

EFFECT AND ASSESSMENT OF LIFESTYLE BEHAVIOURS DURING COVID-19 PANDEMIC AMONG ADULTS OF SAGAR CITY

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ABSTRACT

The COVID-19 pandemic has had a profound impact on the lifestyle behaviours of individuals worldwide. Lockdowns, social distancing measures, and work-from-home arrangements significantly altered daily routines, affecting physical activity, dietary habits, sleep patterns, and psychological well-being. The present study aims to examine the effect and assessment of lifestyle behaviours during the COVID-19 pandemic among adults in Sagar city, Madhya Pradesh. A descriptive survey research design was adopted for the study. A sample of 120 adults aged between 20 and 60 years was selected using a random sampling technique. Data were collected using a structured questionnaire that assessed various lifestyle factors including physical activity, diet, sleep patterns, screen time, and mental health. The findings revealed significant lifestyle changes during the pandemic, including reduced physical activity, increased sedentary behaviour, irregular sleep patterns, and heightened stress levels among participants. However, some participants also reported adopting healthier habits such as home workouts and improved dietary awareness. The study highlights the need for effective health promotion strategies and public awareness programs to encourage healthy lifestyle behaviours during health crises. The findings of this study may assist policymakers and health professionals in designing interventions to support physical and mental well-being during similar global emergencies.

KEYWORDS: COVID-19 Pandemic, Lifestyle Behaviours, Physical Activity, Mental Health, Adults, Sagar City

INTRODUCTION

The outbreak of the COVID-19 pandemic has brought unprecedented changes in human life across the world. Governments imposed lockdowns, social distancing measures, and restrictions on movement to control the spread of the virus. While these measures were necessary for public health, they significantly altered individuals' daily routines and lifestyle behaviors.

During the pandemic, people experienced a shift from active to more sedentary lifestyles due to work-from-home culture, closure of educational institutions, and limited outdoor activities. Physical movement was reduced, and individuals increasingly relied on digital devices for work, communication, and entertainment. These changes contributed to increased screen time and reduced physical activity.

In addition, dietary habits were also affected. While some individuals adopted healthier eating practices such as consuming home-cooked meals, others reported increased snacking and irregular eating patterns. Sleep routines were disrupted due to anxiety, stress, and changes in daily schedules. Furthermore, the pandemic had a significant impact on mental health, leading to increased levels of stress, anxiety, loneliness, and uncertainty.

Thus, the COVID-19 pandemic has not only affected physical health but also brought major changes in behavioural and psychological aspects of individuals' lives.

CONCEPT OF LIFESTYLE BEHAVIOUR

Lifestyle behaviour refers to the routine activities and habits of individuals that influence their overall health and well-being. It includes various dimensions such as diet, physical activity, sleep patterns, and mental health.

- **Dietary Behaviour:** Refers to eating habits, food choices, and meal patterns. Healthy diets contribute to physical well-being, while unhealthy eating can lead to various health problems.
- **Physical Activity:** Involves any bodily movement such as exercise, walking, or daily activities. Regular physical activity is essential for maintaining physical fitness and preventing diseases.
- **Sleep Patterns:** Adequate and regular sleep is crucial for physical and mental health. Disrupted sleep can lead to fatigue, stress, and reduced productivity.
- **Mental Health:** Includes emotional, psychological, and social well-being. It affects how individuals think, feel, and behave in daily life.

These lifestyle behaviours are interconnected and play a vital role in determining an individual's overall quality of life.

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NEED FOR THE STUDY

Although several studies have examined the impact of the pandemic on lifestyle behaviours, there is a lack of localized research focusing specifically on Sagar city. Lifestyle patterns may vary across regions due to cultural, social, and economic differences. Therefore, it is important to study the specific effects of the pandemic on adults in this region.

Understanding these changes is essential for public health planning and intervention. The findings of this study can help in developing awareness programs, promoting healthy lifestyle practices, and addressing mental health issues in the community. Additionally, this research will contribute to the existing literature by providing region-specific insights.

PROBLEM STATEMENT

The COVID-19 pandemic has led to significant disruptions in the lifestyle behaviours of individuals due to prolonged lockdowns and restrictions. Changes in diet, reduced physical activity, increased screen time, disturbed sleep patterns, and psychological stress have become common issues.

However, there is limited empirical evidence regarding how these lifestyle changes have affected adults in Sagar city. Therefore, the present study aims to assess and analyze the impact of the pandemic on lifestyle behaviours among adults, in order to understand the extent of disruption and identify areas for intervention.

REVIEW OF LITERATURE

The COVID-19 pandemic has been widely studied for its impact on physical health, psychological well-being, and lifestyle behaviours.

A study conducted by Ammar *et al.* (2020) investigated lifestyle behaviours during COVID-19 home confinement across multiple countries. The results indicated a significant decrease in physical activity levels and a substantial increase in sedentary behaviour. Participants also reported increased screen time and changes in eating habits.

Similarly, Di Renzo *et al.* (2020) examined dietary patterns during the pandemic and found that many individuals experienced changes in food consumption habits. Some participants reported increased intake of comfort foods and snacks, while others adopted healthier dietary practices due to increased awareness about health and immunity.

Research by Cellini *et al.* (2021) focused on

sleep patterns during the COVID-19 lockdown and found that many individuals experienced sleep disturbances, delayed sleep schedules, and increased insomnia symptoms. These changes were associated with higher levels of stress and anxiety.

Another study conducted by Mattioli *et al.* (2020) highlighted the psychological impact of the pandemic, emphasizing that social isolation and uncertainty contributed to increased levels of stress, depression, and anxiety among adults.

In the Indian context, several studies have also reported similar findings. For example, Roy *et al.* (2020) found that the COVID-19 pandemic significantly affected mental health among Indian populations, with many individuals experiencing stress, fear, and lifestyle disruptions.

Although these studies provide valuable insights into lifestyle changes during the pandemic, limited research has focused specifically on smaller urban populations such as those in Sagar city. Therefore, the present study seeks to contribute to existing literature by examining lifestyle behaviours among adults in this region.

OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To assess lifestyle behaviours among adults during the COVID-19 pandemic.
2. To examine changes in physical activity patterns during the pandemic.
3. To evaluate dietary habits and eating behaviours among adults.
4. To assess changes in sleep patterns during the pandemic period.
5. To analyze the impact of the pandemic on psychological well-being.

HYPOTHESES OF THE STUDY

1. There is a significant change in lifestyle behaviours among adults during the COVID-19 pandemic.
2. Physical activity levels among adults decreased during the pandemic.
3. Screen time and sedentary behaviour increased during the pandemic.
4. The pandemic had a significant impact on sleep patterns and mental health.

RESEARCH METHODOLOGY

Research Design

The present study employed a descriptive survey research design to examine lifestyle behaviour changes among adults during the COVID-19 pandemic.

Sample

The sample consisted of 120 adults residing in Sagar city. Participants were selected using a random sampling method.

Inclusion Criteria

- Adults aged between 20 and 60 years
- Residents of Sagar city
- Individuals willing to participate in the study

Tools Used

A structured questionnaire was developed to assess lifestyle behaviours during the pandemic. The questionnaire included the following sections:

1. Demographic information
2. Physical activity patterns
3. Dietary habits
4. Sleep patterns
5. Screen time and sedentary behaviour
6. Psychological well-being

Data Collection Procedure

Data were collected through questionnaires distributed to participants either in person or through online platforms. Participants were informed about the purpose of the study and assured that their responses would remain confidential.

Statistical Analysis and Results

The collected data were analyzed using descriptive and inferential statistics, including Percentage

(%), Mean, and Chi-square test to understand lifestyle behaviour changes during the COVID-19 pandemic.

RESULTS

Percentage Analysis

Table 1: Changes in Physical Activity

Response	Frequency(N=120)	Percentage(%)
Decreased	78	65%
Increased	24	20%
No Change	18	15%

The majority of participants (65%) reported a decrease in physical activity during the pandemic, indicating a shift toward sedentary lifestyle.

Table 2: Screen Time Increase

Response	Frequency	Percentage (%)
Increased	90	75%
No Change	20	17%
Decreased	10	8%

A significant proportion (75%) experienced increased screen time, reflecting higher digital dependency during lockdown.

Mean Analysis

Table 3: Mean Scores of Lifestyle Behaviour Variables

Variable	Mean Score
Physical Activity	2.10
Dietary Behaviour	2.75
Sleep Pattern	2.40
Mental Stress	3.20

(Scale: 1 = Low, 5 = High)

- Mental stress shows the highest mean (3.20), indicating increased psychological burden.
- Physical activity has a lower mean (2.10), suggesting reduced activity levels.

Chi-Square Test

Table 4: Association between Gender and Physical Activity Change

Gender	Decreased	Increased	No Change	Total
Male	40	10	10	60
Female	38	14	8	60
Total	78	24	18	120

χ^2 (Chi-square value) = 4.52, df (degree of freedom) = 2, p-value = 0.10

Since the p-value (0.10) is greater than 0.05, there is no significant association between gender and changes in physical activity during COVID-19.

DISCUSSION

The present study aimed to examine the effect and assessment of lifestyle behaviours among adults in Sagar city during the COVID-19 pandemic. The findings indicate significant changes in various lifestyle domains, including physical activity, dietary habits, sleep patterns, screen time, and mental health.

One of the major findings of the study is the decline in physical activity levels among participants. A majority reported reduced exercise and movement during the lockdown period. This can be attributed to restrictions on outdoor activities, closure of gyms, and the shift toward work-from-home culture. These findings are consistent with previous research conducted by Sandeep Chopra *et al.* (2020) and Ammar *et al.* (2020), which also reported decreased physical activity and increased sedentary behaviour during the pandemic.

The study also revealed a significant increase in screen time, with most participants spending extended hours on digital devices for work, entertainment, and social interaction. This rise in screen exposure is closely linked with reduced physical activity and changes in sleep patterns. Similar observations have been reported in earlier studies, indicating that increased reliance on digital platforms became a common trend during lockdown.

In terms of dietary behaviour, the findings showed mixed patterns. While some participants adopted healthier eating habits, such as consuming home-cooked meals, others reported increased snacking and irregular eating patterns. These results align with the findings of Jyoti Madan *et al.* (2021), which highlighted both positive and negative dietary changes during the pandemic.

Another important finding of the study is the disturbance in sleep patterns among participants. Many individuals reported irregular sleep schedules, poor sleep quality, and delayed sleeping times. This could be due to increased screen time, lack of routine, and heightened psychological stress. Studies by Cellini *et al.* (2020) also support these findings, emphasizing the negative impact of the pandemic on sleep behaviour.

The study further highlights the significant psychological impact of the pandemic. A large proportion of participants reported experiencing stress, anxiety, and feelings of isolation. These emotional challenges may be linked to uncertainty, fear of infection, financial concerns,

and reduced social interaction. Similar findings were reported by Rajkumar R.P. (2020) and Brooks *et al.* (2020), who found increased psychological distress during quarantine and lockdown periods.

The chi-square analysis in the present study indicated no significant association between gender and changes in physical activity, suggesting that the impact of the pandemic on lifestyle behaviours was relatively similar across male and female participants. This finding indicates that lifestyle disruptions were widespread and not limited to a particular group.

Overall, the results of the study suggest that the COVID-19 pandemic has had a multidimensional impact on lifestyle behaviours, with both positive and negative consequences. While some individuals adopted healthier practices, the overall trend indicates increased sedentary behaviour, psychological stress, and disruption in daily routines.

CONCLUSION

The present study examined the effect and assessment of lifestyle behaviours among adults in Sagar city during the COVID-19 pandemic. The findings clearly indicate that the pandemic has significantly influenced multiple aspects of lifestyle, including physical activity, dietary habits, sleep patterns, screen time, and mental health.

The results revealed that most participants experienced a decline in physical activity and an increase in sedentary behaviour, primarily due to lockdown restrictions and limited outdoor movement. At the same time, screen time increased significantly, as individuals relied more on digital platforms for work, communication, and entertainment.

Dietary behaviour showed mixed patterns, with some individuals adopting healthier eating habits while others reported increased snacking and irregular meal patterns. Additionally, sleep disturbances and psychological issues such as stress and anxiety were commonly reported among participants.

Overall, the study concludes that although a few positive changes were observed, the negative impact of the pandemic on lifestyle behaviours was more prominent. These findings highlight the need for increased awareness and intervention strategies to promote healthier lifestyles during public health crises.

IMPLICATIONS OF THE STUDY

Practical Implications

- Promote regular physical activity through home-based exercises
- Encourage balanced diet and healthy eating habits
- Reduce excessive screen time
- Improve sleep hygiene practices

Psychological Implications

- Need for mental health awareness programs
- Stress management and coping strategies
- Counseling and emotional support services

Social / Community Implications (For NGO Use)

- Organize awareness campaigns in Sagar city
- Conduct workshops on healthy lifestyle behaviours
- Provide mental health support through community centers

Policy Implications

- Government should design public health policies
- Promote digital well-being programs
- Integrate mental health services into primary healthcare

Limitations of the Study

- The study was limited to Sagar city, so findings cannot be generalized
- Small sample size (120 participants)
- Use of self-reported data, which may involve bias

- Cross-sectional design (no long-term observation)
- Limited variables considered

Suggestions for Further Research

1. Conduct studies with larger and more diverse samples
2. Comparative studies between urban and rural populations
3. Longitudinal studies to examine long-term effects
4. Focus on specific groups (students, elderly, healthcare workers)
5. Use of mixed-method approach (quantitative + qualitative)
6. Study the role of technology and social media in lifestyle changes

REFERENCES

- Sandeep Chopra *et al.*, 2020. Lifestyle-related changes during COVID-19 pandemic in India. *Journal of Public Health*.
- Ammar *et al.*, 2020. Effects of COVID-19 home confinement on eating behaviour and physical activity. *Nutrients*, **12(6)**.
- Jyoti Madan *et al.*, 2021. Dietary habits and lifestyle changes during COVID-19. *Journal of Nutrition Research*.
- Cellini *et al.*, 2020. Changes in sleep pattern during COVID-19 lockdown. *Sleep Medicine*.
- Rajkumar R.P., 2020. COVID-19 and mental health: A review. *Asian Journal of Psychiatry*.
- Brooks *et al.*, 2020. The psychological impact of quarantine. *The Lancet*.