

## Effect Of Covid-19 Lockdown On Mental Status Of Neet Aspirants - Questionnaire Based Study.

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### Abstract

**Background :**In late December 2019, a group of pneumonia-like diseases was reported in China. COVID-19 worldwide pandemic has created a sense of uncertainty, and fear around the world. Complete lockdown in the nation has been implemented by the government of India. Consequently, Pre medical exam[NEET]2020 has been postponed with no clearly stated date. This also leads the NEET aspirants to adverse effects on learning and mental status of students.

**Aim:** To assess the effect of Covid-19 lockdown on mental status of NEET aspirants .

**Methods:**This study was based on a cross-sectional survey to assess the mental status of NEET aspirants during lockdown. This online survey was conducted using Google form and circulated through whatsapp. The study setting is based on questionnaire based surveys.This cross sectional study has been examined in SPSS software version 23. The sample size of this survey is 256.

Total 256 responses were received by the stipulated time. Chi-square, bar chart, pie chart data were collected from this SPSS software.

**Result:**Results were analysed using SPSS software 23 and chi square test was done. Among 256 participants, the majority got motivated as lockdown gave plenty of time for NEET preparation. In the chi-square test, if the p-value was less than 0.05, it was considered to be statistically significant.

**Conclusion:**The lockdown due to covid-19 pandemic poses a great challenge to the lives of people. The study showed that the NEET aspirants were more stressed and anxiety level was in them. Index survey suggested that the pandemic affected the preparation of the respondents to a great extent and affected their mental status negatively.

**Key words:** Covid lockdown, mental status, NEET aspirants, innovative technique

## **INTRODUCTION:**

In late December 2019, a group of pneumonia-like diseases was first reported in China and worldwide it was implemented in March 2020. China is the first country in lockdown implementation to stop the spread of infection. Lockdown is defined as an emergency measure in which the movement of people is temporarily restricted during threat of danger. Quarantine is the one which separates and restricts the movement of potentially exposed people to a contagious disease, thus risk infection is reduced. This pandemic also has created an economic, Social and mental effect on the masses. Social distancing, educational institutions get closed and self isolation shows a great impact on people's psychology due to increased loneliness, social interaction gets reduced(1). Fear and uncertainty rise along with the sudden marked increase in cases, it affects the mental health of the individuals.(2) A latest review on the psychological impact of quarantine during Covid-19. Pandemic published in the Lancet showed a wide range of impact on mental health from stress, anger, insomnia, emotions to depression, anxiety, fear, low mood, irritability were the common symptoms experienced.(3) The worldwide rapid increase of infected cases has led to a sense of uncertainty and stress, anxiety about what is going to happen, if the lockdown is extended.(4) It has caused a very great level of stress and has adverse effects on the learning and mental status of NEET aspirants. Covid-19 worldwide pandemic may have a serious impact on the careers and freshers of this year's NEET aspirants. Due to the coronavirus outbreak, there is no school and coaching centre, but they encourage the students through online classes.(5) Many teachers guide the students well, but many aspirants feel anxious and stressed, while preparing for NEET examination. Our team has extensive knowledge and research experience that has translate into high quality publications (6),(7),(8),(9),(10),(11),(12),(13),(14),(15),(16),(17),(18),(19),(20),(21),(22),(23),(24),(25)The aim of the present study is to assess the effect of Covid-19 on mental status of NEET aspirants during the quarantine period.

**MATERIALS AND METHODS:**Data collection is usually done with personal contact but due to Covid-19 lockdown it is done online. This is a questionnaire based survey. Questions were framed based on demographic information about the impact of COVID-19 pandemic lockdown on mental status of NEET aspirants.This study was based on cross sectional survey to assess the mental status of NEET aspirants during lockdown. Sample is collected through Google Forms from NEET aspirants. The sample size is 256.

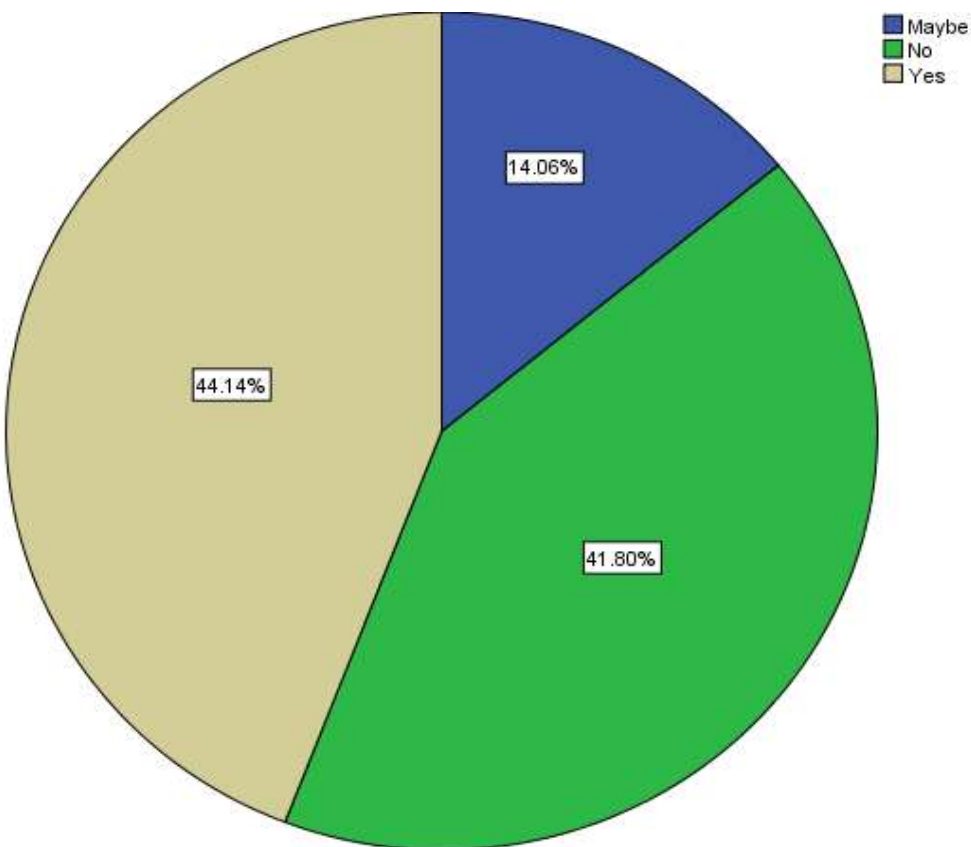
Inclusion and exclusion criteria of Students aged 17 to 19 were included in the study. Students aged above 20 were excluded from the study.

NEET 2020 postponement has brought a lot of stress among the students. This is statistically analysed by SPSS software version 23 using chi-square test. Bar chart, pie chart data were collected from this SPSS software. The data was verified by the Dental anatomy faculty of saveetha Dental Institute with no resolution of conflict, censored data or error identification. The questionnaire comprised a series of questions including their demographic characteristics like age and gender. The other questions are as follows:

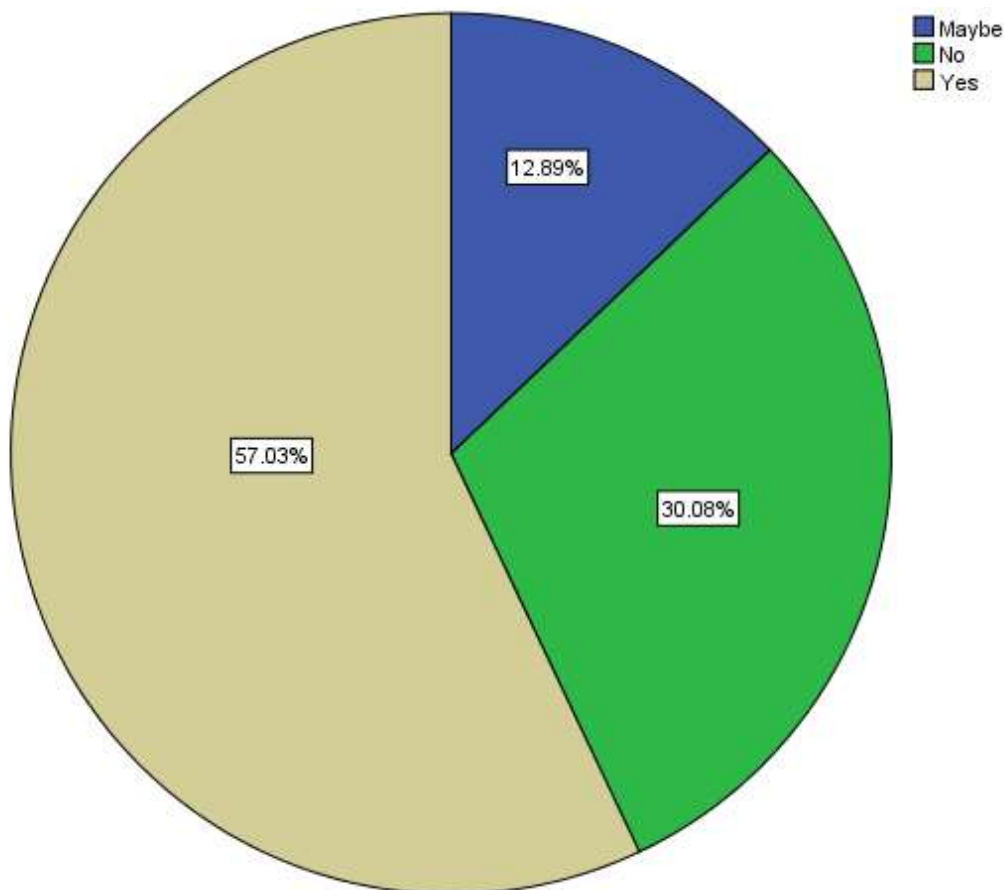
- Are you NEET repeaters or freshers?
- Whether you had motivation while preparing for NEET 2020, during quarantine?
- Whether mobile phone and social media was a major distraction, while preparing for NEET 2020 during lockdown?
- Do you think uncertainty due to COVID-19 pandemic has left many NEET aspirants anxious and worried?
- Whether online classes helped you to get more marks?
- Whether you used the quarantine properly, which gives plenty of time, for NEET preparation 2020?
- Whether the postponement of NEET 2020 has been beneficial for you?
- Whether you faced mental distress or depression while preparing for NEET 2020 during COVID-19 quarantine?
- What about your Anxiety level, during NEET Preparation 2020 quarantine period ?
- Do you think preparation days were very stressful and hard to handle?
- Are you excited that NEET 2020 was postponed due to worldwide pandemic COVID-19?
- \*Finally, how did you get prepared for NEET 2020?

**RESULTS:** This study is conducted through Google Forms. The data were analysed statistically by SPSS software. The questions are circulated using google forms. Among 256 responses, 51.4% are male and 48.6% are female. NEET repeaters are 54.69% and NEET freshers are 45.31%. 57.4% students get motivated while preparing for NEET 2020 during quarantine. 44.14% students are not getting motivated while preparing for NEET 2020 during quarantine which is shown in figure 1. 30.08% students get major distraction by mobile phones and social media during quarantine NEET 2020 preparation which is shown in figure 2. 30.08% students do not get major distraction by mobile phones and social media during quarantine NEET 2020 preparation which is shown in figure 3. 46.88% students get anxious and worried due to uncertainty. 25.39% students do not get anxious and worried due to uncertainty which is shown in figure 4. 37.89% NEET aspirants get more marks through online classes which is shown in figure 5. The bar graph represents the association between the gender and how they get motivated while preparing for NEET 2020, during quarantine. 61% of males got motivation whereas 52% of females got motivation,

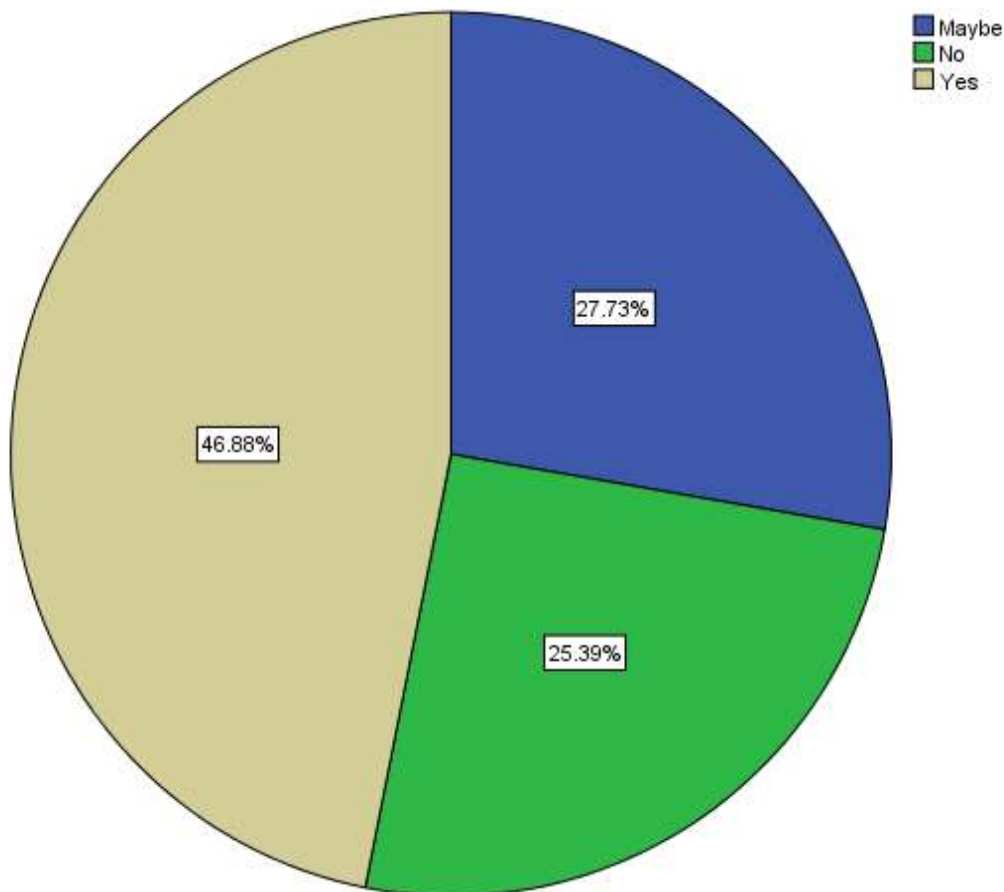
which is shown in figure 6. The bar graph represents the association between the gender and how they get distracted by mobile phones and social media, while preparing for NEET 2020. Most of them get distracted by mobile phones and social media which is 32.03%. 17.19% represents that they don't get any distraction through this. 6.64% represents some of what they get distracted by this, which is shown in the figure 7. The bar graph represents the association between gender and uncertainty due to COVID-19 pandemic that has left many NEET aspirants anxious and worried. 25.39% male students get anxious and worried due to uncertainty and 21.48% of females get anxious and worried due to uncertainty, which is shown in the figure 8. The bar graph represents the association between gender and how online classes helped to get more marks during quarantine. 19.92% of males responded that online classes helped to get more marks and 17.97% of females responded that online classes helped to get more marks, which is shown in the figure 9. The bar graph represents the association between the gender and how they used the quarantine properly which gives them plenty of time for NEET preparation. Most of them used quarantine properly which is 33.59% and rest of them don't use the quarantine properly which is 23.05%, which is shown in the figure 10.



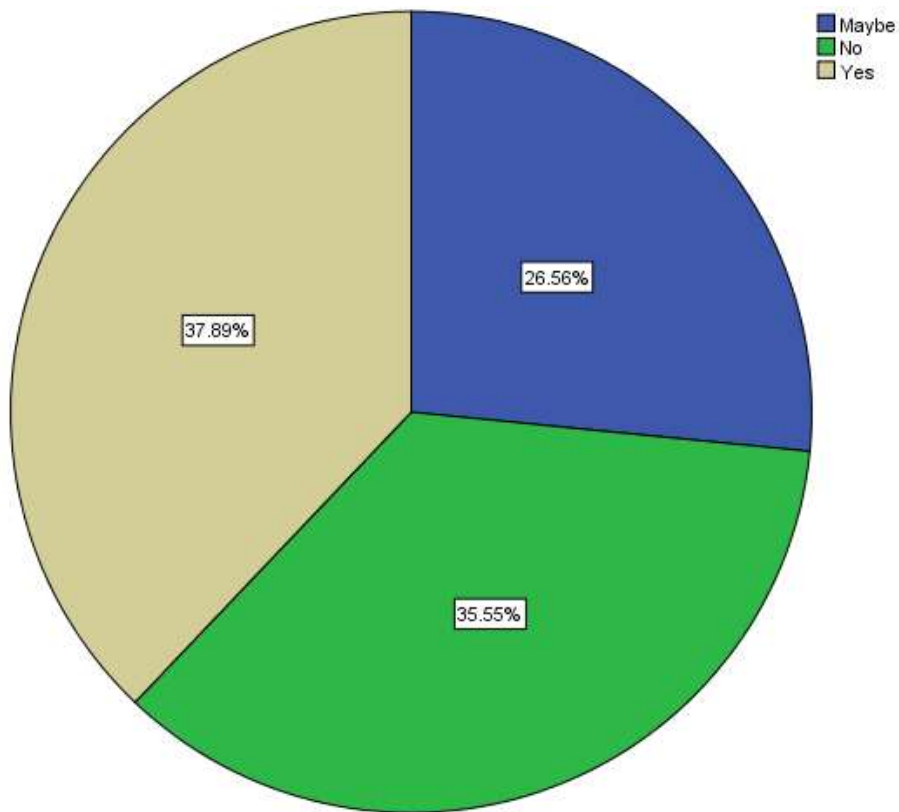
**Figure 1:** Shows the percentage of students that get motivation while preparing for NEET 2020. 44.14% get motivated (beige), 41.80% don't get motivated (green), 14.06% maybe get motivated (blue). Majority of the participants are motivated while preparing for NEET 2020.



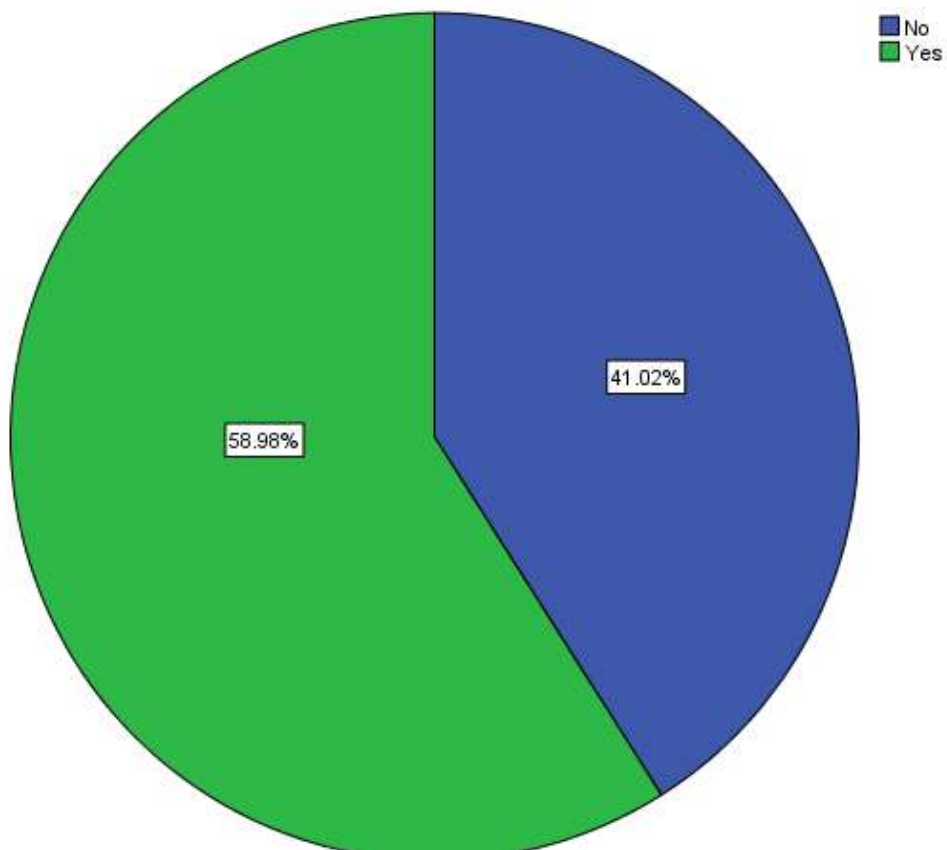
**Figure 2:** Shows the response of participants who think mobile phones and social media was a distraction while preparing for NEET 2020 during lockdown. 57.03% agree (beige) and 30.08% don't agree (green), 12.89% maybe (blue) mobile phones and social media was a distraction while preparing for NEET 2020. Majority of the participants think mobile phones and social media was a distraction while preparing for NEET 2020 during lockdown.



**Figure 3:** Shows the response of NEET aspirants thinking about the uncertainty due to covid-19 pandemic has left many of them anxious and worried. 46.88% agree (beige), while 25.39% don't agree (green), 27.73% who may be (blue) anxious and worried due to uncertainty. Majority of the participants agreed that thinking about the uncertainty due to covid-19 pandemic has left many of them anxious and worried.



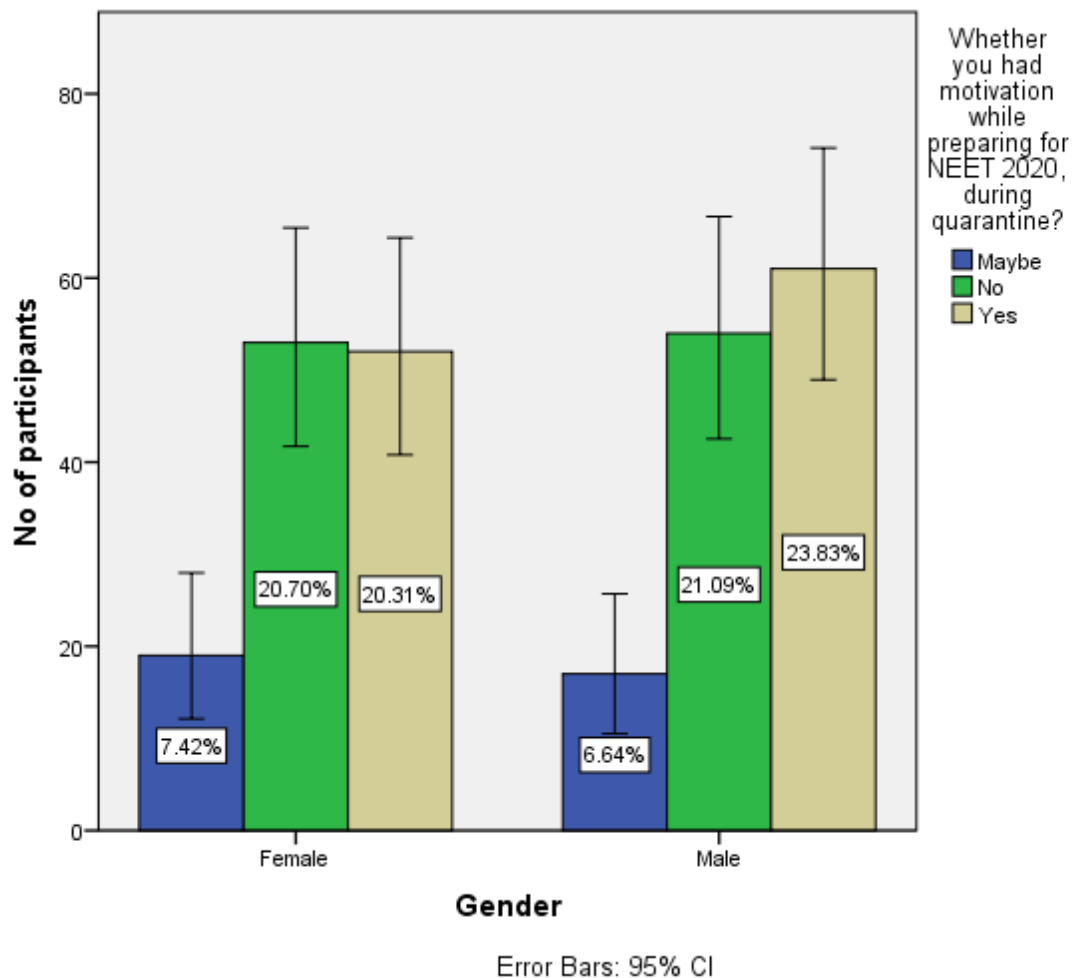
**Figure 4:** Shows the response of NEET aspirants who think that the online classes helped to get more marks during the quarantine period; 37.89% agree (beige), while 35.55% don't agree (green). Majority of the participants agreed that online classes helped to get more marks during the quarantine period.



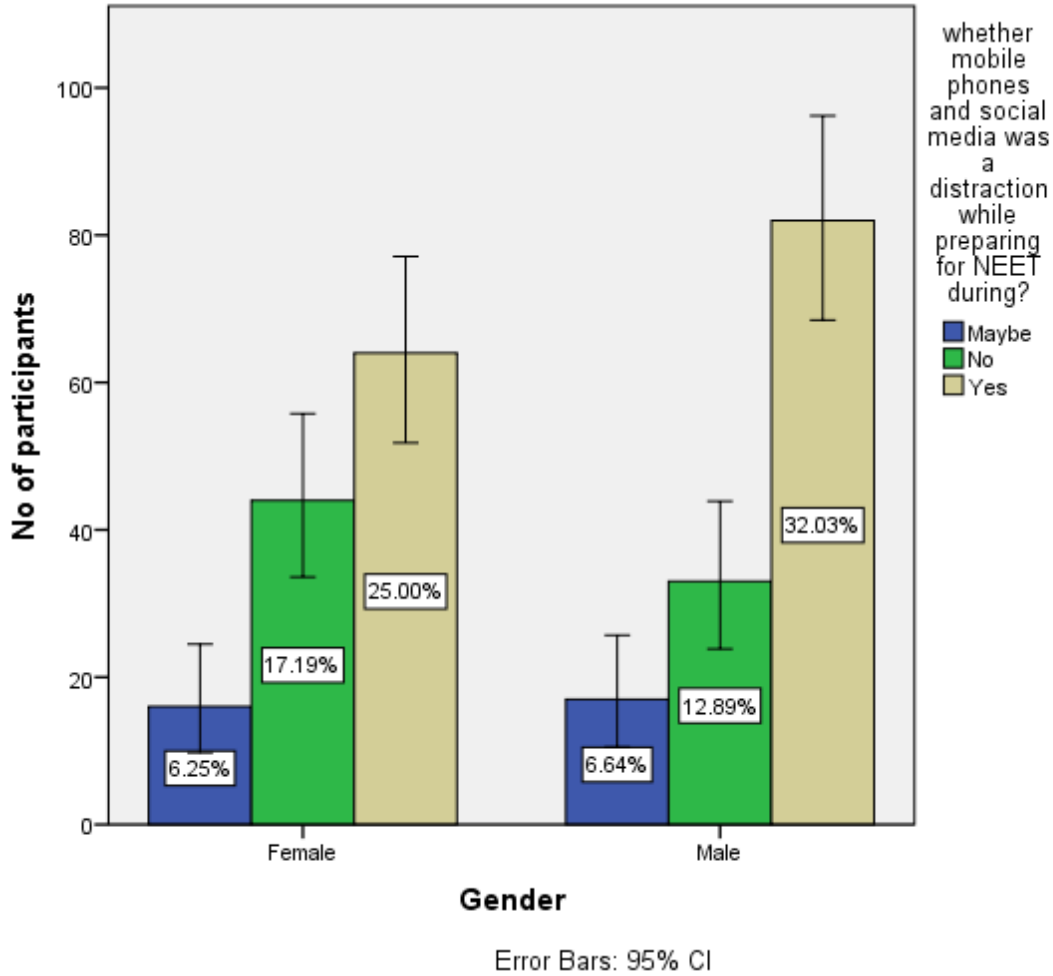
**Figure**  
5: Shows the response of NEET aspirants on how they used the quarantine properly , which gives plenty



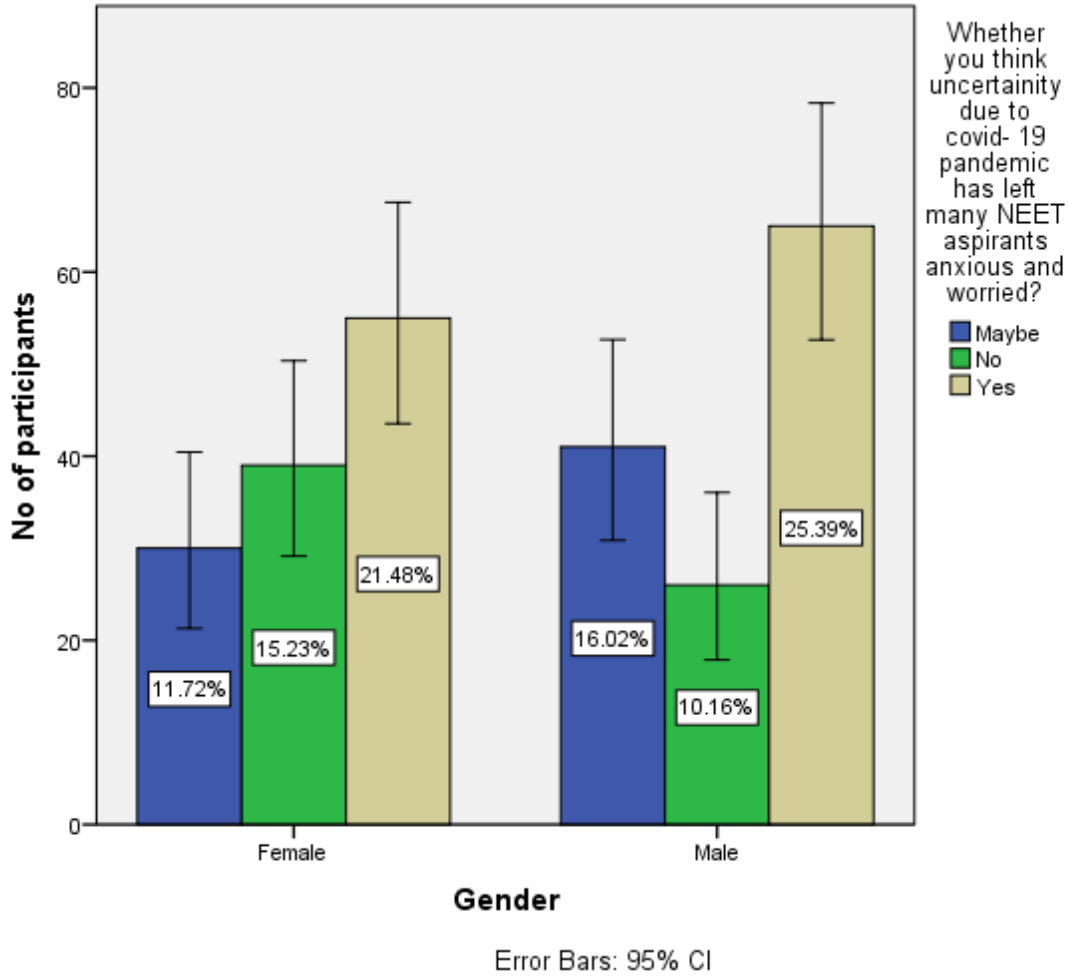
of time for NEET preparation 2020; 58.98% say yes (green) and 41.02% say No (blue). Majority of the participants utilized quarantine properly and got plenty of time for NEET preparation.



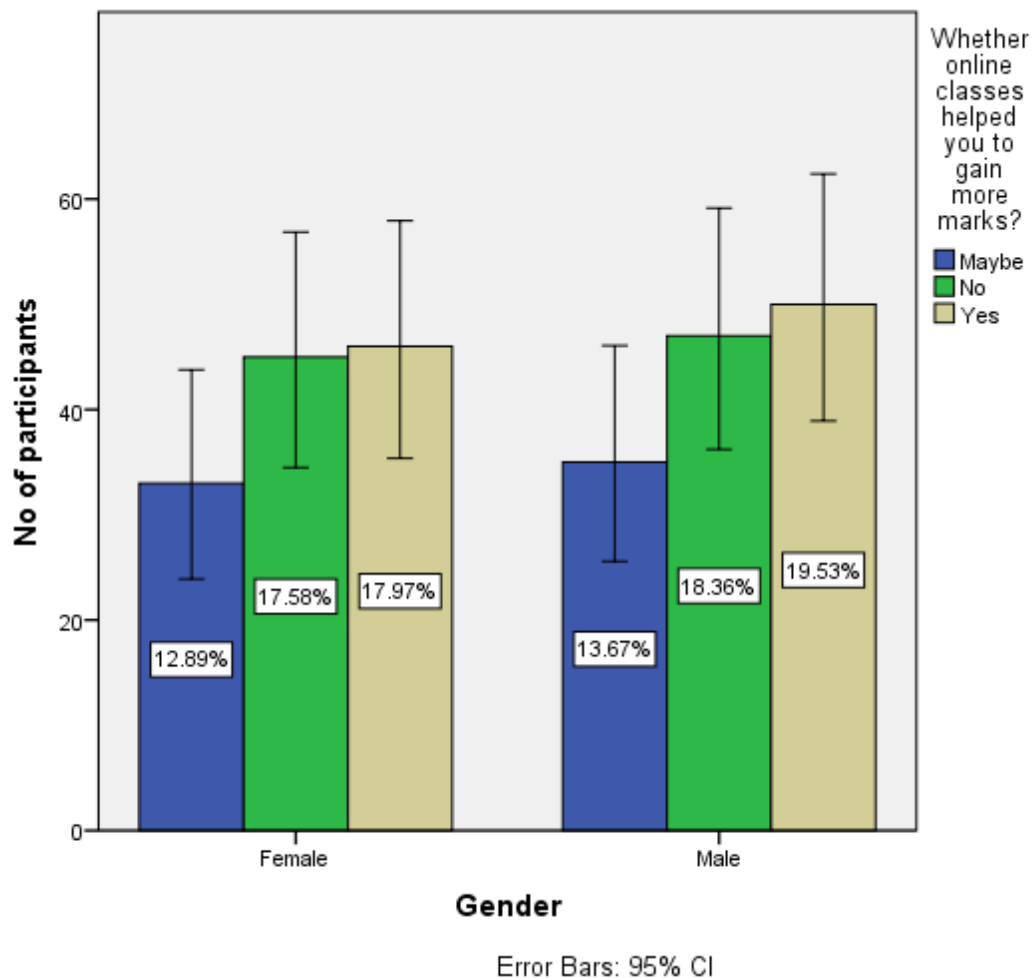
**Figure 6:** The bar graph represents the association between the gender and how they get motivated while preparing for NEET 2020, during quarantine. X axis represents gender (male/female) and Y axis represents percentage of response. Blue represents Maybe, green represents No and yellow represents Yes. 23.83% of males got motivation whereas 20.31% of females got motivation implying that males are more motivated than females. p value is 0.745 and is statistically insignificant ( $p > 0.05$ ).



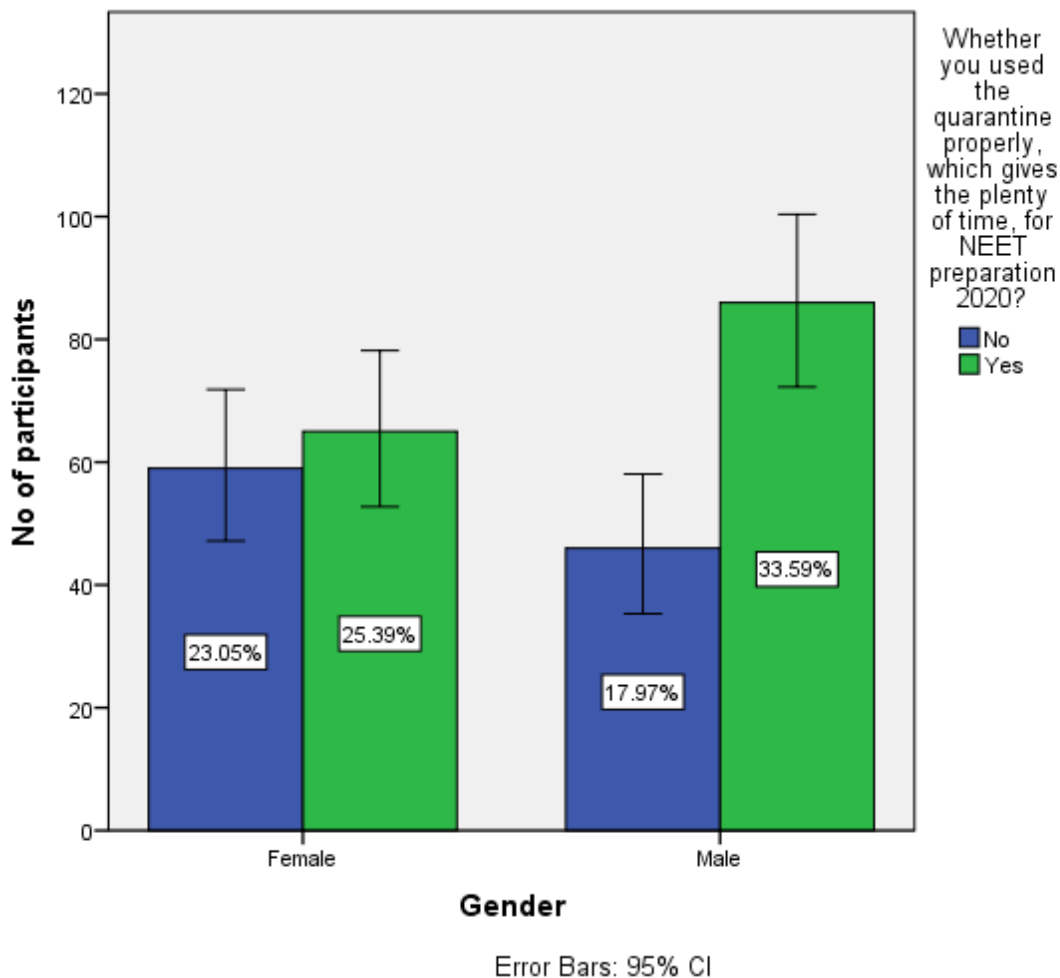
**Figure 7:** The bar graph represents the association between the gender and how they get distracted by mobile phones and social media, while preparing for NEET 2020. X axis represents gender (male/female) and Y axis represents percentage of response. Beige represents yes, green represents no and blue represents maybe. Majority of males (32.03%) consider they get distracted by mobile phones and social media, while preparing for NEET 2020 as compared to females (25%). P value is 0.167 and is statistically insignificant ( $p > 0.05$ ).



**Figure 8:** The bar graph represents the association between gender and uncertainty due to COVID-19 pandemic that has left many NEET aspirants anxious and worried. X axis represents gender (male/female) and the Y axis percentage of response. Most of the males and females(25.39% and 21.48%) felt that uncertainty has left many NEET aspirants anxious and worried which is represented by yellow. Some of them don't get anxious and worried, which is represented by green(15.23% and 10.6%). P value is 0.087 and is statistically insignificant ( $p > 0.05$ ).



**Figure 9:** The bar graph represents the association between gender and how online classes helped to get more marks during quarantine. X axis represents gender (male/female) and Y axis represents percentage of response. 19.53% of males responded that online classes helped to get more marks and 17.97% of females responded that online classes helped to get more marks. Chi-square test showed p value 0.087 which is greater than 0.05 which is insignificant.



**Fig 10:** The bar graph represents the association between the gender and how they used the quarantine properly which gives them plenty of time for NEET preparation. X axis represents gender (male/female) and Y axis represents percentage of response. Blue represents No, whereas green represents Yes. Most of them used quarantine properly which is represented as Green(33.59% and 25.39%) and rest of them don't use the quarantine properly which is represented as Blue(23.05% and 17.97%).Majority of males used the quarantine properly which gives them plenty of time for NEET preparation as compared to females. Chi-square test showed p value is 0.007 which is less than 0.05 , it is statistically significant.

**DISCUSSION:** From the study we are able to know about the state of NEET aspirants during the quarantine period. There is plenty of time to get prepared for NEET 2020, but at the same time it is very stressful and participants face fear and anxiety. Covid-19 totally changed every person's mind set during quarantine. Most of them get good ideas on how to solve it. Educational institutions also took many measures to help the students gain more marks.(26) It brings students more panic, due to covid-19, so that it affects the NEET students' mental status. Even though social distancing and isolation has changed dynamics of friendship and relationships making it virtual , being close to family and loved ones has given a big support, which can certainly be helpful in adjusting with the new normal. Mobile phones and social media are the

major distraction during NEET preparation.(27) Many respondents found that covid-19 pandemic had made it difficult to adjust to the new routine during the lockdown period and disturbed their preparations. The lockdown has also created a scenario during which people were bound in their homes and will not leave and thus were left to fear about their important work and unfinished businesses. At one point, there was panic buying and other people started hoarding grocery items because it wasn't definite when the lockdown would end. This was a situation which generated an extreme level of fear within the general public which was aggravated by the speed of accelerating infections in several countries alongside increasing mortality rates. In multiple studies as quoted during a review, it had been reported that fear of being infected or infecting others was one among the common stressors during quarantine.

In the current study, it had been found that the majority of individuals had sleep disturbance, appetite changes, palpitation, anger/irritability and restlessness. A review that assessed the psychological impact of quarantine reported insomnia, exhaustion, anxiety symptoms and irritability as a number of the commonly experienced psychological symptoms. Heightened levels of stress and anxiety as stated above would definitely produce symptoms. The authors also found cases affected by insomnia, general unease and fear during their day-to-day practice.

A study wiped out China during COVID-19 and another study wiped out Canada during SARS reported no significant association among psychological symptoms with demographic variables like age, sex, and education level. Furthermore, anxiety and stress associated with COVID-19, a potentially life-threatening condition, can arouse a big amount of stress in anyone, regardless of caste or creed. Limitation of the study is less sample size. The present study did not highlight the correlation of mental status of the NEET aspirants. Most individuals have a fundamental motivation to socially interact .(28). It is a self administered questionnaire study, participants can hide the truth. Future studies may help to know the mental status of NEET aspirants during covid-19.

## **CONCLUSION**

This study showed that the NEET aspirants had high anxiety. This survey was an attempt to peek into the psychological impact of the pandemic, which was still at peak. Lock down due to covid-19 world wide pandemic poses an impact on NEET students. The survey suggested that the pandemic affected the respondents to a great extent and affected their mental status.

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## REFERENCE

1. Khetan MS, Vaishnao LS, Kewalramani M. Effect of lockdown due to COVID-19 pandemic on mental health of pre-medical students of Maharashtra [Internet]. Vol. 7, International Journal Of Community Medicine And Public Health. 2020. p. 3524. Available from: <http://dx.doi.org/10.18203/2394-6040.ijcmph20203917>
2. Lovibond PF, Lovibond SH. The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behav Res Ther.* 1995 Mar;33(3):335–43.
3. Kahn JS, McIntosh K. History and recent advances in coronavirus discovery. *Pediatr Infect Dis J.* 2005 Nov;24(11 Suppl):S223–7, discussion S226.
4. Wang X, Mousavi R, Hong Y. The Unintended Consequences of Stay-at-Home Policies on Work Outcomes: The Impacts of Lockdown Orders on Content Creation [Internet]. SSRN Electronic Journal. Available from: <http://dx.doi.org/10.2139/ssrn.3739572>
5. Zhang SX, Wang Y, Jahanshahi AA, Li J, Schmitt VGH. Early evidence and predictors of mental distress of adults one month in the COVID-19 epidemic in Brazil. *J Psychosom Res.* 2021 Mar;142:110366.
6. Princeton B, Santhakumar P, Prathap L. Awareness on Preventive Measures taken by Health Care Professionals Attending COVID-19 Patients among Dental Students. *Eur J Dent.* 2020 Dec;14(S 01):S105–9.
7. Mathew MG, Samuel SR, Soni AJ, Roopa KB. Evaluation of adhesion of *Streptococcus mutans*, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: randomized controlled trial. *Clin Oral Investig.* 2020 Sep;24(9):3275–80.
8. Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. *J Oral Pathol Med.* 2019 Apr;48(4):299–306.
9. R H, Hannah R, Ramani P, Ramanathan A, Jancy MR, Gheena S, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene [Internet]. Vol. 130, Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. 2020. p. 306–12. Available from: <http://dx.doi.org/10.1016/j.oooo.2020.06.021>
10. Antony JVM, Ramani P, Ramasubramanian A, Sukumaran G. Particle size penetration rate and effects of smoke and smokeless tobacco products - An invitro analysis. *Heliyon.* 2021 Mar 1;7(3):e06455.



11. Sarode SC, Gondivkar S, Sarode GS, Gadbail A, Yuwanati M. Hybrid oral potentially malignant disorder: A neglected fact in oral submucous fibrosis. *Oral Oncol.* 2021 Jun 16;105390.
12. Hannah R, Ramani P, WM Tilakaratne, Sukumaran G, Ramasubramanian A, Krishnan RP. Author response for "Critical appraisal of different triggering pathways for the pathobiology of pemphigus vulgaris—A review" [Internet]. Wiley; 2021. Available from: <https://publons.com/publon/47643844>
13. Chandrasekar R, Chandrasekhar S, Sundari KKS, Ravi P. Development and validation of a formula for objective assessment of cervical vertebral bone age. *Prog Orthod.* 2020 Oct 12;21(1):38.
14. Subramanyam D, Gurunathan D, Gaayathri R, Vishnu Priya V. Comparative evaluation of salivary malondialdehyde levels as a marker of lipid peroxidation in early childhood caries. *Eur J Dent.* 2018 Jan;12(1):67–70.
15. Jeevanandan G, Thomas E. Volumetric analysis of hand, reciprocating and rotary instrumentation techniques in primary molars using spiral computed tomography: An in vitro comparative study. *Eur J Dent.* 2018 Jan;12(1):21–6.
16. Ponnulakshmi R, Shyamaladevi B, Vijayalakshmi P, Selvaraj J. In silico and in vivo analysis to identify the antidiabetic activity of beta sitosterol in adipose tissue of high fat diet and sucrose induced type-2 diabetic experimental rats. *Toxicol Mech Methods.* 2019 May;29(4):276–90.
17. Sundaram R, Nandhakumar E, Haseena Banu H. Hesperidin, a citrus flavonoid ameliorates hyperglycemia by regulating key enzymes of carbohydrate metabolism in streptozotocin-induced diabetic rats. *Toxicol Mech Methods.* 2019 Nov;29(9):644–53.
18. Alsawalha M, Rao CV, Al-Subaie AM, Haque SKM, Veeraraghavan VP, Surapaneni KM. Novel mathematical modelling of Saudi Arabian natural diatomite clay. *Mater Res Express.* 2019 Sep 4;6(10):105531.
19. Yu J, Li M, Zhan D, Shi C, Fang L, Ban C, et al. Inhibitory effects of triterpenoid betulin on inflammatory mediators inducible nitric oxide synthase, cyclooxygenase-2, tumor necrosis factor-alpha, interleukin-6, and proliferating cell nuclear antigen in 1, 2-dimethylhydrazine-induced rat colon carcinogenesis. *Pharmacogn Mag.* 2020;16(72):836.
20. Shree KH, Hema Shree K, Ramani P, Herald Sherlin, Sukumaran G, Jeyaraj G, et al. Saliva as a Diagnostic Tool in Oral Squamous Cell Carcinoma – a Systematic Review with Meta Analysis [Internet]. Vol. 25, Pathology & Oncology Research. 2019. p. 447–53. Available from: <http://dx.doi.org/10.1007/s12253-019-00588-2>
21. Zafar A, Sherlin HJ, Jayaraj G, Ramani P, Don KR, Santhanam A. Diagnostic utility of touch imprint cytology for intraoperative assessment of surgical margins and sentinel lymph nodes in oral squamous cell carcinoma patients using four different cytological stains. *Diagn Cytopathol.* 2020

Feb;48(2):101–10.

22. Karunagaran M, Murali P, Palaniappan V, Sivapathasundharam B. Expression and distribution pattern of podoplanin in oral submucous fibrosis with varying degrees of dysplasia – an immunohistochemical study [Internet]. Vol. 42, Journal of Histotechnology. 2019. p. 80–6. Available from: <http://dx.doi.org/10.1080/01478885.2019.1594543>
23. Sarode SC, Gondivkar S, Gadbail A, Sarode GS, Yuwanati M. Oral submucous fibrosis and heterogeneity in outcome measures: a critical viewpoint. *Future Oncol.* 2021 Jun;17(17):2123–6.
24. Raj Preeth D, Saravanan S, Shairam M, Selvakumar N, Selestin Raja I, Dhanasekaran A, et al. Bioactive Zinc(II) complex incorporated PCL/gelatin electrospun nanofiber enhanced bone tissue regeneration. *Eur J Pharm Sci.* 2021 May 1;160:105768.
25. Prithiviraj N, Yang GE, Thangavelu L, Yan J. Anticancer Compounds From Starfish Regenerating Tissues and Their Antioxidant Properties on Human Oral Epidermoid Carcinoma KB Cells. In: PANCREAS. LIPPINCOTT WILLIAMS & WILKINS TWO COMMERCE SQ, 2001 MARKET ST, PHILADELPHIA ...; 2020. p. 155–6.
26. Ko S, Rossen S. *Teaching Online: A Practical Guide.* Routledge; 2010. 472 p.
27. Elmer T, Mephram K, Stadtfeld C. Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PLoS One.* 2020 Jul 23;15(7):e0236337.
28. Patel SS, Webster RK, Greenberg N, Weston D, Brooks SK. Research fatigue in COVID-19 pandemic and post-disaster research: Causes, consequences and recommendations. *Disaster Prev Manag.* 2020 Jun 22;29(4):445–55.