



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; SP-12(7): 55-61
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www.thepharmajournal.com
Received: 17-05-2023
Accepted: 21-06-2023

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Assessment of lifestyle changes among young adults in post-COVID-19

Jyoti Jaiman, Dr. Sumitra Meena and Dr. Vishakha Singh

Abstract

The COVID-19 pandemic has left an indelible mark on global society, profoundly impacting various aspects of human life, including diet, lifestyle, and mental health. This prospective observational study aimed to investigate the nutritional status and lifestyle changes among young adults in the aftermath of the SARS-CoV-2 pandemic. The sample comprised 120 respondents, equally distributed between males and females aged 21-30 years, who had recovered from COVID-19 in Udaipur, India. The findings revealed significant lifestyle changes among the respondents. While some demonstrated improvements in nutritional status, others faced challenges due to altered meal patterns and meal skipping. Increased adoption of physical activities such as home aerobics, yoga, and walking showed potential benefits for physical and mental health. However, lack of motivation and social restrictions posed barriers to regular physical activity.

Keywords: COVID-19, lifestyle, nutrition, diet.

Introduction

In December 2019, a mysterious outbreak of pneumonia in Wuhan, China marked the onset of a global health crisis. Linked to the Huanan Seafood Wholesale Market, the cause was soon identified as a novel coronavirus, termed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), related to SARS-CoV. Since its emergence, SARS-CoV-2 has spread worldwide, inducing a wide spectrum of symptoms from mild to severe, with a notable number of asymptomatic carriers. To curb the virus spread, face mask usage became widespread alongside various social restrictions, posing new challenges. Prolonged school closures exposed young people to feelings of anxiety, loneliness, and uncertainty, while women faced heightened stress and reported domestic violence.

Mental health services encountered disruptions during the pandemic, leaving many vulnerable individuals without adequate support. Post-COVID-19 recovery revealed lingering symptoms, leading to the identification of post-COVID-19 syndrome or long COVID-19, highlighting the importance of overall health and well-being. The significance of maintaining a strong immune system gained prominence during the COVID-19 crisis. Researchers worldwide pursued vaccine development, though challenges persisted. Antimicrobial resistant infections emerged as additional concerns. Nutrition's role in bolstering immune health became vital, with a balanced and personalized diet playing a critical role. Optimal nutrition, encompassing essential nutrients such as zinc, iron, and vitamins A, C, and E, influenced immune function through gene expression and gut microbial composition.

In conclusion, the COVID-19 pandemic underscored the importance of nutrition and lifestyle in supporting resilience and immune health. Encouraging healthy lifestyles and addressing mental health concerns are paramount for confronting present challenges and preparing for future health threats, securing a healthier and more resilient global community.

2. Methodology

The total sample for the present investigation consisted of 120 respondents. The sample was further classified as male and female with 60 samples respectively. Then, to collect data, questionnaire was developed by the investigator related to finding out changing lifestyle pattern among young adults in the areas of changing lifestyle post-COVID pandemic, change in junk food consumption, activities included in daily routine, physical activity regime post-COVID, change in sleeping pattern, change in stress and anxiety level post-COVID.

3. Results and Discussion

The study shows about the lifestyle changes among young adults in post-COVID-19 and the following are the results obtained by the trials.

COVID period is very much sensitive time for every age group. In this period changes had been seen in dietary patterns of every person. Distribution of reasons for changing lifestyles post-COVID pandemic has been presented in Table 1.

Reason for changes in dietary pattern with the time: The

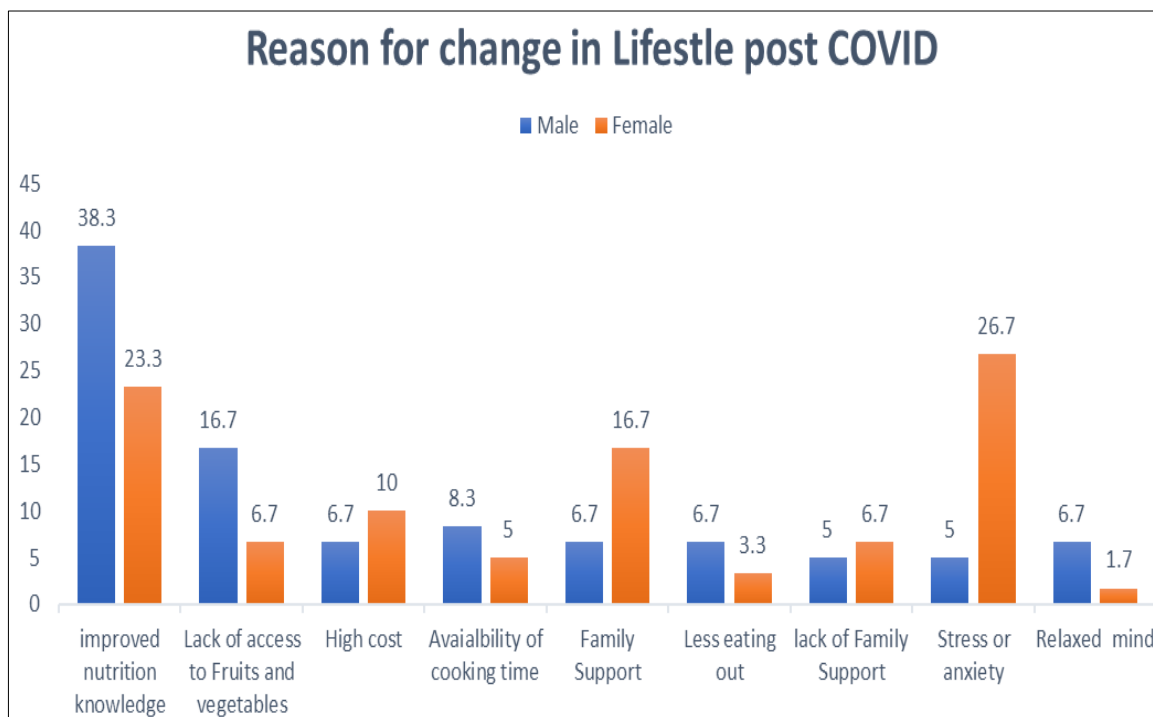


Fig 1: Percentage distribution of respondents based on the reason for change in lifestyle post COVID.

COVID pandemic has brings the so many changes in individuals' lifestyles. Various reasons affect the nutritional status as well as eating habits. Table 1 indicates that majority of the male respondents (38.30%) change their lifestyle due to improved knowledge about nutrition whereas maximum numbers of the female respondents (26.70%) change the lifestyle according to facing stress and anxiety. Respondents were changed the lifestyle due to various reasons i.e., Lack of

access to fresh fruits and vegetables, Higher cost of ingredients, more available cooking time, better family support, less eating out, lack of family support and relaxed mind.

Reasons for change in junk food consumption- The data related to reasons for changes in junk food consumption has been presented in Table 2.

Table 1: Distribution of reasons for changing lifestyle post-COVID pandemic n=120

Reason	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
Improved knowledge about nutrition	23 (38.3)	14 (23.3)
Lack of access to fresh fruits and vegetables	10 (16.7)	4 (6.7)
Higher cost of ingredients	4 (6.7)	6 (10.0)
More available cooking time	5 (8.3)	3 (5.0)
Better family support	4 (6.7)	10 (16.7)
Less eating out	4 (6.7)	2 (3.3)
Lack of family support	3 (5.0)	4 (6.7)
Stress and anxiety	3 (5.0)	16 (26.7)
Relaxed mind and no change	4 (6.7)	1 (1.7)

Table 2: Distribution of reason for change in junk food consumption, N=120

Reason for changes in junk food consumption	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
Fear of coronavirus spread through food	23 (38.3)	9 (15.0)
Non-availability of cook	4 (6.7)	2 (3.3)
Less eating out/socializing	8 (13.3)	6 (10.0)
Availability of cooking time	2 (3.3)	1 (1.7)
Preferring home	8	9

cooked food	(13.3)	(15.0)
Focus on eating healthy to build immunity	6 (10.0)	12 (20.0)
Managing food craving using different techniques such as listening to songs, taking a walk	4 (6.7)	8 (13.3)
Lack of family support	2 (3.3)	7 (11.7)
Stress and/or anxiety	3 (5.0)	4 (6.7)
Any other, please specify	0 (0.0)	2 (3.3)

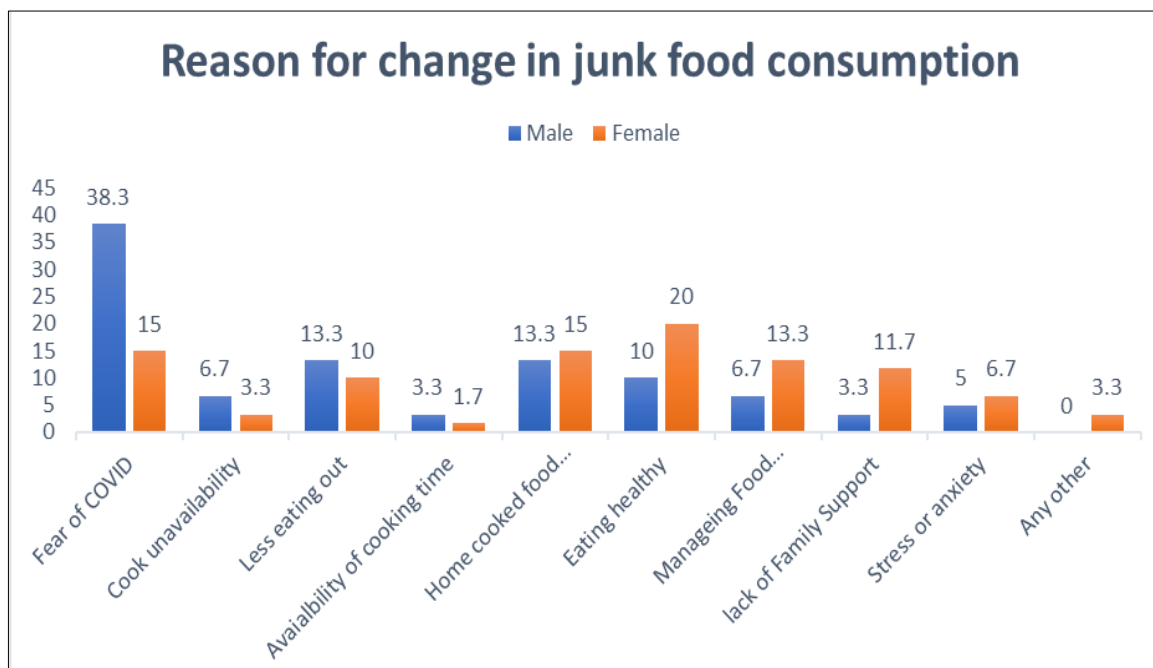


Fig 2: Percentage distribution of respondents based on the reason for change in junk food consumption.

Junk food negatively affects the human health during COVID period people were avoiding or banned to prefer junk food due to harmful effects on health. Table 2 shows that majority of the male respondents (38.30%) changed their junk food eating habits due to Fear of coronavirus spread through food while 20.0 per cent female respondents focuses on eating healthy to build immunity while maximum number of female respondents changed the preference in having fast food due to Focus on eating healthy to build immunity. Apart from these reasons, some of the reasons to change in junk food consumption i.e. Non-availability of cook, Less, eating

out/socializing, Availability of cooking time, Preferring home-cooked food, Managing food craving using different techniques such as listening to songs, taking a walk, Lack of family support, stress and/or anxiety etc.

Increase physical activity included: Respondents tried to be fit after COVID and had become more conscious about their health so respondents adapted so many types of physical activity. Distribution of the activities included in daily routine by the respondents has been presented in Table 3.

Table 3: Distribution of the activities included in daily routine by the respondents, N=120

Name of the activity	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
At-home aerobics	6 (10.0)	8 (13.3)
Yoga	15 (25.0)	11 (18.3)
At-home workout videos	9 (15.0)	11 (18.3)
Gyming (treadmill, cycle and weights)	11 (18.3)	7 (11.7)
Walks	10 (16.7)	14 (23.3)
At home dancing and stretching	6 (10.0)	5 (8.3)
Not doing any activities	2 (3.3)	4 (6.7)
Any other	1 (1.7)	0 (0.0)

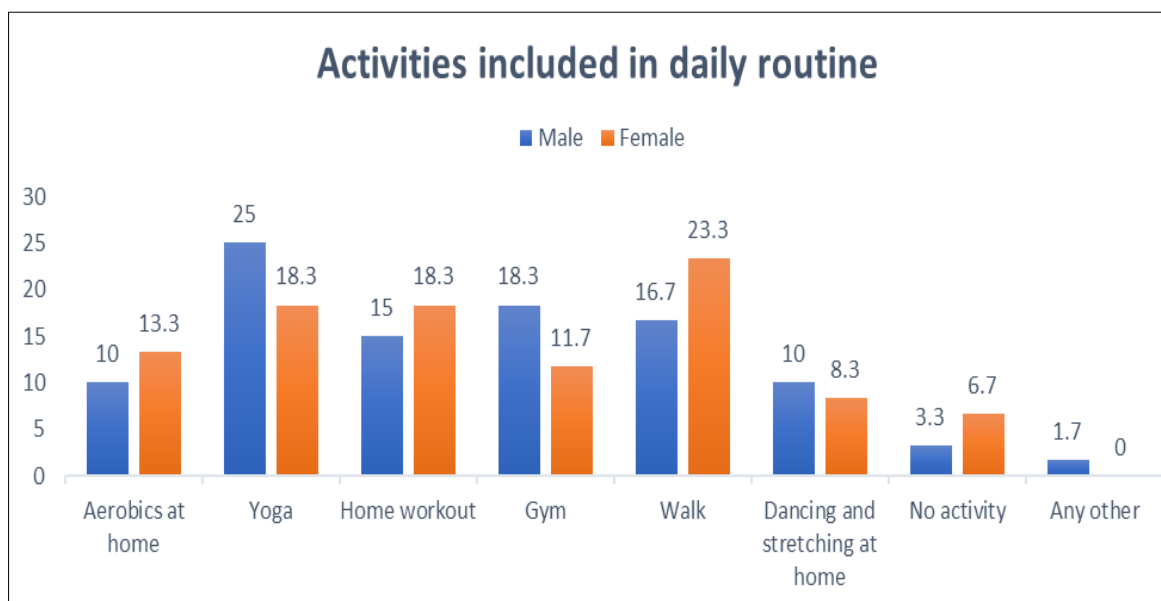


Fig 3: Percentage distribution of respondents based on the activities included in daily routine

Data presented in Table 3 shows that one-fourth of the male respondents were following yoga in their daily routine 18.30 per cent, 16.70 per cent, 15.0 per cent male respondents included gyming, walks and at homework out videos respectively. An equal number of the respondents (10.0%) followed at home aerobics and at home dancing and stretching.

The data regarding female respondents found that 23.30 per cent respondents included walks in their daily activity. equal distribution can be seen in the following Yoga and at homework out videos 13.30 per cent respondents included at home aerobics in daily routine. 11.70 per cent respondents prefer gyming to be fit during and after COVID.

Changes in physical activity regime: After this COVID period various changes has been seen in the physical activity.

Reasons of changes in this regime has been presented in table 4.

Table 4: Distribution of the respondents by reasons for changes in physical activity regime n=120

Reasons for changes in regime	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
Lack of motivation	11 (18.3)	5 (8.3)
Lack of knowledge of exercises	17 (28.3)	4 (6.7)
Lack of access to sports facilities and gym	11 (18.3)	16 (26.7)
Social restrictions to parks and public places	9 (15.0)	17 (28.3)
Lack of social support	7 (11.7)	11 (18.3)
Lack of time	5 (8.3)	7 (11.7)

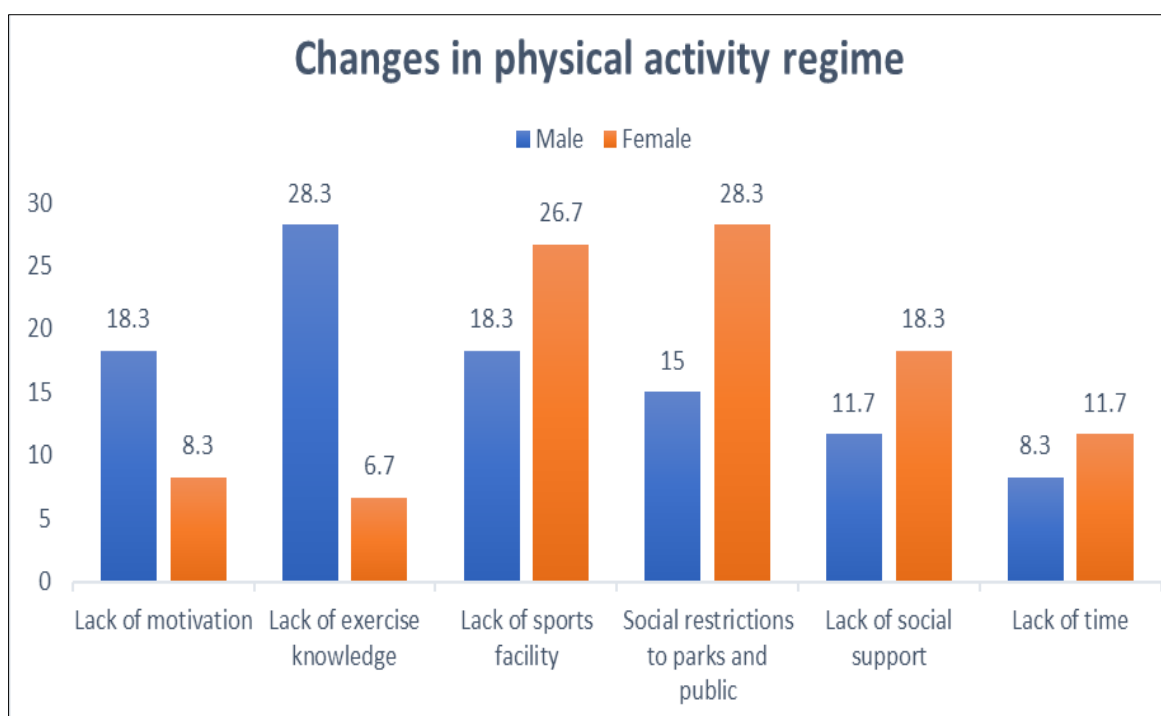


Fig 4: Percentage distribution of respondents based on the reason for changes in physical activity regime

Table 4 shows that more than one-fourth of the male respondents (28.30%) changed their physical activity regime due to lack of knowledge of exercises while an equal number of male respondents (18.30%) quoted that Lack of motivation and Lack of access to sports facilities and gym are the reason to change their physical activity regime. 15.0 per cent respondents change in their activity due to social restrictions to parks and public places while 11.70 per cent of respondents change in their schedule due to lack of social support. Female respondents changed their physical activity regime

due to (28.30%) lack of social support, (26.7%) Lack of access to sports facilities and gym, (18.3%) Lack of social support, (11.7%) lack of time, (8.3%) lack of motivation and (6.70%) lack of knowledge of exercises.

Reasons for changes in sleeping pattern- Sleeping is the most important aspect of the human body clock. An adult need to take 6-8 hrs. Sleep. COVID-19 also affects the sleeping patterns of individuals. Reasons for changes in sleeping pattern has been presented in table 5.

Table 5: Distribution of reasons for changes in sleeping pattern n=120

Reasons for changes in sleeping pattern	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
Daytime sleeping	24 (40.0)	11 (18.3)
Stress and anxiety	11 (18.3)	18 (30.0)
Long working hours	12 (20.0)	11 (18.3)
Environmental factors such as noise and lighting	5 (8.3)	10 (16.7)
Shortness of breath during sleep	2 (3.3)	6 (10.0)
Flexibility in daytime	6 (10.0)	4 (6.7)

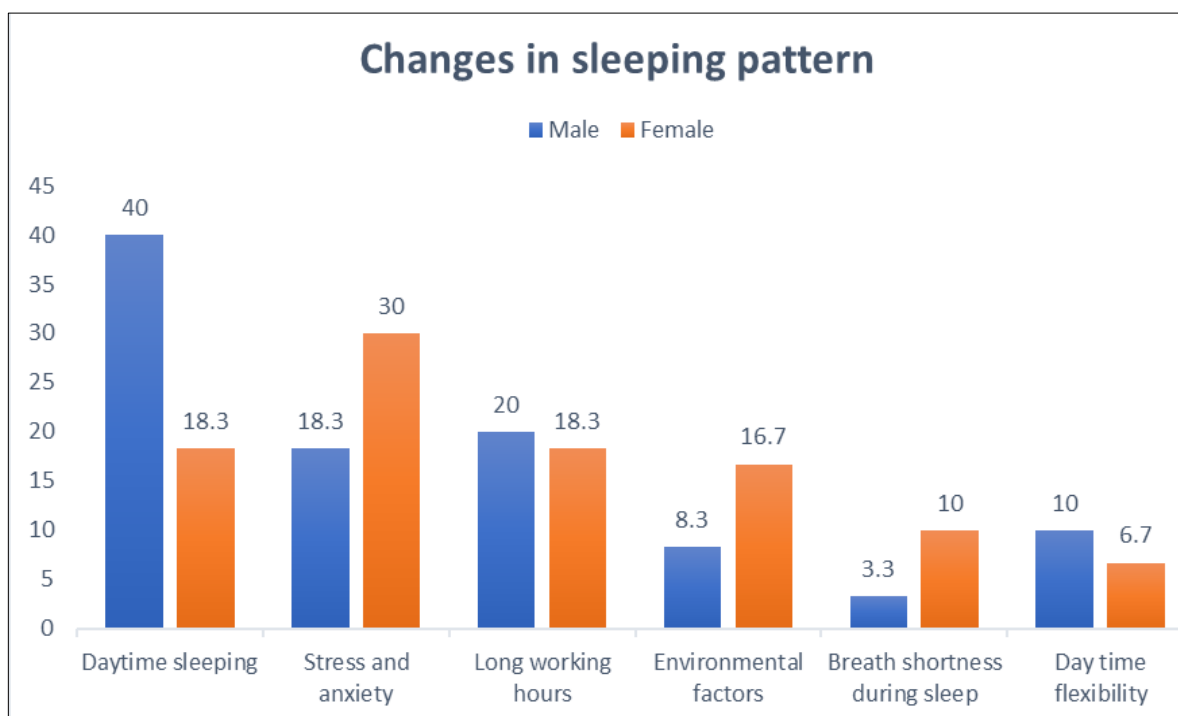


Fig 5: Percentage distribution of respondents based on the reason for changes in sleeping pattern

COVID-19 affects the sleeping pattern of the respondents due to various reasons. Majority of the male respondents (40.0%) changes in their sleeping time due to daytime sleeping during lockdown respondents like to sleep after lunch which affect the sleeping time in night. Sleeping pattern were changed due to long working hours (20.0%), stress and anxiety (18.30%), Flexibility in days' time (10.0%).

The above table shows the data about female respondents, it was found that majority of the respondents (30.0%) changed their sleeping patterns due to stress and anxiety. An equal number of the respondents (18.30%) give the reason to

daytime sleeping and long working hours while 16.7 per cent respondents modified their sleeping time due to Environmental factors such as noise and lighting, 10.0 per cent and 6.7 per cent Shortness of breath during sleep and Flexibility in days' time respectively.

Reasons for change in stress and anxiety levels- Distribution of respondents by reasons for change in stress and anxiety levels post-COVID-19 has been presented in table 6.

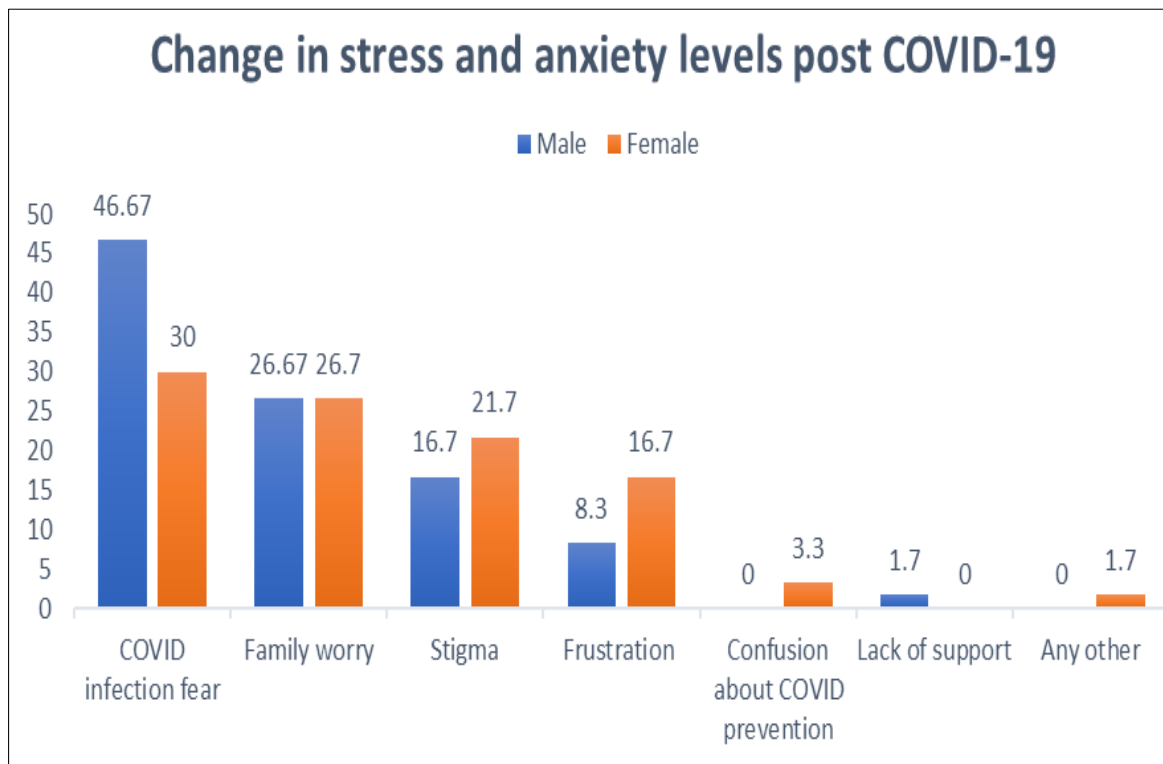


Fig 6: Percentage distribution of respondents based on the reason for change in stress and anxiety levels

Table 6: Distribution of respondents by reasons for change in stress and anxiety levels post COVID-19 n=120

Reasons for change in stress and anxiety levels	Gender	
	Male (N=60)	Female (N=60)
	F (%)	F (%)
Fear of COVID infection	28 (46.67)	18 (30.0)
Worrying about family and friends	16 (26.67)	16 (26.7)
Stigma or discrimination from other people	10 (16.7)	13 (21.7)
Frustration/boredom/loneliness /Financial loss	5 (8.3)	10 (16.7)
Confusion about what COVID-19 is, how to prevent it	0 (0.0)	2 (3.3)
Lack of support from family and friends	1 (1.7)	0 (0.0)
Any other	0 (0.0)	1 (1.7)

The data presented in above table shows that majority of the male respondents (46.67%) change their stress level due to COVID-19 due to fear of COVID infection. Male respondents give the reason due to (26.67%) worrying about family and friends, (16.7%) Stigma or discrimination from other people, (8.3%) frustration/boredom/loneliness /Financial loss.

The above table shows the data about female respondents, it was found that 30.0 per cent respondents changed their stress level due to COVID-19 due to fear of COVID infection while the reason of changes in stress and anxiety level was found (26.7%) Worrying about family and friends, (21.7%) Stigma or discrimination from other people, (16.7%) Frustration/ boredom/loneliness/Financial loss and (3.3%) Confusion about what COVID-19 is, how to prevent it. Nutritional Anthropometry measures the variations of the physical characteristics and the gross composition of the human body at different age and nutrition levels.

Similar observations are also found in the other scientists observations, Health consequences of the COVID-19 pandemic and lockdown are still to be determined comprehensively (Ifdil *et al.*, 2020; Kutlu *et al.*, 2020; Mattioli *et al.*, 2020) [2, 4, 5], but they may concern lifestyles and behaviours (Stanton *et al.*, 2020) [7]. Better knowledge of the factors affecting lifestyles amid lockdown may contribute greatly to designing education campaigns and in organizing

optimum counselling during and after pandemics. The aims of the present study were to assess changes in lifestyles among the French general population in response to COVID-19 lockdown and the influence of COVID-19 perceptions, as assessed by the EPPM, on these changes.

The relationships observed between severity, vulnerability and unhealthy changes in the univariate analysis become non-significant when entered together with lack of fear control in the multivariate model. This finding indicates that threat appraisal may negatively influence changes in lifestyles through uncontrolled fear responses, precluding going out for exercise/walking or prompting emotional overeating. In addition, unhealthy changes were higher among men and respondents with financial difficulties – which may indicate a maladaptive response to stress (Park *et al.*, 2020; Verma and Mishra, 2020) [6, 8].

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