer pressure curated by the overwhelming social media activity of people during the lockdown has led to increased irritability and a lazy

temperament among a few sections of the population. The study also found that exercise on a daily basis made the participants less irritable and helped them concentrate better on online learning, thereupon reiterating the importance of physical exercise in maintaining normal health. It can thus be said that promoting the idea of keeping oneself occupied with activities like exercise, picking up vocational activities like cooking and maintaining adequate sleeping patterns will go a long way in curbing the psychological problems associated with the lockdown period. Proper healthcare must be taken during this period. Routine health check-up and monitoring of various parameters of health is the need of time. As it's an viral disease norms regarding social distancing and usage of mask must be strictly followed. Proper check-up will help to maintain better health. As during this period all are at home one should try to be more interactive with elders to reduce the boredom. In case of boredom creative activities must be done by students. Maximum utilisation of lockdown period for improvement of skills and enhancing creativity will keep all to remain active. Elderly people at home should give time to the younger generation. They should teach them new things and give them proper guidance. Their activities with elders will help them to overcome laziness and negative thoughts. Lockdown can in fact be taken as a golden opportunity for interaction between parents and children. Skills like cooking, painting, music, gardening, embroidery, etc. should be promoted to enhance creativity and invest time in a proper way.

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