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Socio-Economic Benefits Of Urban Parks In Enhancing Public Health In Lucknow City

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Abstract-

Rapid urbanisation in city has led to increased population density, shrinking open spaces, and rising public health concerns such as physical inactivity, stress, and lifestyle-related diseases. In this context, urban parks have become important public spaces that support healthier urban living. This study examines the socio-economic benefits of urban parks in enhancing public health in Lucknow City, Uttar Pradesh. The main objectives of the study are to analyse patterns of urban park usage, to assess the impact of parks on physical and mental health, to examine their role in promoting social interaction, and to explore the perceived economic benefits associated with urban parks. The study is based on primary data collected through a structured questionnaire survey of **240** respondents from different parks of Lucknow City. A descriptive and analytical research design was adopted, and the data were analysed using percentage-based and descriptive methods. The findings of the study indicate that a large proportion of city residents regularly use urban parks for activities such as walking, jogging, yoga, and relaxation. Most respondents reported improvements in physical health, including better fitness levels, reduced stress, and improved sleep quality. Urban parks were also found to contribute significantly to mental well-being by providing calm and green environments that help reduce anxiety and mental fatigue. In addition, parks function as important social spaces that encourage community interaction and strengthen social cohesion. From an economic perspective, urban parks support small-scale vendors, informal workers, and service providers, thereby contributing to local livelihoods.

The study concludes that urban parks are not merely recreational spaces but essential components of public health and socio-economic infrastructure. Recognising and strengthening the role of urban parks in urban planning and policy-making is crucial for promoting sustainable, inclusive, and healthy urban development in cities like Lucknow.

Key Words:- Urban Parks, Public Health, Sustainable Development, Urban Green Spaces, Socio-Economic Benefits, Social Inclusion, Emotional Wellbeing

Introduction:- Urbanisation has become a defining feature of modern Indian cities. Rapid population growth, expanding built-up areas, and changing lifestyles have transformed urban spaces in ways that directly affect the health and well-being of city residents. While cities offer better employment and educational opportunities, they also create challenges such as overcrowding, pollution, lack of physical activity, mental stress, and weakening social relationships. In this context, urban parks and green spaces have gained renewed importance as essential public spaces that support healthier and more balanced urban living. Urban parks provide citizens with accessible spaces for physical exercise, mental relaxation, and social interaction. Activities such as walking, jogging, yoga, and informal gatherings in parks help reduce lifestyle-related diseases and improve overall quality of life. Beyond health benefits, parks also contribute to social cohesion by bringing people from different backgrounds together and supporting small-scale economic activities such as vending and services. Despite these multiple benefits, urban parks are often undervalued in urban planning, especially in rapidly growing cities. The nature of the problem lies in the increasing pressure on urban land and the declining availability and quality of public green spaces. In cities like Lucknow, rapid urban expansion has resulted in unequal distribution of parks, inadequate maintenance, and limited access for certain sections of the population. At the same time, public health challenges such as stress, physical inactivity, and non-communicable diseases are rising. This situation raises an important question: can urban parks play a meaningful role in addressing these health and socio-economic challenges?

Based on this concern, the study is guided by the hypothesis that regular use of urban parks has a positive impact on physical health, mental well-being, social interaction, and local economic activities. It is assumed that individuals who frequently use parks experience better health outcomes and stronger social connections than those who do not. The present research study aims to examine the socio-economic benefits of urban parks in enhancing public health in Lucknow City. The specific objectives include understanding patterns of park usage, assessing physical and mental health impacts, analysing social interactions within parks, and exploring perceived economic benefits associated with park-related activities. The study is based on a descriptive and analytical research design. Primary data were collected through a structured questionnaire survey of **240** respondents from different parks of Lucknow City. The respondents represent diverse age groups, occupations, income levels, and educational backgrounds. The collected data were analysed using simple percentage and descriptive methods to identify major trends and patterns. Like any empirical study, this research has certain limitations. The findings are based on self-reported perceptions, which may involve personal bias. The study is limited to selected parks of Lucknow and does not include longitudinal health data. Therefore, the results should be interpreted within these constraints. Despite these limitations, the study is expected to contribute meaningfully to urban studies and public health research by highlighting the often-overlooked role of urban parks. The findings can assist urban planners, policymakers, and local authorities in recognising parks as vital public health infrastructure. The study concludes that strengthening and expanding urban parks is not only important for environmental sustainability but also essential for building healthier, more inclusive, and socially connected cities.

Research Problem- A general survey of research area reveals that due to rapid urbanisation and industrialisation, increasing population pressure, road and building construction, the expansion of industrial units, and unplanned land use and land cover changes have affected the green cover in Lucknow city. As a result:

- 1:- Rapid urbanisation and industrialization in cities like Lucknow has resulted in the continuous decline of public open and green spaces, which has raised serious concerns about the physical and mental health of urban residents.
- 2:- Increasing population density, traffic congestion, pollution, and lack of recreational spaces have contributed to growing problems such as physical inactivity, stress, lifestyle-related diseases, and social isolation in urban areas.
- 3:- Although urban parks have the potential to improve public health by promoting physical activity, mental relaxation, and social interaction, their role is often underestimated in urban planning and public health policies.

4:- The distribution of urban parks in Lucknow is uneven, and many parks suffer from poor maintenance, inadequate facilities, and safety concerns, which limit their effective use by the public.

5:- There is limited empirical evidence based on primary data that clearly explains how urban parks contribute to socio-economic well-being and public health at the city level.

6:- Most existing studies focus on metropolitan cities, while medium-sized cities like Lucknow remain under-researched, creating a gap in knowledge for evidence-based urban planning.

Research Objectives- The main research objectives of the current research study are:

1:- To examine the socio-demographic profile of urban park users in Lucknow City.

2:- To analyse the frequency, purpose, and patterns of urban park usage among city residents.

3:- To assess the impact of urban parks on the physical health of residents, particularly in relation to physical activity and fitness.

4:- To evaluate the role of urban parks in improving mental health and reducing stress and psychological fatigue.

5:- To examine the contribution of urban parks to social interaction, community bonding, and social cohesion.

6:- To explore the perceived economic benefits of urban parks, including support for local vendors and informal employment.

7:- To provide policy-oriented suggestions for improving the planning, management, and accessibility of urban parks in Lucknow City.

Importance or Significance- Urban parks are increasingly recognised as vital components of healthy and sustainable cities. However, their role in improving public health and socio-economic well-being is often overlooked in urban planning and policy discussions, especially in medium-sized Indian cities. This study highlights the importance of urban parks in enhancing physical health, mental well-being, social interaction, and local economic activities in Lucknow City. The main importance or significance of the present research study are as follows:

1:- It highlights the role of urban parks as essential public health resources that promote physical activity and healthy lifestyles.

2:- The study provides empirical evidence on the mental health benefits of urban parks, including stress reduction and emotional well-being.

3:- It helps in understanding how urban parks support social interaction, community bonding, and social cohesion among city residents.

4:- The research brings attention to the economic contributions of urban parks through informal employment and local livelihood opportunities.

5:- It fills a research gap by focusing on a medium-sized Indian city, which is often neglected in urban studies.

6:- The findings can support evidence-based urban planning and policy-making related to green space development.

7:- The study contributes to academic literature on urban geography, public health, and sustainable development.

8:- It offers practical insights for local authorities to improve park management, maintenance, and accessibility.

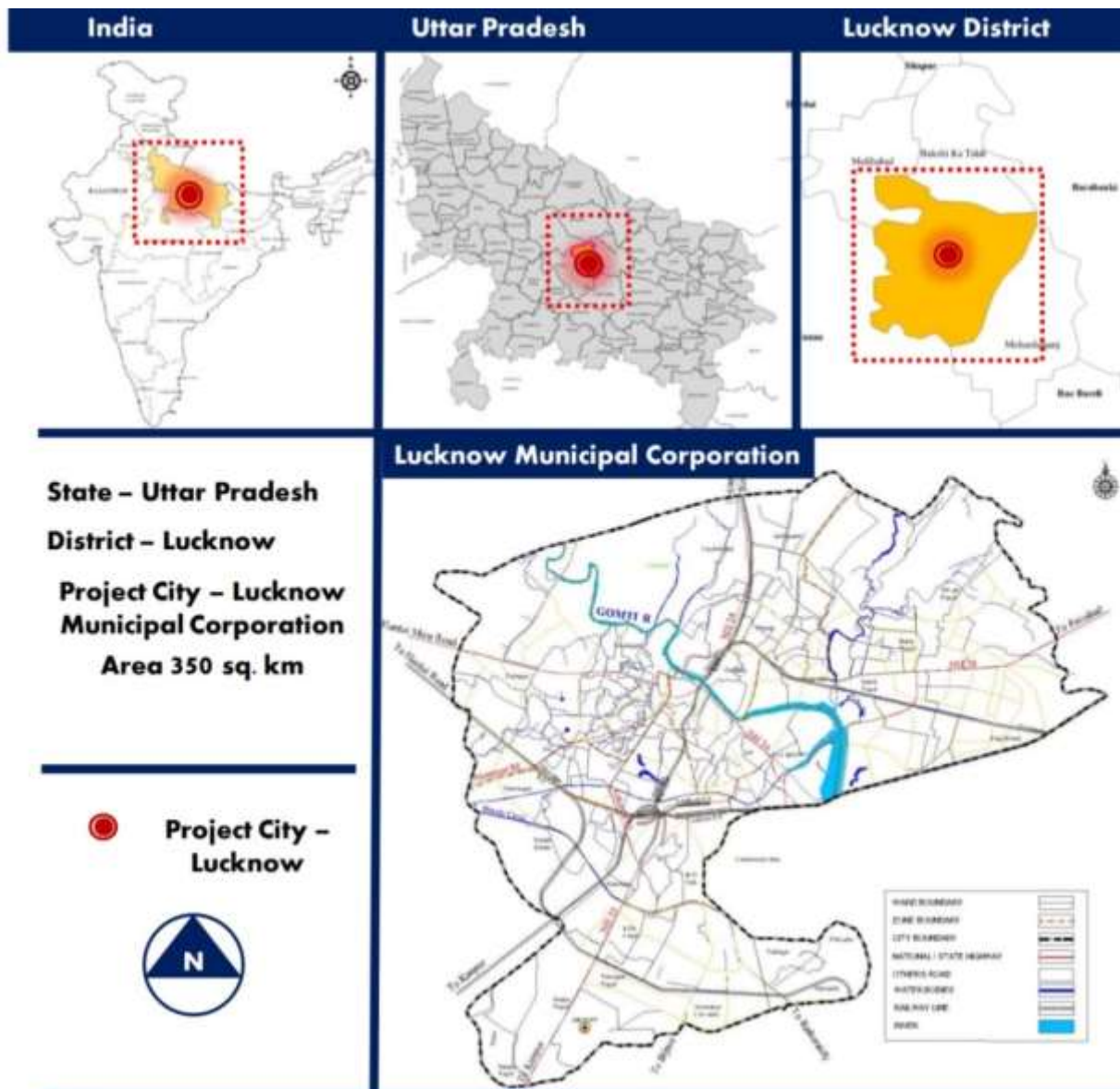
9:- The research can help in promoting inclusive urban development by highlighting the needs of different social groups.

10:- The study emphasises the importance of integrating urban parks into long-term public health and sustainability strategies.

Study Area: Lucknow City:-

The location of Lucknow City is in the state of Uttar Pradesh in India. Situated on the northern Gangetic plains of India, Lucknow is the capital city of Uttar Pradesh. Geographically, it lies between **26°30' N** to **27°10' N** latitude and **80°30' E** to **81°13' E** longitude. Lucknow is located at an elevation of **123** meters above sea level. This city was known by the name of Awadh during ancient times, situated in the heart of the great Gangetic plain. Lucknow city is surrounded by its rural towns and villages like the orchard town of Malihabad, historic Kakori, Mohanlal Ganj, Gosainganj, Chinhat, Itaunja. On its eastern side lies Barabanki District, on the western side is Unnao District, on the southern side Raebareli District, and on the northern side the Sitapur and Hardoi districts. The Gomti River, the main geographical feature, meanders through the city, dividing it into the Trans-Gomti and Cis-Gomti regions. Lucknow city is located in the seismic zone III. Lucknow's location is responsible for the diverse weather patterns and climatic changes. It does not have a uniform weather throughout the year and experiences extreme summers and extreme winters. The total geographical area of Lucknow district is **2528** square kilometers, out of which the total area of Lucknow City **631** square kilometres. According to the Census **2011**, the total population of the Lucknow City is **2,817,105** in which the male population is **1,460,970** and the female population is **1,356,135** and density of **8000** persons/sq. km. Lucknow city contributes **6.33%** of Urban population in total of state's Urban population. Lucknow city is divided into six zone and further subdivided into **110** administrative wards. Lucknow is also referred as **“Golden City of the East”**



Geographical location of Lucknow City

Source: Lucknow Municipal Corporation, Final Report Revised City Development Plan, Lucknow City - 2040 Volume-1

Research Methodology and Collection of Data:-

The present research study is based on a descriptive and analytical research design. Primary data were collected through a structured questionnaire survey conducted among **240** respondents from different parks of Lucknow City. The respondents were selected using a random sampling method to ensure diversity in age, gender, occupation, and income levels. The questionnaire focused on park usage, health experiences, social interaction, and economic perceptions related to urban parks. The collected data were analysed using simple percentage and descriptive methods to identify patterns and trends. Secondary data sources such as books, research articles, and government reports were also consulted to support the analysis.

Sample Size of Respondents

Age Group	Number of Respondents	Male	Female
10-15	20	10	10
16-20	20	10	10
21-25	20	10	10
26-30	20	10	10
31-35	20	10	10
36-40	20	10	10
41-45	20	10	10
46-50	20	10	10
51-55	20	10	10
56-60	20	10	10
61-65	20	10	10
66-70	20	10	10
Total N. of R	240	120	120

For the present research study, a sample of **240** respondents was taken from a total of **10** major parks in Lucknow city. The top 10 major parks in Lucknow City are as follows : (1)- Janeshwar Mishra Park (2)- Gautam Buddha Park (3)- Dr. Ram Manohar Lohiya Park (4)- Globe Park (5)- Swarna Jayanti Smriti Vihar Park (6)- Gomti River Front Park (7)- Botanical Garden Park (8)- Manyavar Shri kanshiram Ji Green Eco Garden (9)- Kalindi Van Park (10)- Begam Hazrat Mahal Park

Current Status of Urban Parks in Lucknow City:

According to data from **2004-05**, the total area of recreational parks, playgrounds, and open spaces in the Lucknow Development Area was approximately **435** hectares. When **176** villages are included in the Lucknow Development Area, in **2021**, recreational parks, play ground, and open spaces covered a total of **1384.87** hectares of land use, representing **4.45%** of the total urban developed area. The total number of developed, undeveloped, and open spaces within the Lucknow Municipal Corporation is approximately **2,466**. The major recreational parks of Lucknow metropolis include Janeshwar Mishra Park, Begum Hazrat Mahal Park, Daya Nidhan Park, Surajkund Park, Shaheed Smarak Park, Buddha Park, Hathi Park, Ambedkar Udyan and Lemon Park etc. There are also extensive open spaces under the Residency, Botanical Garden, Zoo. Including all these, about **5366.49** hectares of land has been kept for parks and open spaces in the **Master Plan 2031**. The main open spaces of the city are concentrated along the Gomti River; there is a lack of parks and open spaces in the old developed area of the city. Lucknow Development Authority, Awas Vikas Parishad and private developers develop parks and gardens with the city in different colonies and societies which are later transferred Lucknow Municipal Corporation. Lucknow city is very rich in terms of green infrastructure but must of the green infrastructure have now turned into barren lands due to lack of regular maintenance. As per Lucknow Municipal corporation there are **2466** parks and gardens under the jurisdiction of LMC comprising to an area of about **435** hectare. Out of the total number of parks and gardens only **1881** of them are in good condition or developed, rest **428** parks and gardens are not developed and the remaining **157** parks and gardens are just open areas. Out of all the parks and gardens only **76.27%** of them are fully developed with proper upkeep and maintenance.

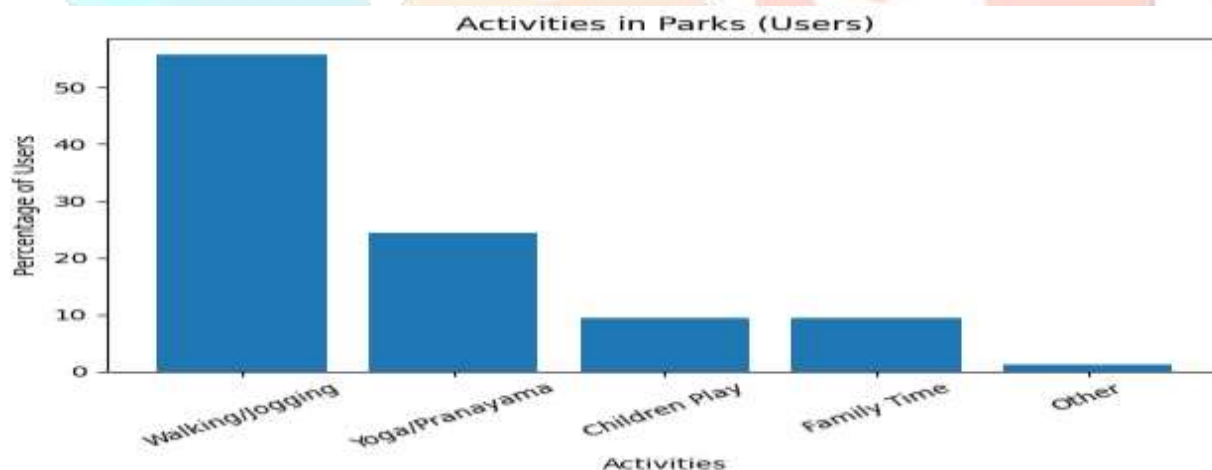
Zone wise distribution of parks and gardens in Lucknow city: Year -2024

Zone	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Total (8)
Developed	53	229	317	390	42	60	410	380	1881
Not developed	09	45	130	19	08	25	87	105	428
Open Areas	00	38	12	01	02	00	51	53	157

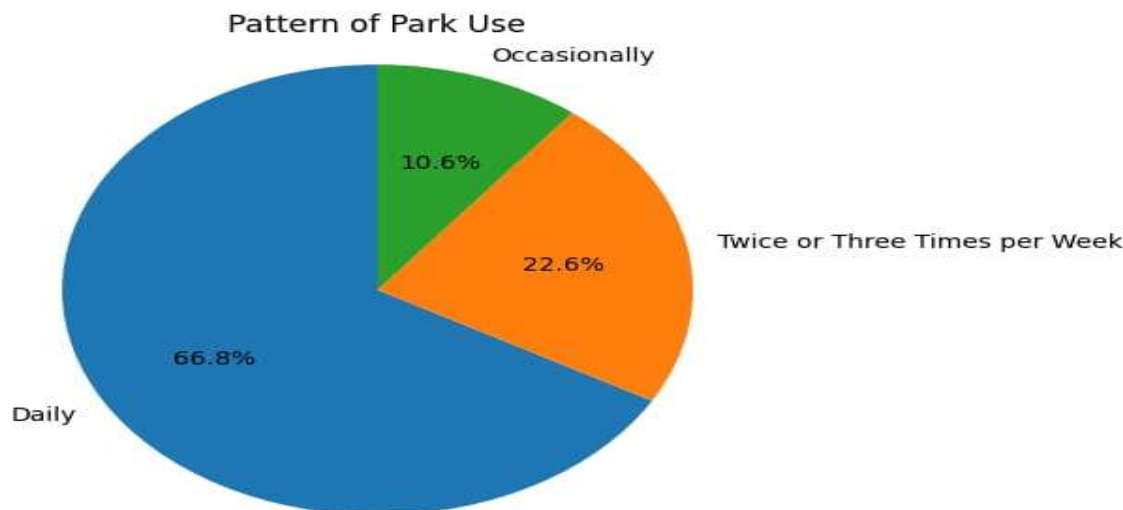
Source: Lucknow Municipal Corporation

Results and Analysis- The present research study is based on primary data collected from 240 respondents selected from different parks of Lucknow City. The analysis focuses on understanding patterns of urban park usage and their perceived impact on public health and well-being.

Activities in Parks:- During the research study, it was found that 55.8% of the respondents come to the parks for walking/jogging, 24.4% for yoga/pranayam, 9.3% for children's play, 9.3% for family time and 1.2% for some other work. Thus, approximately 80% of people visit parks to improve their physical and mental health.

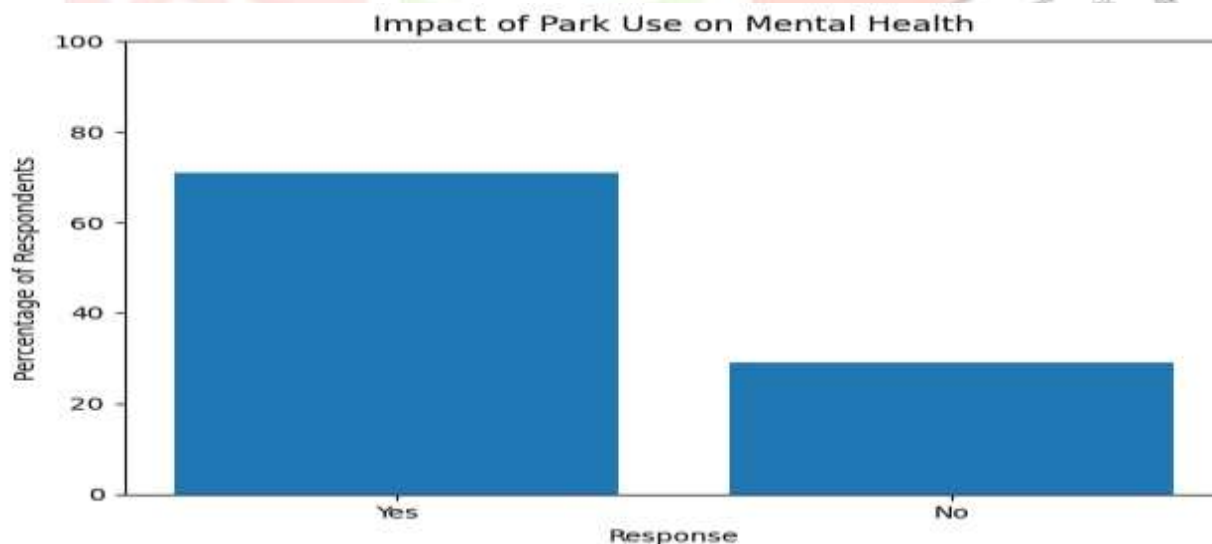


Pattern of Park Usage:- The study reveals that nearly 66.8% percent of respondents regularly use urban parks. Meanwhile, 22.6% reported visiting parks two or three times a week. 10.6% reported visiting parks occasionally. Walking and jogging emerged as the most common activities, followed by yoga and recreational activities with family members.



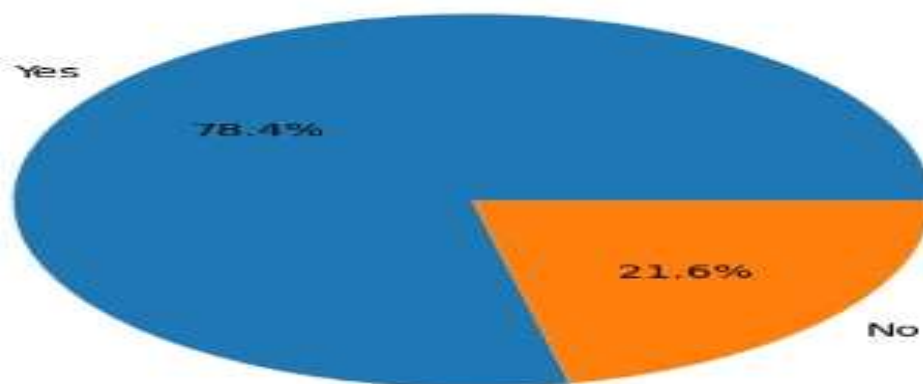
Impact on Physical Health:- The pie chart reveals that 78.4% respondents reported significant improvement in their physical health due to regular park usage, whereas 21.6% did not experience significant improvement. Common benefits included weight control, improved blood pressure, enhanced stamina, and better sleep patterns. These findings indicate that urban parks promote active lifestyles and help prevent lifestyle-related diseases.

Impact on Mental Health:- More than 70.9% of respondents acknowledged that spending time in parks reduced stress and mental fatigue, Whereas 29.1% people said that they never felt like this. The presence of greenery, fresh air, and peaceful surroundings was reported to have a calming effect. Parks were often described as spaces for relaxation and emotional balance.



Social Interaction and Community Life:- Urban parks were found to be important spaces for social interaction. Respondents reported meeting neighbours, participating in group activities such as laughter clubs and yoga sessions, and forming informal social networks. Such interactions help reduce feelings of isolation and foster community bonding. During the research study, more than 80% of the respondents agreed that visiting parks strengthens social relationships and provides an opportunity to know and understand each other.

Physical Health Improvement due to Park Use



Economic Benefits:- The study highlights several economic benefits associated with urban parks. Respondents noted that parks support small vendors, food stalls, and service providers. Additionally, parks contribute to employment in maintenance, security, and landscaping. Some respondents also observed that areas near well-maintained parks tend to have higher property values.

Age Group and Park Utilisation Pattern:- The present research study reveals that respondents from the 21–30 years, 31–40 years and 41–50 years age groups form the largest share of regular park users. Young adults primarily use parks for jogging, fitness, and stress relief, while middle-aged respondents focus on walking and health maintenance. Elderly respondents, though fewer in number, reported using parks mainly for light exercise and social interaction.

Park Utilization Percentage Across Age Group in Lucknow City

Age Group	Percentage
10-20	12%
21-30	18%
31-40	32%
41-50	21%
51-60	10%
61-70	7%

Time Spent in Urban Parks:- A significant proportion of respondents reported spending 30–60 minutes per visit in urban parks, while some spend more than one hour, especially during morning and evening hours. Regular users who spend longer durations in parks reported greater satisfaction and better health outcomes.

Cleanliness, Safety and Maintenance:- Regarding park management, most respondents rated cleanliness and maintenance as average to good, while safety received mixed responses. Some respondents expressed concern about inadequate lighting, lack of security personnel, and poor maintenance in smaller neighbourhood parks.

Demand for More Urban Parks:- An overwhelming majority of respondents expressed the need for more urban parks, particularly in densely populated and newly developed areas of Lucknow City. Respondents also emphasised the importance of children’s play areas, walking tracks, and green landscaping.

Discussion

The findings of the present research study align with existing literature that emphasises the multi-dimensional benefits of urban parks. In the context of Lucknow City, parks serve as accessible and affordable spaces for maintaining physical and mental health. They also act as social hubs that bring together people from different socio-economic backgrounds. The economic benefits, though often overlooked, play a crucial role in

supporting informal livelihoods. However, issues related to maintenance, safety, and unequal distribution of parks remain challenges that need to be addressed.

Problems and Challenges of Urban Parks in Lucknow City:- Urban parks play an important role in promoting public health and social well-being in Lucknow city. However, despite their potential benefits, urban parks in Lucknow city face several problems and challenges. These issues limit their effective use and reduce their overall contribution to healthy urban living. The Major Problems and Challenges are as follows:

- 1:- Rapid urbanisation and increasing construction activities have reduced the availability of open and green spaces in cities.
- 2:- Unequal distribution of parks results in limited access for residents of densely populated and low-income areas.
- 3:- Poor maintenance of parks, including damaged walking tracks, broken benches, and inadequate sanitation facilities, discourages regular use.
- 4:- Lack of proper security measures and insufficient lighting create safety concerns, especially for women and elderly users.
- 5:- Insufficient funds and weak management systems affect the quality and sustainability of urban parks.
- 6:- Encroachment and misuse of park land for commercial or informal activities reduce green cover and open space.
- 7:- Limited public awareness and community participation in park conservation weaken long-term sustainability.
- 8:- Inadequate facilities for children, elderly, and differently-abled persons reduce inclusiveness.
- 9:- Seasonal overcrowding and lack of basic amenities such as drinking water and toilets affect user experience.

Recommendations and Suggestions:- Urban parks have the potential to significantly improve public health, social life, and environmental quality in Lucknow city. However, to fully realise these benefits, focused planning, proper management, and active community involvement are essential. Based on the findings of the present research study, the following recommendations are suggested to strengthen the role of urban parks in Lucknow City. The major Recommendations and Suggestions are as follows:

- 1:- Urban planning authorities should prioritise the development of new parks in densely populated and newly developed residential areas.
- 2:- Existing parks should be regularly maintained, with proper cleaning, landscaping, and timely repair of basic facilities.
- 3:- Adequate lighting and security arrangements should be ensured to make parks safe, especially for women, children, and elderly users.
- 4:- Parks should be equipped with inclusive facilities such as walking tracks, open gyms, children's play areas, and seating spaces for senior citizens.
- 5:- Community participation should be encouraged through resident welfare associations, local volunteers, and park user groups.
- 6:- Health-related activities such as yoga sessions, morning exercise programmes, and awareness camps can be organised regularly in parks.
- 7:- Local authorities should support small vendors in a regulated manner to enhance livelihoods without disturbing park cleanliness.

8:- Environmental education and awareness boards should be installed to promote responsible park usage and conservation.

9:- Public-private partnerships can be explored for better park management and infrastructure development.

10:- Continuous monitoring and feedback mechanisms should be introduced to understand user needs and improve park services.

Conclusion

Urban parks play a vital role in improving the quality of life in rapidly growing cities. This study on the socio-economic benefits of urban parks in enhancing public health in Lucknow City highlights how these green spaces support healthier, more balanced urban living. The findings clearly show that urban parks are not just recreational areas but essential public spaces that contribute to physical health, mental well-being, social interaction, and local economic activities. The analysis reveals that a large number of residents regularly use urban parks for walking, jogging, yoga, and relaxation. Regular park usage has helped many respondents improve their physical fitness, reduce stress, and maintain a healthier daily routine. Urban parks also provide a calm and natural environment that offers relief from the pressures of urban life, thereby supporting mental health and emotional well-being. In addition, parks serve as important social spaces where people from different age groups and backgrounds interact, build relationships, and strengthen community bonds.

From a socio-economic perspective, urban parks indirectly support livelihoods by creating opportunities for small vendors and service providers around park areas. However, the study also identifies challenges such as unequal distribution of parks, poor maintenance, and safety concerns, which limit their full potential. These issues highlight the need for better planning, management, and inclusive policies. Overall, the study concludes that urban parks should be recognised as an integral part of urban infrastructure and public health planning. Strengthening and expanding urban green spaces can contribute significantly to sustainable urban development, healthier communities, and improved well-being in cities like Lucknow.

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