



## EFFECT OF CORONA VIRUS PANDEMIC ON WEIGHT MANAGEMENT AMONG THE GYM GOING FEMALES

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**ABSTRACT:** The COVID-19 pandemic emerged in December 2019 in Wuhan, China, and has since exhibited a fast global dissemination, with the initial case being documented in Karachi on February 26, 2020. Consequently, the virus has disseminated to several places across Pakistan, leading to the exacerbation of a pandemic. The World Health Organization (WHO) has issued a warning to Pakistan, expressing concerns about the country's ability to effectively control the outbreak of the coronavirus in the near future. The closure period is associated with a multitude of challenges, including mental health concerns such as sadness, stress, worry, fear, inactivity, and mental lethargy. Additionally, individuals may have disruptions in their sleep patterns, a lack of motivation, difficulties in finding workout partners, changes in their eyesight, a decline in mood, feelings of boredom, and a need for specialized equipment. The aim of this study is to examine the impact of the Corona Virus pandemic on weight control practices among female individuals who regularly attend gyms in Lahore. The research methodology employed in this study is cross-sectional in nature. The research was carried out within the gymnasiums located in Lahore. The data was collected exclusively from female participants. The researchers employed a convenient sampling strategy. The study's sample size consisted of 80 participants. The findings suggest that there is a negligible and weak negative association ( $r = -.016$ ) between the impact of the coronavirus and weight control in females who regularly attend the gym. Approximately 70% of females demonstrated an understanding of the need of structured physical activity (PA) and actively participated in various exercises. They also acknowledged the positive impact of PA on the physical, social, and mental well-being of women. This study posits that there exists a significant interrelationship between sleeping patterns, eating habits, and weight management, whereby these ideas mutually influence one another when not implemented in a deliberate and strategic manner. This study offers a distinctive perspective on the impact of the pandemic on the weight control practices of female individuals who regularly attend gyms.

**Key words:** Corona Virus, Pandemic, Weight management, Gym.

## INTRODUCTION

The emergence of the Corona Virus in December 2019 in Wuhan, China was initially a mysterious occurrence. However, it has since spread rapidly from Wuhan to other nations. The World Health Organization (WHO) declared it the sixth global public health emergency on January 30, 2020. Furthermore, on March 11, 2020, the WHO upgraded the situation to a pandemic. There is growing concern about the increasing prevalence of the Corona Virus in Pakistan. The first case of the virus was identified in Karachi on February 26, 2020, when the estimated population of Pakistan was around 204.65 million. Since then, the virus has spread to multiple regions throughout the country and has now escalated into a pandemic. The World Health Organization (WHO) has cautioned Pakistan that it may face significant difficulties in dealing with the outbreak of the Corona Virus in the near future (World Health Organization, 2019).

According to National Command Operation Center on March 18, 2020 all movement had stopped due to the first wave of COVID-19 pandemic. Not only in Pakistan but also in the entire country affected by the virus, a countrywide closure was announced on March 18, 2020. Schools, restaurants, and sports facilities were closed and communication was restricted at work and restricted between families. These steps dramatically changed our communication, including the world of sports (Rajaratnam & Arendt, 2020).

There are as many problems with the closure period as mental health issues, depression, stress, anxiety, fear, idleness and mental lethargy, sleep pattern changes, lacking motivation, the role of exercise partners, change of vision, poor mood, boredom, missing equipment etc.

Women were less active physically than men and reported more barriers and fewer promoters in physical activity and experienced more common anxiety than men (Bakar & Rosbi, 2020).

Women who were physically less active subsequent to COVID-19 conveyed significant low mental health outcomes, low level social, emotional and mental improvements, and more common nervousness, while women who did more physical activity had improved mental health scores (Haleem, Javaid & Vaishya, 2020)

It was researched that some challenges that women face especially due to limitations, it is important to promote and provide environmental opportunities and exercise support to reduce the psychological stress that women may experience. Specific activity programs that involve physical activity and that may involve children are encouraged (Clark et al, 2021).

The prevalence of obesity is a worldwide epidemic. The COVID-19 lockdown has contributed to a surge in obesity rates due to various factors. These include overeating, unhealthy dietary choices, disrupted sleep patterns, decreased physical activity and exercise, and increased isolation and loneliness. Consequently, there is a greater need to focus on maintaining good health, fitness, and building healthy habits to combat this issue (Douglas et al., 2020)

Maintaining an ideal weight for body is crucial for reducing the risk of illness and death. To prevent and manage obesity, physical activity, along with modifications in exercise and calorie intake, are considered essential components. A combination of genetic factors, lifestyle factors such as financial status, home and work environments, and social relationships can also play a significant role in developing and modifying weight control strategies (De Figueiredo et al., 2021).

Weight gain is frequently observed during certain periods such as holiday seasons, the COVID-19 lockdown, and winter months. This review highlights critical elements of managing obesity, including proper diet and nutrition, engaging in physical activity and exercise, and implementing lifestyle and environmental changes (Seagle et al, 2019).

Encouraging individuals to adopt healthy lifestyle measures such as maintaining a nutritious diet and increasing physical activity, even within the confines of their homes, can help combat obesity. Additionally, discovering new ways to boost one's mood while isolated can also aid in maintaining a healthy weight (Gee, Mahan & Escott-Stump, 2023).

The pandemic-induced closure of various establishments has resulted in widespread uncertainty about the future, not only for individuals but also for families and communities. With no clearly

defined routine or work schedule, individuals may struggle to prioritize their tasks, leading to feelings of sluggishness and unexplained tiredness. Additionally, the closing gyms along with centers for physical activity, such as parks and stadiums, coupled with the high prevalence of mental health problems, may cause deficiency in motivation to attract towards bodily activity (Liu et al., 2020).

According to the Reynolds, people are encouraged when they see others do hard work and physical activity in gyms. Physical partners along with exercise effort serve as attractive factors for other persons to participate in physical activities and visit gym daily (Sarkodie & Owusu, 2020).

Reynolds in 2020 further describes that increased obesity is caused by COVID-19 and forcing lockdown, which have a significant health effect, leading to overeating and poor nutrition and sleep, as well as a reduction in physical activity and exercise and loneliness, as needed to stay healthy, fit and strong and rebuild some healthy habits. It has to do with the increased risk of serious illness and death. Exercise activities with changes in exercise and calorie intake together are considered foundation in preventing and controlling obesity. It includes the most important aspects of obesity management discussed, such as diet and exercise, lifestyle and environmental changes (Johns et al, 2020).

Globally, the rise in obesity is exacerbated by COVID-19 forcing locks, which has resulted in more people being confined to their homes to overeat, less work, and loneliness. About 60-70% of adults are thought to be overweight or obese due to the recent fatal corona virus pandemic.

To eliminate obesity people, have to eat small but healthy foods, exercise physically at home and find new ways to raise spirits while separated. The COVID-19 pandemic has wreaked havoc on the lives of people worldwide, causing disruption to the daily routines of almost everyone, including those who depend on gyms for their fitness regimen (Rohli, Yang & Jia, 2021). People who are gym goers as a part of an unchanging bustle assess their experience based on their perceptive about the pandemic and how to manage the uncertainty caused by COVID-19 and health problems To eliminate obesity, people need to eat small but healthy meals, exercise at home and find new ways to boost their mood when they are apart. The COVID-19 pandemic has wreaked havoc on everyone's lives around the world. It has disrupted the daily routine of nearly everyone that includes gym-goers in relation to their health program (Pokhrel & Chhetri, 2021).

Individuals who used to visit the gym for regular workouts were asked to evaluate their experience in light of their perceptions of the pandemic to manage uncertainty caused by COVID-19 (Lone & Ahmad, 2020).

Although various measures to reduce inactivity were implemented in some countries between 2018 and 2020, The COVID-19 pandemic had a worldwide impact in 2020, many governments implemented restrictive measures to curb its spread. These measures included isolation, social separation, deferring social events, and the closing schools, campuses, gymnasiums, sports hubs, swimming pools, and public amusement parks in numerous countries (Daniel, 2020). The restrictions imposed as a result of the pandemic have limited opportunities for physical activity among the public. While the pandemic has provided an opportunity for some countries, like Australia, to introduce physical activity and reinforce new habits such as home exercise, it has had a negative impact on many other countries (Pranggono & Arabo, 2021).

Individuals who were more greatly affected by quarantine measures in terms of their physical activity levels also exhibited a higher incidence of symptoms related to depression and anxiety. School and university closures in face of the COVID-19 pandemic have brought increase in inactivity. Additionally, this decline was greater in people who were most active prior to withdrawal (Watkins, 2020).

In children, the researcher discovered that physical activity levels declined during the COVID-19 pandemic, with a more significant reduction observed in older children (9–13 years) compared to younger children (5–8 years) (Padhan & Prabheesh, 2021). Numerous studies have demonstrated that the COVID-19 pandemic had adversely affected bodily exercise in several nation states. Pandemic-related constraints have encouraged people to remain at home, potentially increasing sedentary behavior and screen time. With the pandemic's continued duration, this sedentary lifestyle

may become a long-term habit, which can be particularly concerning for children and adolescents. Consequently, the World Health Organization (WHO) as well as other related organizations ought to explore means to encourage bodily activity and reduce inactive behavior as lethargic in coming times (Suryasa, Rodríguez-Gámez & Koldoris, 2021).

Therefore, we do not deny the value of gyms and physical activity. The significance and advantages of maintaining a healthy lifestyle did not diminish with the outbreak of COVID-19, but rather underwent a significant transformation. Individuals seeking to alleviate stress and maintain their fitness level began searching for alternative methods to exercise and remain physically active from home (Pfefferbaum & North, 2020).

As a result, buying equipment relating to fitness as well as sports increased by almost 23% due to the corona virus pandemic. Some people try to create small gyms at home, but home or virtual workouts just aren't the same experience as real gyms. Limited social interaction, the absence of a trainer or coach, and the lack of professional equipment dramatically affect the overall home gym experience (Hoofman & Secord, 2021).

The topic of reopening gyms has become increasingly divisive with each passing week, with some people even staging protests outside fitness centers. It's evident that many individuals are eager to resume their regular routines. As stay-at-home orders are gradually lifted and cities adopt a phased approach to reopening fitness studios and gyms, more people are considering returning to their workout routines. Despite the challenges posed by the pandemic, the prospect of regularly visiting gyms and fitness centers is becoming increasingly appealing to people (Jain, 2020). Some latest studies in the field of physical educations have been reported in (Bibi, Tabassum, & Mahmood-ul-Hassan, 2020); (Ahmed et al., 2021); (Ahmed, Sadeea, & ul Hassan, 2020); (Babar, Tabassum, Sattar, Hassan, & Karim, 2021); (Tahir et al., 2021); (Iqbal, Aslam, & Ashfaq, 2019); (Asghar et al., 2021); (Hassan, Ahmad, & Tabassum, 2021); (Mazhar et al., 2021); (Fatima, Tabassum, Khan, Mahmood-ul-Hassan, & Karim, 2020)

So that's why we do not deny the value of gyms and physical activity. The spread of COVID-19 has not diminished the significance and benefits associated with living a healthy lifestyle; rather, it has prompted a dramatic shift in the way people approach it. With the goal of reducing stress and staying fit, many individuals have begun to explore new alternatives for exercising and staying physically active from the comfort of their homes (Rahman et al, 2021).

Due to the corona virus pandemic, there has been an increase of nearly 23% in purchases of fitness and sports equipment. While some people have tried to create small home gyms, the experience of a home or virtual workout is not the same as a workout in a real gym. The overall experience can be greatly affected by the limited social interaction, the lack of a coach or trainer, and the scarcity of professional equipment in a home gym (Bostan et al, 2020).

With the lifting of stay-at-home orders and a phased approach to reopening fitness centers and gyms, many people are eager to return to their familiar routines. However, the debate over the reopening of gyms has been divisive, with some even protesting outside fitness centers. Despite this, as gyms begin to reopen, many individuals are looking forward to resuming their regular workout routine (Deb et al, 2022).

*H<sub>1</sub>: There is a positive relationship between corona virus pandemic on weight management among gym going females.*

*H<sub>2</sub>: There is significant effect of corona virus pandemic on weight management among gym going females.*

## **RESEARCH METHODOLOGY**

The study employed a cross-sectional survey design. The research was done within the gymnasiums located in Lahore. This research included a total of eight fitness facilities. The clubs in question include Fitness Care, Health Club, Level Gym, Structure Health & Fitness, Physiques Fitness Gym, FAB (Fitness & Beauty Yoga), Female Gym, and Activo Fitness Gym. The determination of sample size ( $n$ ) is conducted using the formula proposed by Yamane which is  $n = N/(1 + Ne^2)$  used to calculate the sample size, where  $N$  represents population and  $e$  represents allowable error. In this

case, the sample size is given as 80. The researchers employed a convenient sampling strategy. The research is done on the fitness facilities in Lahore. The data was exclusively collected from female participants. The scope of this study is restricted to the city of Lahore. The research method does not often include males. The data collection was conducted at several gyms located in Lahore. We conducted a study in Lahore, selecting a total of 8 gyms from various localities. From each club, we specifically chose 10 female individuals who were regular visitors to the gym prior to the implementation of the lockdown measures. Data was acquired using two surveys. The first questionnaire pertains to weight control, while the second questionnaire focuses on the impact of the coronavirus epidemic. Both surveys were utilized. The questionnaire pertaining to the impact of the coronavirus pandemic was sourced from the Central Statistics Office Ireland (CSO), while the second questionnaire about weight management was obtained from the Inova Center for Wellness and Metabolic Health. The dependent variable in this study is the control of weight in females. The impact of the COVID-19 epidemic is evident. The independent variable in this study is "Covid-19." The variable in question does not rely on other variables, but it does have an impact on them. The initial task undertaken by the researcher was accurately inputting the data into the computer system for the purpose of further tabulation and analysis. Data analysis was conducted using version 23.0 of the Statistical Package for Social Analysis (SPSS). Descriptive analysis was employed to do the data analysis. The process of descriptive analysis entailed the calculation of frequency distributions for the collected responses.

## DATA ANALYSIS AND RESULTS

This study set out to look at the connection between corona virus pandemic and weight management among gym going females. The effect of corona virus pandemic on weight management among gym going females was also investigated. Below is a discussion of the findings and their ramifications.

**Table 1:** Reliability Assessment of corona virus pandemic and weight management scales (n=80)

Scale	No. of Items	Cronbach's Alpha
Corona Virus Pandemic Scale	7	0.623
Weight Management Scale	28	0.798
Overall	35	0.827

This table shows that the reliability of corona virus pandemic on weight management scales, the corona virus pandemic scale has the Cronbach's alpha value 0.623 and the reliability of the weight management scale has the Cronbach's alpha value 0.798. The overall reliability of all the scales the Cronbach's Alpha overall value is 0.827, which is excellent shows the data reliability.

**Table 2:** Normality of corona virus pandemic and weight management scales (n=80)

Scales	Shapiro-Wilk		
	Statistic	df	Sig.
Corona Virus Pandemic Scale	0.931	80	.051
Weight Management Scale	0.982	80	.309

The Shapiro-Wilk test was used to find the normality of corona virus pandemic on weight management scales. Shapiro Wilk test is significant value of corona virus pandemic on weight management scales are less than 0.05 that shows the data is normal.

**Table 3:** Correlation between mean value of corona virus pandemic and weight management scales (n=80)

	Mean value of CVP
Mean value WM	-.016
Sig. (2-tailed)	.887

CVP= Corona Virus Pandemic, WM= Weight Management

To analyze the relationship between study variables, score variables are computed on the basis of responses against each statement and the results of the Pearson correlation coefficients are listed in table. The results indicate that corona virus pandemic has non-significant ( $p > 0.05$ ) and very low negative correlation ( $r = -0.016$ ) with weight management.

**Table 4:** Model Summary of corona virus pandemic and weight management scales

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	Durbin-Watson
1	.016 <sup>a</sup>	.000	-.013	2.13924	2.248

Predictors: (Constant), mean CVP, b Dependent Variable: mean WM

In the R column, we find the correlation coefficients between the predictors and the outcome, which is 0.016. Moving on to the next column, we have the  $R^2$  value, which measures the proportion of variability in the outcome that can be explained by the predictors. In this particular model, the  $R^2$  value is  $< 0.001$ , indicating that corona virus pandemic accounts for 0.0001% of the variation in weight management. To assess the assumption of independent errors, we refer to the Durbin-Watson statistic. A range below 1.5 or above 2.5 would raise concerns. In this case, the data value is 2.248, falling within the acceptable range of 1.5-2.5, suggesting that the assumption of independent errors has likely been met.

**Table 5:** Analysis of variance of corona virus pandemic and weight management scales

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.094	1	0.094	.020	.887 <sup>b</sup>
	Residual	356.956	78	4.576		
	Total	357.050	79			

Predictors: (Constant), mean CVP, b Dependent Variable: mean WM

The model consists of two coefficients, one for the predictor and one for the constant term, and it has 79 degrees of freedom. To assess the significance of each term, the average sum of squares is calculated by dividing the sum of squares by the degrees of freedom. In this case, the F-ratio is 0.020. These results indicate that the model is unable to predict the outcome variable.

**Table 6:** Coefficients of corona virus pandemic and weight management scales

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	14.683	3.338		4.933	.000
	Mean CVP	-.143	1.000	-.016	-.143	.887

a. Dependent Variable: mean WM

The initial portion of the table provides us with estimates for the b-values, which represent the individual contributions of each predictor to the model. By substituting these b-values into the equation, we can define the model as follows:

$$\begin{aligned} \text{Weight Management} &= (b_0 + b_1 \text{ Corona virus pandemic}) \\ \text{Weight Management} &= (14.683 - 0.143 \text{ Corona virus pandemic}) \end{aligned}$$

The b-values provide information about the relationship between cognitive play and each predictor. In this dataset, all predictors have positive b-values, indicating positive relationships. Each beta value is accompanied by a standard error, which indicates the extent to which these values may vary

across different samples. These standard errors are utilized to assess whether the b-value significantly differs from zero.

**Figure 1:** Histogram and Normal P-P plot of regression standardized residual for corona virus pandemic and weight management among gym going females

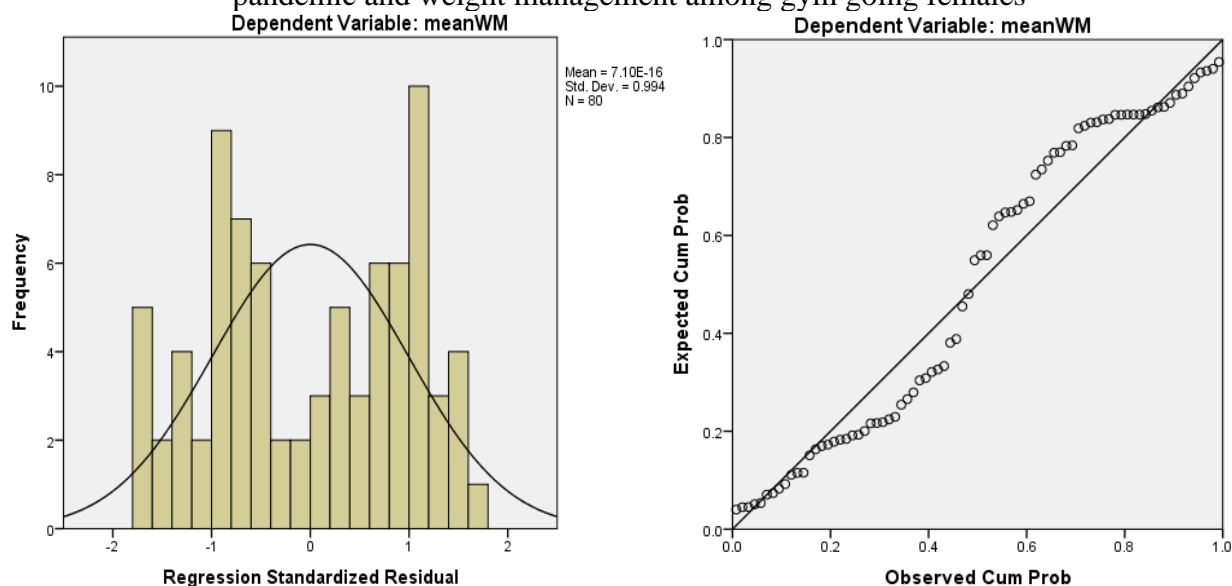


Figure 1 illustrates the histogram and normal probability plot depicting the data for the current study. The histogram is expected to exhibit a normal distribution, characterized by a bell-shaped curve. In SPSS, a curve is overlaid on the histogram to visually represent the shape of the distribution. It also presents the graph representing the data from our study. It is noteworthy that the points in the plot are distributed in a random and uniform manner. This pattern suggests that the assumptions of linearity and homoscedasticity have been satisfied.

## DISCUSSION

According to the official website of the National Command and Operation Center (NCOC), it is a central hub responsible for coordinating and directing a united national effort against the COVID-19 pandemic. Its primary objective is to implement decisions made by the National Coordination Committee on COVID-19. The NCOC website has sections like covid-19 initiative, covid-19 vaccine, SOPs, air travel and gallery. It tells us about the vaccine stats such as partially vaccinated, fully vaccinated as well as total doses which is administrated and it also shows the covid-19 stats such as conformed cases, critical cases, deaths, recovered cases and the total tests. They also mentioned about the SPO's of covid-19. This all information is updated after every 24 hours. The information that NCOC has will be primary source for me.

I visited World Health Organized (WHO) official website & found many informative sections of the website for example there are sections of health topics, countries, newsroom & data. I also found that there is an emergency section that contains information regarding corona virus for my study (McFee, 2020).

People engage themselves in exercise to gain good health to contribute to maintain their weight to adopt strengthening of their body. Exercise gives them strength by strengthening their muscles, to help prevent gone disease and improve immune system. I have noticed some commonalities from the above given literature. First of all, it is clear that corona virus is very dangerous and it infected the whole world. Strict lockdowns have to impose by the government. People become lazy and inactive due to all the activities have stopped. Secondly, it affected those people who visited gyms daily and kept themselves physically fit. When the gyms were close, they did not do exercise daily. Thirdly, people were demotivated for doing physically activities due to isolation and cut off from other fellows. Fourthly, people eating and sleeping habits changed due to stay at home for long time.

Its effects on the weight management for females. Above literature shows that no one has investigated the effect of corona virus pandemic on weight management among gym going females in Lahore city (Browning et al., 2021)

COVID-19, an infectious and pandemic disease spread as a result of a corona virus, was declared a pandemic by the WHO on March 12, 2020. The pandemic COVID-19 caused a lot of restrictions on humanity including social distancing and other social restrictions. The current study aims to understand how COVID-19 impacted the lives of Gym going females in their efforts on weight management. For this purpose, this study employed MCQ based survey instrument placed at Annexure-I to measure their lifestyle particularly intentions towards weight management before and during the lockdown. The sampled females were selected from different walks of life (Chaudhry et al., 2020).

The current research relied on the data gathered from females of diverse age groups and societal groups from the Pakistani Gyms gathered to examine perceptions reflected during the lockdown days of COVID-19 and how did they experience variation in habits towards Physical activity characteristics, and Dietary status of participants eating routine, during the days of confinement.

The COVID-19 globally impacted physical activity (PA) behaviors when people across the world were ordered to stay at home in self-isolation under the provision of the lockdown policy. The necessity of the lockdown was best recommended to prevent the disease from spread; however, it posed a considerable challenge. Staying for an extended period of time at home led to produce consequences in terms of weight improper management, social isolation and reduction in levels of physical activity. This reduction in PA levels was observed among habitually practicing Gym going individuals particularly females (Mela, 2021).

As recommended by WHO, and PA guidelines issued for healthy adults by ACSM (the American College of Sports Medicine), adults were asked to undertake an aerobic exercise for at least 150 min moderate threshold or take on vigorous aerobic exercise for at least 75 min throughout the week. This is besides other activities leading to muscle-strengthening, and other muscle group building, for two or extra days in a week. Seeing the growth in physical inactivity globally, WHO developed a new Action Plan globe wise to endorse PA extended over 2018–2030. However, rise of COVID-19, maintaining PA becomes more challenging, particularly for active individuals (Qiu, Chen & Shi, 2020).

A questionnaire was adapted for the current study encompassing the information concerning demographics and habits, before and during confinement. Being a part of the cross-sectional survey, participants reported in retrospect of their weight-related behaviors underwent a drastic change during the days of lockdown comparing with the times before the outbreak of COVID-19 disaster. Declines in protective behavior in relation to weight management faced a great ruin when schedule of going to Gym stopped altogether. The research premise conceived by this study was to examine the weight management lifestyle of Gym going females during the crisis days of lockdown (Storz, 2020).

Though both improvements as well as drops in weight gain management behaviors were reported, a large percentage of participants to the extent of 79% reported drop in weight management. Participants diagnosing over body weight  $\geq 35$  in other words reported decline in weight management during lock down indicating worsening behavior towards weight management (Preethi et al., 2021).

Females were selected on convenient basis of access, suitability, and criteria-fulfillment basis, they were apprised purpose of the survey and it was a heartening point that being educated and cultured class of society, the sampled females got to the point that the core purpose was to examine their health as well as lifestyle behavior during the days of pandemic Covid-19. Due to questionnaire style and composition, the sampled females were requested to invest their few minutes and for any kind of follow-up information, they can contact the researcher who observed the research phenomenon closely (Karatas et al., 2021).



## CONCLUSION

Following the implementation of lockdown measures and the enforcement of social distance policies, this study discovered adverse consequences on individuals' levels of physical activity, leading to an increase in weight. Nevertheless, individuals who exhibited elevated levels of physical activity (PA) reported a lower body weight. A majority of the survey's female participants, namely 51%, said that they had a longing for their pre-pandemic routine and consequently strayed from their initially planned activities during the lockdown period. Nevertheless, these individuals were able to successfully reintegrate their workout regimen within the context of the new conditions. Approximately 70% of females recognized the importance of structured physical activity (PA) and actively participated in various exercises. They acknowledged that PA has a significant role in promoting the physical, social, and mental well-being of women. A mere 30% of the respondents expressed their reluctance to engage in any type of physical exercise while being confined to their homes or local parks during the lockdown period. This study posits that there exists a significant interrelationship between sleeping patterns, eating habits, and weight management, with one factor exerting an influence on the others when not implemented in a deliberate manner. In addition to these factors, engaging in physical exercise within the confines of a lockdown situation plays a significant role in weight control and is closely associated with both the physical and mental well-being of the body. There is a correlation between weight increase and the level of physical activity, as well as the influence of nutritional factors. The COVID-19 pandemic has had a significant impact on female gym-goers, affecting not only their ability to attend fitness facilities but also leading to changes in their eating habits, sleep patterns, and overall physical activity levels. The female gym enthusiasts persisted in their endeavors to manage their weight and participated in physical activity to a certain degree, while also attempting to adhere to a nutrition regimen in order to regain their fitness through weight reduction prior to the onset of lockdown measures. However, a significant number of individuals have embraced a sedentary lifestyle, resulting in weight gain. Surprisingly, the findings of the study reveal that a majority of the participants (56%) engaged in weight control practices, but a significant proportion (43%) did not adhere to any specific dietary regimen for weight management. As previously mentioned, the utilization of group activities and digital technology provide optimal alternatives for adhering to a gym program while at home during periods of closure. The findings of this study demonstrate a significant shift in females' beliefs on their health habits and weight management in response to the COVID-19 pandemic, which resulted in confinement at home and adverse effects on their well-being. The chosen sample in our study saw a decrease in beneficial healthcare behaviors, an increase in detrimental food habits and diet patterns, alterations in sleeping behaviors, and a shift in weight management routines. Seventy percent of the female participants in the sample reported experiencing adverse effects on their weight control regimen as a result of the COVID-19 pandemic. Annexure-II presents a visual representation of the replies provided by female participants. This study presents a distinctive perspective on the impact of the pandemic on the weight control practices of female individuals who regularly attend gyms. Furthermore, this study provides guidance for doctors, dietitians, and public health authorities on implementing strategies to mitigate adverse consequences among the susceptible demographic of female gym attendees.

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