Psychosocial and physical health consideration in working officials during COVID-19 outbreak: A Survey Study

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Abstract

During the time of covid 19 pandemics, psychosocial and physical health has been the main concern area in the working population. And it has brought the vulnerable population into focus. The aim of conducting the survey is to explore the impact of this unprecedented situation on the psychosocial as well as physical health of the employed population. We conduct an online survey among the working officials which includes health care workers, students, and teachers, etc. to understand the effect of covid 19 on their psychosocial and physical health. The data collected were analyzed through quantitative and qualitative methods.Result of the 170 participants, 55.3% people experienced headache and neck pain but on the other hand about 24.7% of participants rate their quality of life 7 out of 10. The studies show that the people were quite active to maintain their physical health (38%). Also, most of the participants (35.9%) were concerned about their academic performance and about 38.2% were worried about their loved one's health. This survey shows near about 72.4% of the participants had good relations with their family and peers while they also received high support from them.Because of the long Lasting pandemic situation and numerous measures such as lockdown and work from home, covid 19 imposed a negative impact on the physical health. And the mental health got slightly disturbed by academic issues among the students and working pattern fluctuations among the working officials. Apart from this people were very concerned about the well-being of their loved ones.

Keywords

Covid-19, pandemic, working official, physical impact, psychosocial impact, mental health

1. INTRODUCTION

Coronaviruses are a variegated group of viruses that are capable of infecting a variety of animals but can also lead to various degrees of respiratory complications in humans.[(1)]Coronaviruses are a type of RNA virus of the sub-family Coronavirinae. And they belong to the family Coronaviridae and order Nidovirales. The order nidovirales is a large family consisting of all the subfamilies such as Coronaviridae, Arteriviridae, Mesoviridae and Roniviridae.[(2)] Back in 2002 and 2012, the coronavirus surfaced as a newly discovered global health concern for the 21st century when two strains of coronavirus namely, SARS-CoV and MERS-CoV, with a zoonotic origin and high pathogenicity began causing life-threatening respiratory illness in humans.Afterward, near the end of the year 2019, a novel coronavirus (SARS-CoV-2) emerged as a deadly outbreak in the city of Wuhan, China spreading viral pneumonia. This novel coronavirus also known as COVID-19 has spread all over the world at a very high pace and is highly transmissible.[(1)]In India, the first case of COVID-19 was reported on 30th January 2020, which was originated from China and now India has the highest number of confirmed cases in Asia. The clinical presentation of COVID-19 symptoms is higher in men compared to women. Habits such as smoking and alcohol consumption have a significant contribution towards the high prevalence of COVID-19 in men.[(3)]

Coronavirus spread from man to man and there is no evidence of any zoonotic transmission. The common route of man to man transmission is direct transmission, contact transmission, and airborne transmission through infected aerosol and during any medical procedure. It usually spreads from close contact with covid-19 infected person's cough, sneeze, droplet inhalation, oral, nasal, and eye mucous membranes. It has been

reported that the healthcare workers and flight attendants who are in close contact with those infected patients have been tested positive for coronavirusinfection. The viral load is higher and of longer duration in severe patients.[(2)].In symptomatic patients, the known symptoms seen are fever, cough, and myalgia ranging to as severe as respiratory failure. Covid-19 is diagnosed by confirmatory test Reverse Transcriptase PCR. The management approaches used are mainly Supportive therapy followed by mechanical ventilation, which is used in severe cases only.[(2)]

Usually, chest radiographs do not hold a high value in diagnosing the condition in the early stages rather they are more significant in intermediate to advanced stages of COVID-19.The chest x-ray of a patient with COVID-19 shows an increased lung density i.e. intense whitenessalong with Ground glass opacity and linear opacities. The Lung markings in severe cases usually become invisible due to consolidation. Therefore the combination of chest radiography and laboratory test can be considered as an effective tool in the accurate diagnosis of COVID-19 even in the early stages.[(4)]

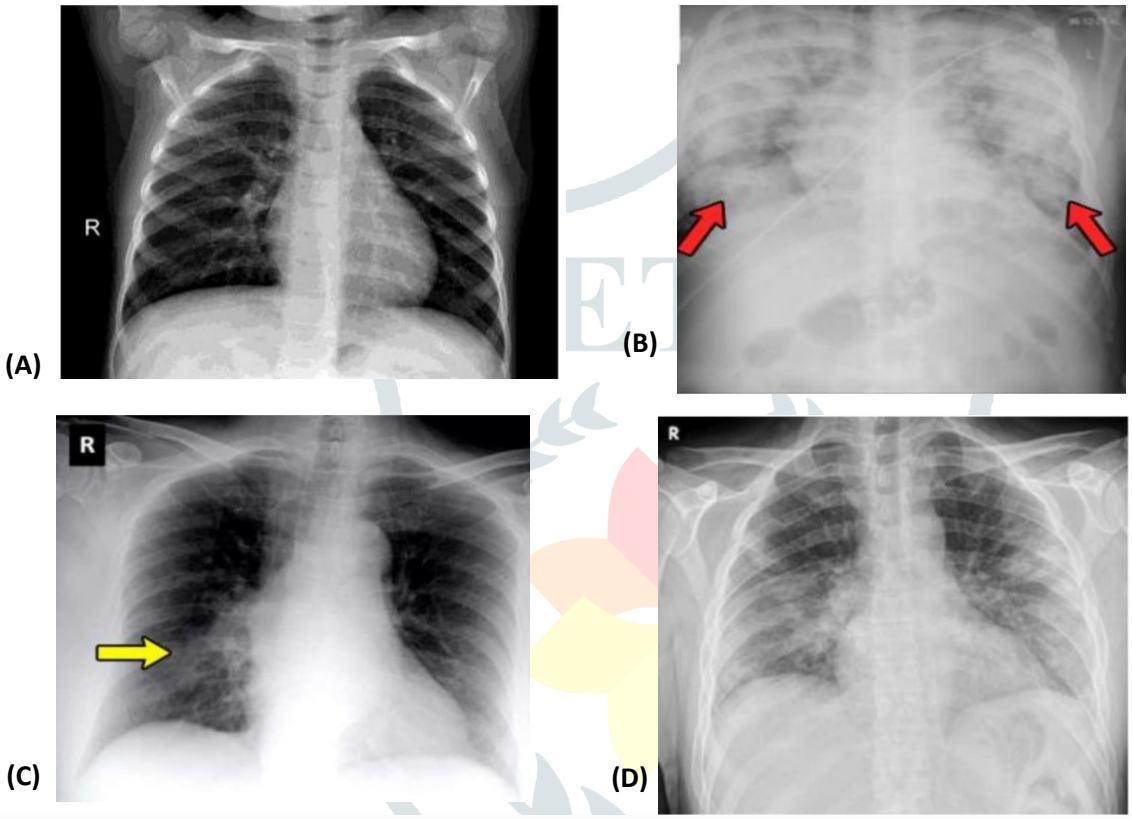

Figure 1. A. Normal chest x-ray B. Consolidation C. Ground glass opacity D. COVID-19 pneumonia

Chest CT scan is the most sensitive radiological findings. And the CT scan of the patient infected with COVID-19 showed the following findings such as ground-glass opacity, ill-defined chest margin, smooth or irregular interlobular septal thickening, air Broncho gram, crazy paving, and thickeningof the adjacent pleura.[(2)] It has been suggested as per the existing literature that other than respiratory illness, COVID-19 may also induce various types of mental health problems in the affected population such as stress, anxiety, sleep disorders, irritation, depression, and many more.[(5)] To combat the COVID-19, forced quarantine has resulted in a nationwide lockdown. And it has been studied that living under prolonged lockdown can result in anxiety, paranoia, acute panic, and post-traumatic stress disorder. The psychological impact of COVID-19 has not only led to economic burden but also mass hysteria and devastating financial losses.[(6)] The normal chest X ray, consolidation, ground glass opacity and covid-19 Pneumonia X ray reports are shown in **figure 1 (A,B,C and D)** respectively.

With mental health conditions, some factors like age, gender, residential setting, physical health status, education, occupational, contact with the affected population, availing health services, social media, personal protective precautions, etc., might further elicit the mental disturbance during COVID-19. The high infectivity and fatality rates of COVID-19 have been reported to be more profound among the frontline workers such as health care professionals, policemen, bankers, armed forces, etc. This ultimately leads to a negative impact on their mental well-being as well as lays the foundation of discrimination, fear of isolation among the affected population.[(7)] It has been analyzed that fever (85%), weakness (70%), and cough (70%)

are the most common symptoms which are usually identified in health care professionals. Even using the PPE kits for the pronged duration can lead to skin damage (97%) and other cutaneous clinical presentations (especially the nasal bridge being the most affected site).[(8)] It has been studied that apart from controlling the rapid spread of COVID-19, the quarantine method also has a severe negative impact on the social participation (Ammar et al., 2020b) and employment status of the population (Ammar et al., 2020d). The sudden implementation of the lockdown and restriction of various services has led to a huge change in the lifestyle of the affected population (Jiménez-Pavón et al., 2020). These sudden changes include physical exercises as well. According to a study done by Ammar et al. (2020a), the home confinement gas led to a significant decrease in the levels of physical exercises as well as an increase of about 28% in the regular sitting time and unhealthy diet patterns.[(9)]. Implementation of an effective exercise regime in daily life even during home confinement is very well capable of not only avoiding transmission of coronavirus but also maintaining the fitness level. Utilizing the internet and mobile technology for accessing exercise videos and health-related information is yet another effective method of taking care of one's physical and mental well-being. Exercises such as stair climbing, leg lunges, squats, pushups, walking, sit-ups, etc. can also be performed other than the traditional yoga approach at home.[(10)]

The following study is based on an online survey-based questionnaire as an approach to investigate the impact on/changes in the psychosocial and physical health of the working officials who continued working from home during the COVID-19 pandemic. This study not only analyzed the changes in the working patterns of the people but also their response towards those changes about their physical and mental health along with lifestyle.

2. SURVEY DESIGN, METHOD, AND MATERIALS:

Due to the tremendous challenges inflicted by the COVID-19, collecting data manually was not appropriate as per the preventive measures. Therefore, we formulated an online survey questionnaire that was favorable for the safety of the participants as well as the confidentiality of the information they contributed to this study. This is a descriptive cross-sectional study. And some responses were collected based on an ordinal scale such as for rating the sleep quality (excellent, good, fair, and poor), how oftenhe/she can overcome the stressful conditions (very often, fairly often, sometimes, and never), etc. A nominal scale has also been used for rating the quality of life on a scale of 1-10.The questionnaire consists of four sections each with a varying set of questions. The first section is based on the basic demographic data of the participants such as their contact information, age, weight, height, marital status, education qualification, profession, etc. The second section consisting of 8 questions and is designed based on effects of work from home on the physical health of the participants such as weight gain/loss, bad posture, sleep quality, physical activity, body pain, and quality of life.[(11)]The third section namely, mental health consists of 6 questions related to the clinical presentation of psychological symptoms such as stress, frustration, depression, ability to handle work-related challenges, and emotional burdens.[(12)] The fourth section is in consideration of the psychosocial impact of COVID-19 on the lives of the participants. It also consists of about 6 questions based on isolation, relationship with the family and peers, financial complications faced by their families, and fear of getting infected.

3. RESULTS

The results obtained from this study based on analysis of the physical, mental, and psychosocial impact of COVID-19 on the participants are presented below:

3.1. PHYSICAL IMPACT:

This section focused on the physical health of the participants (N=170) and consists of 8 questions. In this part of the survey, we discovered that most of the people are having a moderate to a high quality of life. In **figure 2** – The bar graph depicts the quality of life during COVID-19 among the working officials. The x-axis represents the rating of the quality of life from 1-10 i.e. from lowest to highest quality of life. Similarly, the y-axis represents the number of participants who selected those specific ratings.

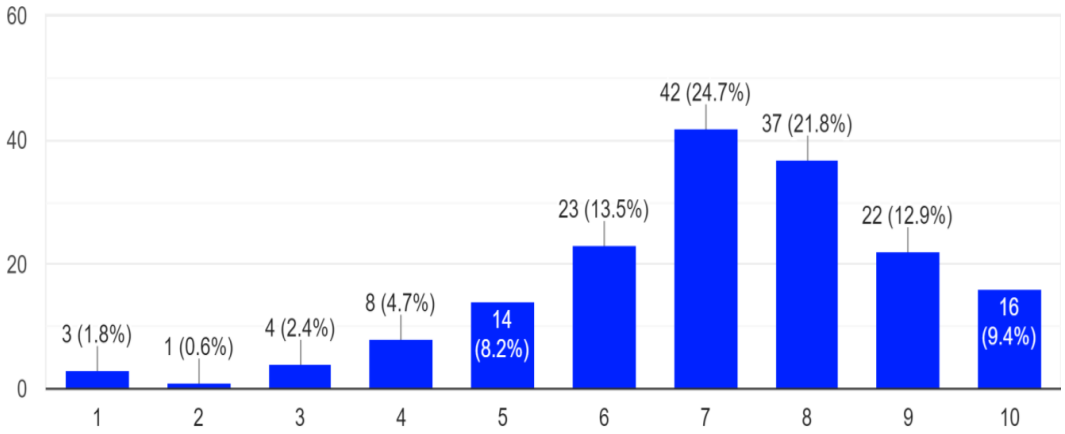

Figure 2: A bar graph depicting the quality of life among the participants.

According to **figure 3**, this dataset helped us analyze that a majority of the participants (38%) are more active in their daily life as compared to before by indulging in regular exercise and yoga routine daily whereas about 32.4% of the respondents followed this measure only once or twice a week. The pie chart in **figure 4** represents that about 61.2% of the participants were able to get a good amount of sleep since the COVID-19 outbreak and only a small number of them (5.3%) suffered a poor sleep quality. But on the other hand, the increased use of mobile phones and laptops during the outbreak led to headaches and irritation in the eyes of the majority as shown in **figure 5.**

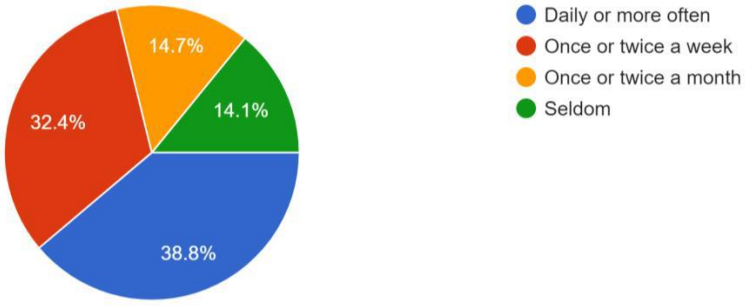

Figure 3: Pie chart representing that how often respondents participated in exercises like Zumba, yoga, or any other physical activity.

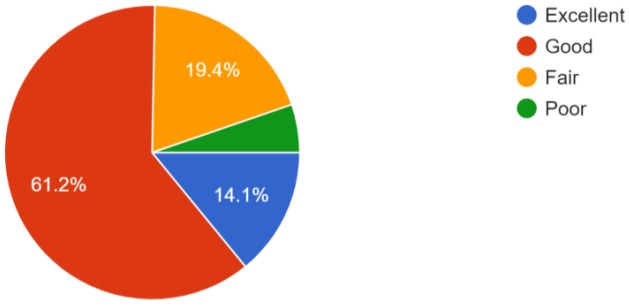

Figure 4: Pie chart representing the sleep quality of the participants since the COVID-19 outbreak.

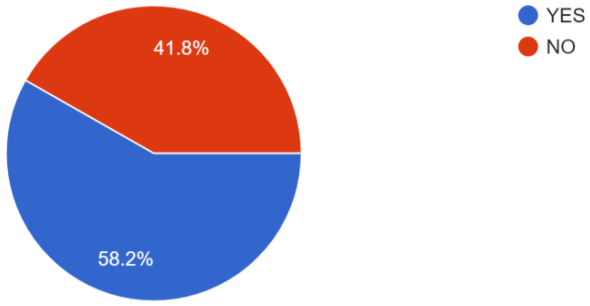

Figure 5: Pie chart depicting whether the participants started experiencing irritation in the eyes or not due to increased screen time since the COVID-19 outbreak.

3.2. MENTAL HEALTH:

This section consists of 6 questionsconsidering the mental health of the working officials (N=170). **Figure 6.** reveals the data collected regarding the potential reasons that harmed the mental health of the respondents.

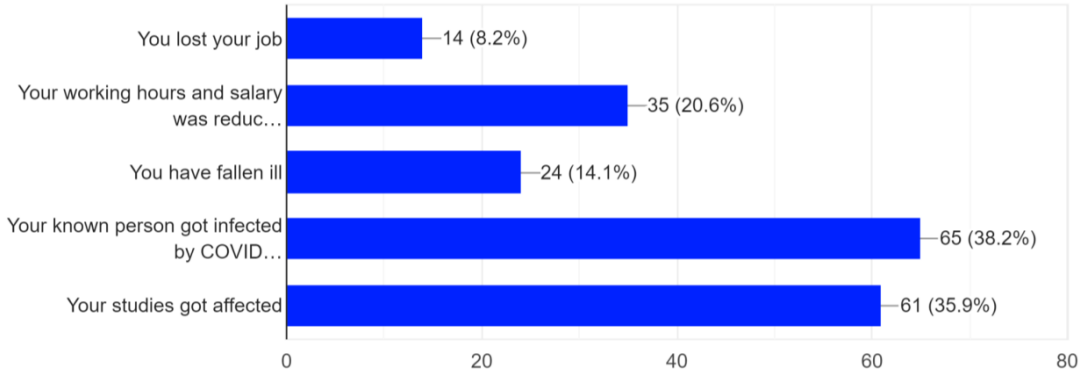

Figure 6: Graph displaying the potential reasons for the negative impact on the mental health of the participants.

The pie chart in **figure 7** displays that about 67.6% of the participants(majority) seldom faced depression, anxiety, and nervousness during the COVID-19 pandemic. According to the data represented by **figure 8**, only 7.6% of the participants were reported to have faced difficulty in controlling the important things in their lives very often from a psychological point of view specifically due to the emergencies imposed by COVID-19 whereas the majority (66.5%) of them only faced this dilemma sometimes.

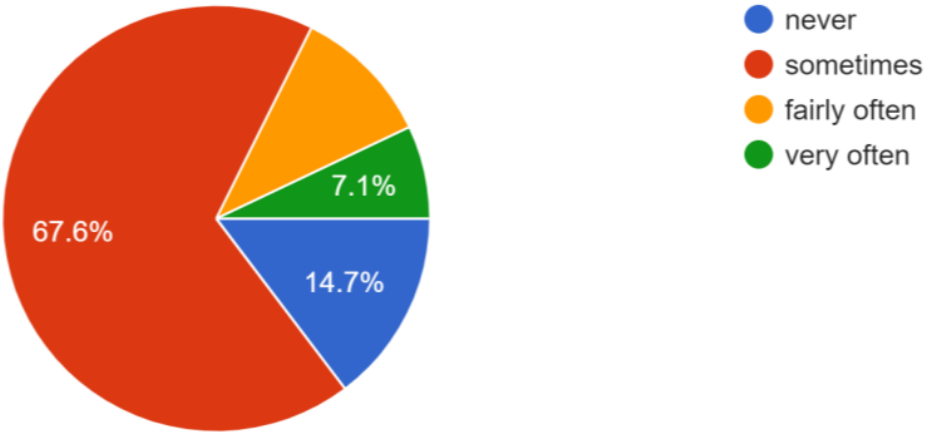

Figure 7: Chart representing the data of the participants regarding how often they felt sad/ Depressed/anxious/nervous since the COVID-19 outbreak

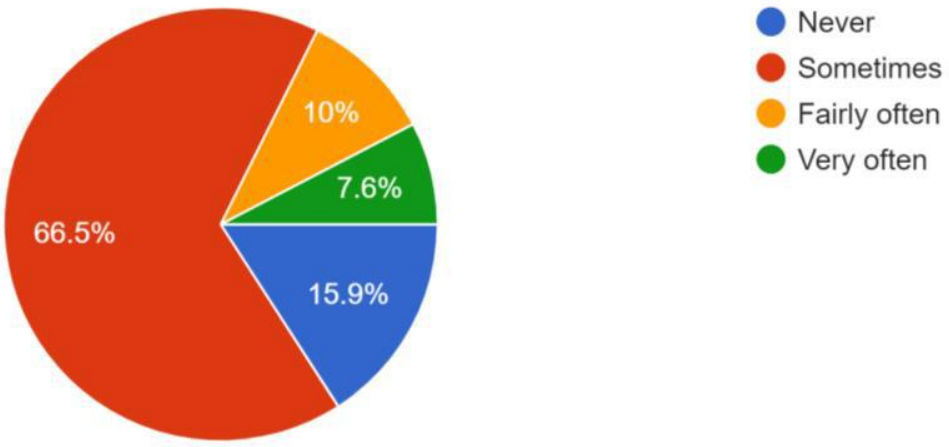

Figure 8: Pie chart displaying how often the participants were unable to control the important things in their lives.

3.3. PSYCHOSOCIAL IMPACT:

This section of the survey assessed the problems faced by the respondents (N=170) concerning their family, peers, and community interactions. **Figure 9** represents that the financial status of about 20.6% of the participants was not affected at all during the COVID-19 outbreak. It also depicts that the majority of the respondents (48.2%) were only mildly affected by the financial crisis faced by their families during that period. Although the pandemic altered the livelihood of the population, still the people were able to withstand the feelings of isolation and loneliness because they were constantly accompanied by their family, friends, and colleagues. As displayed in **figure 10**, the majority (39.4%) of the respondents never felt isolated or alone while working from homefollowed by 38.8% of the participants for whom such instances occurred only sometimes.

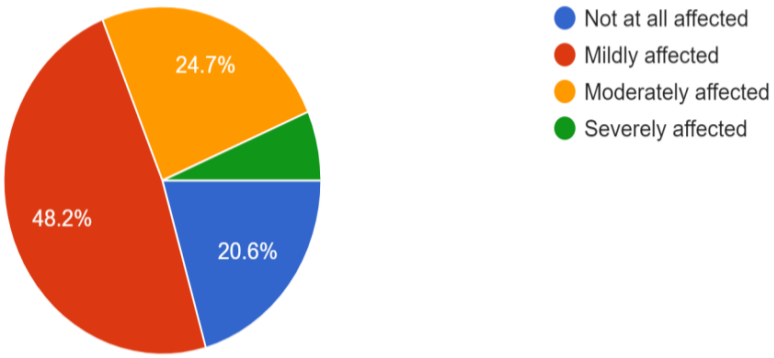

Figure 9: Pie chart depicting the severity of financial crisis faced by the respondents and their families during the COVID-19 outbreak.

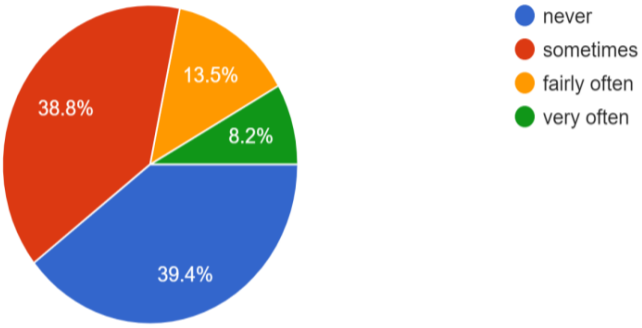

Figure 10. Pie Chart representing how often the respondents felt isolated or alone during work from home since the COVID-19 outbreak.

4. DISCUSSION

The COVID-19 outbreak led to the urgent imposition of a worldwide lockdown. But even after the gradual resumption of daily activities, many people have yet to achieve their usual normal pace of livelihood. The objective of this study is to analyze the three major impacts of the COVID-19 pandemic namely- physical, mental, and psychosocial on the lives of the working officials who continued working despite the critical pandemic circumstances. We have collected a sample size of N=170 which consists of males (N=82, 48.2%) and females (N=88, 51.8%). The various working officials included in this dataset are as follow; Student (N=53, 31.2%), Teaching officials (N=21, 12.4%), Bank or Office worker (N=30, 17.6%), Healthcare worker (N=28, 16.5%), Business (N=12, 7.1%), others (N=26, 15.5%).

During the pandemic, most people either adapted to work from home as in working officials or studying through an online platform as in students. Although it had its perks still gave roots to several negative consequences about health. As per the data collected from the physical health section of the questionnaire, although many people have gained weight from 1 to 10 kg (46.5%) due to being home-bound, this has led toawareness among them regarding the importance of maintaining health and has given them enough time to work upon it. The collected data shows that most of the people were physically active and started indulging in-home workout sessions, yoga, and Zumba. And almost 38.3% of the participants have been doing physical activities more often, some even daily. Work from home became a new trend during this COVID-19 outbreak which contributed to an increased screen time on gadgets such as mobile phones and laptops due towhich the participants have reported irritation in the eyes (58.2%) as well as headache and neck pain (55.3%) although no major musculoskeletal problems have been reported. According to the dataset of the mental health section of the questionnaire, it was analyzed that the studies of 35.9% students got affected, about 38.2% of the participants were worried about their close acquaintances getting infected,8.2% of the participants lost their jobs due to the pandemic and some even experienced fluctuations in their working hours besides reduction in salaries (20.6%). Due to all these reasons, 48.2% of the respondents are reported to have suffered not just mental health issues but financial issues as well.

Through the study on the psychosocial component of wellbeing, we were able to analyze that despite the life-threatening pandemic situation, among the participants 39.4%got an opportunity to spend some quality time with their families which prevented them from feeling lonely and isolated, about 72.4% got good support from their families and friends and about 47.6% were even able to contact their relatives and friends occasionally despite the lockdown. All these factors playeda crucial role in nourishing their mental health and prevented the birth of suicidal thoughts.

The pandemic has indeed taken a toll on the lives of the population globally but it has also necessitated the maintenance of physical, mental, and psychosocial wellbeing. Even the smallest of daily activities such as a healthy diet, good sleep quality, and regular exercising in the leisure time can have a tremendous positive effect and contribution to good health. Apart from this, necessary information regarding the ongoing spread of coronavirus and its preventive measures can also aid the safety of the individual.

5. CONCLUSION

The sudden outbreak of the COVID-19 pandemic globally, has had a devastating effect on the population not just concerning their physical and mental well-being but also the psychosocial aspects of their lives. Work from home has not only proved to be an efficient method of safety measures but also as an encouragement to the people to pay attention to their health by promoting participation in various physical activities such as yoga, Zumba, and other exercises. Although the increased screen time at home has affected the eyes negatively but it can be controlled by including short rest intervals in between the working hours. In terms of mental health, only a small fraction of the people were affected by the emergencies during the outbreak. Although the community interactions also got highly reduced during the pandemic to enable precautions among the population but it presented an opportunity to spend more time with the family and it played crucial role maintenance of both mental and psychosocial health.

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