**Benefits of Urban Green Spaces for Human Health: A Review**

**ABSTRACT:**

Urban green spaces (UGS) play a crucial role in promoting human health and well-being. This review explores the various physical, mental, and social health benefits associated with UGS, as well as the underlying mechanisms and design implications for urban-planning. UGS provide numerous physical health advantages, such as improved air quality, which reduces respiratory illness and healthcare costs. They also encourage physical activity, helping combat obesity and enhance overall fitness. Mentally, UGS alleviate stress, improve cognitive function, and boost mood, contributing to better psychological well-being of the user. Socially, UGS fosters community engagement, social cohesion, and a sense of place and identity, reducing feelings of isolation. The health benefits of UGS can be attributed to biophilia, stress reduction, and attention restoration. Effective urban planning should ensure the equitable distribution and accessibility of UGS across socioeconomic groups by utilizing GIS, space syntax, and other quantitative methods. Integrating nature-based solutions and creating a network of diverse green spaces can optimize the health-promoting potential of the UGS. This review highlights the multifaceted benefits of UGS and emphasizes the importance of strategic urban planning and design in creating healthier and more resilient cities.

Keywords: urban green spaces, human health, physical activity, mental health, social connections, urban planning.

**1. INTRODUCTION**

Urban green spaces (UGS) are widely recognized for their ability to support mental health and psychological well-being. These spaces provide a break from urban stressors, reduce anxiety, and foster emotional restoration. Urban green areas play a crucial role in enhancing mental health. These spaces serve as a break from the cityscape, offering opportunities for leisure, unwinding thereby elevating the overall quality of life (Ullah *et al*., 2020; Paul & Nagendra, 2017). UGS are associated with better mental health outcomes and reduced stress levels (Paul & Nagendra, 2017). Natural environments are linked with lower mental distress (Bressane *et al*., 2024). Urban greenways and vegetated areas lessen mental strain and boost life satisfaction (White *et al*., 2013). Parks provide restorative environments, giving individuals space to unwind from urban pressures (Cao *et al*., 2024). For seniors, green areas offer a platform for social connection, positively impacting mental well-being (Zheng *et al*., 2024). Blue-green infrastructure contributes to community mental health (Wang *et al*., 2022). Urbanization and changes in environment may even affect biological health systems like the gut microbiota, influencing psychological health (Brushett *et al*., 2020).

UGS encourage active lifestyles and help mitigate the adverse effects of sedentary behavior by providing safe, accessible places for movement and recreation. Urban green areas play a crucial role in encouraging physical exercise. The presence of UGS has been linked to increased physical activity (Paul & Nagendra, 2017). City parks with recreational amenities lead to greater physical activity, especially among children (Bao *et al*., 2023). Well-designed greenways—with varied plant life and inviting paths improve physical metrics like blood pressure (Cao *et al*., 2024). UGS promote overall physical health through both active and passive recreation opportunities. Parks, gardens, and squares reduce the health risks of inactive lifestyles by encouraging movement (Kuddus *et al*., 2020; Eckert & Kohler, 2014). Blue-green infrastructure reinforces physical vitality as part of comprehensive urban planning (Wang *et al*., 2022). Urban planning focused on green space integration is essential for supporting long term physical health outcomes.

The distribution and accessibility of UGS are critical to ensuring equitable health benefits across socio-economic strata. However, many urban areas suffer from green space inequality. Their presence in cities can be uneven, affecting how different socioeconomic groups access and enjoy these spaces (Huang *et al*., 2020). Ensuring that all city dwellers have fair access to green spaces is essential (Jha *et al*., 2024). Social inequities in urban settings result in unequal access to healthcare and green spaces (Kuddus *et al*., 2020). Green spaces must be equitably distributed to reduce health disparities and ensure environmental justice. Urban parks are communal zones that support social bonding and civic life (Ullah *et al*., 2020). The availability and safety of these spaces influence usage rates and inclusion, especially among marginalized groups (Lopez *et al*., 2020). Planning should address barriers for people with mobility limitations and other vulnerabilities (Egerer *et al*., 2024; Wu *et al*., 2024). Urbanization exacerbates socio-spatial inequalities, with demographic variables influencing access (Wojnowska-Heciak *et al*., 2022).

Urban green spaces provide crucial environmental benefits, particularly in addressing the harmful climate effects caused by dense urban development. They play a vital role in climate regulation by alleviating the urban heat island effect (Jha *et al*., 2024).
Urban green areas offer vital ecosystem services, including pollination, water retention, and enhancement of air quality (Green *et al*., 2015). UGS moderate urban temperatures by reducing the urban heat island effect, where cities become hotter than surrounding areas (Cetin *et al*., 2023). They contribute to air purification, stormwater retention, pollination, and the preservation of biodiversity. As vegetation decreases, land surface temperatures rise, leading to heat stress and related health risks. The integration of green infrastructure improves resilience to climate change and rapid urbanization (Hansen *et al*., 2022). Human-wildlife interactions due to reduced habitat may increase the risk of zoonotic diseases (Hassell *et al*., 2020). Strategic urban greening helps cities adapt to climate vulnerabilities while providing co-benefits to public health.

Urbanization presents significant challenges to human health, particularly concerning physical, psychological, and social well-being (Vîlcea & Șoșea, 2020). While urban green spaces are posited to mitigate the harmful effects of urban living by promoting relaxation, physical activity, and social interaction, disparities in access, quality, and distribution limit their full potential.

To evaluate the health benefits associated with various types of UGS—focusing on physical, mental, and social improvements (Cao *et al*., 2024; Mackinnon *et al*., 2019). To assess the accessibility and distribution of green spaces and their implications for health equity (Vîlcea & Șoșea, 2020). To explore how different groups use green spaces, especially vulnerable populations like those with mobility challenges (Wojnowska-Heciak *et al*., 2022; Wu *et al*., 2024). To propose strategic interventions that enhance the restorative and inclusive potential of UGS (Shanahan *et al*., 2015).

How do different types of urban greenways (e.g., parks, rivers, roadside plantings) influence physical and mental restoration? What features are most effective? (Egerer *et al*., 2024) What are the primary barriers faced by individuals with mobility difficulties when accessing UGS, and how can those be addressed? (Egerer *et al*., 2024) How do UGS foster social well-being, and what role do cultural and community events play in enhancing their benefits? (Bao *et al*., 2023) How does the distribution of UGS correspond with population density and demographic characteristics? What planning strategies can ensure equitable access? (Wojnowska-Heciak *et al*., 2022)

**2. METHODS**

In this examination, the authors concluded with 25 publications sourced from the Web of Science, Scopus, PubMed, and Google Scholar databases. These 25 studies were noted for their extensive citations across various research. By June 2025, these publications accumulated a total of 3298 citations. Table 2 presents the citation specifics for each paper.

**Sources of data**

Papers were chosen based on titles, keywords, abstracts, and conclusions. A variety of primary and secondary sources were employed, such as books and reports. Google Scholar served as a key resource for gathering a significant number of research articles. Targeted search strings were used to locate pertinent articles . These four databases offer an Advanced Search Tool, facilitating the process of finding relevant results efficiently. The data searched was compiled according to the study themes and stored in the system e-library. For identifying pertinent literature, retrieval queries were formulated. Initially, pertinent literature was located and gathered using the specified keywords in Table 1:

The expressions 'green space' and 'public open space' were considered interchangeable and assumed to mean the same thing. We examined health effects in a comprehensive manner, encompassing not only physical health but also mental health and overall well-being. This approach was intended to illustrate the different proposed mechanisms through which green spaces are thought to influence health outcomes, such as drawing individuals in, offering opportunities for physical activity, or inducing a restorative effect (Takano, 2002).

**Searching strategy**

This literature review was finalized in June 2025. A total of five hundred and thirty-seven articles were first evaluated for their relevance. From this, twenty five pertinent articles were selected and assessed for the strengths and weaknesses in their methodologies and interpretations. Subsequently, these articles were rated based on the robustness of the evidence provided (Tables 1–2).

**Table 1.** Queries used for searching the data

|  |  |
| --- | --- |
| Databases | Keywords |
| PubMed | ((“urban green spaces” OR “city parks” OR “mental health OR well-being” OR “green spaces” OR “urban forests” OR “physical activity” OR “exercise” OR “urban green spaces” OR “green infrastructure” OR “air quality” OR “climate change” OR “urban green spaces OR green spaces” OR “human health” OR “well-being” OR “urban parks” OR “health benefits” OR “ecosystem services”)) |
| Scopus | ((“urban green spaces” OR “city parks” OR “mental health OR well-being” OR “green spaces” OR “urban forests” OR “physical activity” OR “exercise” OR “urban green spaces” OR “green infrastructure” OR “air quality” OR “climate change” OR “urban green spaces OR green spaces” OR “human health” OR “well-being” OR “urban parks” OR “health benefits” OR “ecosystem services”)) |
| Web of Science | ((“urban green spaces” OR “city parks” OR “mental health OR well-being” OR “green spaces” OR “urban forests” OR “physical activity” OR “exercise” OR “urban green spaces” OR “green infrastructure” OR “air quality” OR “climate change” OR “urban green spaces OR green spaces” OR “human health” OR “well-being” OR “urban parks” OR “health benefits” OR “ecosystem services”)) |
| Google Scholar | ((“urban green spaces” OR “city parks” OR “mental health OR well-being” OR “green spaces” OR “urban forests” OR “physical activity” OR “exercise” OR “urban green spaces” OR “green infrastructure” OR “air quality” OR “climate change” OR “urban green spaces OR green spaces” OR “human health” OR “well-being” OR “urban parks” OR “health benefits” OR “ecosystem services”)) |

**3. DATA EXTRACTION**

Data extraction took place in June 2025 after a thorough review of the entire study, which encompassed the abstract, conclusion, and future directions. Following this comprehensive examination, themes and subthemes were discerned from the final selection of studies. The data gathered were systematically recorded in a tabular format based on the four subthemes (Physical Health Benefits, Mental Health Benefits, Social Benefits, Mechanisms Underlying the Health Benefits of UGS) of the research. Consequently, the collected data were structured according to these subthemes.

Table 2. Summary of review on urban green space and human health

|  |  |  |  |
| --- | --- | --- | --- |
| Study | Citations | Study design | Findings |
| (Lovell *et al*., 2014) | 48 | Systematic review methodology will be used. | Community gardening has a beneficial effect on health and well-being. |
| (Wang *et al*., 2022) | 4 | The research examines the effects of urban blue-green spaces (UBGS) on health. | Urban blue-green spaces (UBGS) have a direct and indirect impact on the health of residents. |
| (Gu *et al*., 2022) | 15 | The analysis encompassed 19 studies focused on small-scale greening to alleviate stress. | Engaging positively with indoor plants alleviates physiological stress. |
| (Lin *et al*., 2018) | 61 | The document examines the contribution of urban gardens to the promotion of biophilia. | Gardens establish secure environments for physical engagement with the natural world. |
| (Santos *et al*., 2021) | 43 | Air pollution in the environment has a considerable effect on health and raises death rates. | It worsens respiratory, cancerous, and metabolic conditions. |
| (Festa *et al*., 2023) | 25 | The analysis examines both short-term and long-term physical exercise and its impact on cognitive function. | Engaging in physical exercise enhances cognitive abilities, focus, memory, and executive functions. |
| (Kelishadi and Poursafa, 2010) | 108 | Urbanization leads to heightened air pollution and health issues in developing nations. | Economic and social elements affect health results associated with air pollution. |
| (Mahindru *et al*., 2023) | 185 | The review examines research from India regarding the impact of exercise on mental health. | Engaging in physical activity has a beneficial impact on mental well-being and lowers the incidence of illness. |
| (Alexandratos *et al*., 2012) | 70 | The examination outlines the impact of physical activity on mental well-being and overall life quality. | Physical activity enhances life satisfaction by fostering social connections and promoting a sense of empowerment. |
| (Eckert & Kohler, 2014) | 184 | The article examines the effects of urbanization on health in developing nations. | Urbanization has a positive but not substantial effect on life expectancy. |
| (Ullah *et al*., 2020) | 37 | Green parks enhance urban residents' well-being. | Urban green spaces enhance well-being and support health in urban areas |
| (Kuddus *et al*., 2020) | 276 | The document addresses public health challenges in metropolitan regions. | Urbanization results in considerable disparities and health issues among diverse populations. |
| (Bălă *et al*., 2021) | 160 | The review outlines the effects of air pollutants on respiratory illnesses. | Air pollution has a considerable effect on respiratory illnesses such as tuberculosis and lung cancer. |
| (Lopez *et al*., 2020) | 49 | Survey indicates a growing significance of green areas for mental well-being. | Participants placed greater importance on urban green areas for their health throughout the pandemic. |
| (Aram *et al*., 2019) | 423 | The article examines research on the cooling impacts of urban green spaces. | Urban green areas play a crucial role in diminishing the impacts of urban heat islands. |
| (Wallbanks *et al*., 2024) | 3 | The assessment investigates the impact of air pollution on respiratory health. | Air pollution in the environment poses a serious threat to respiratory health worldwide. |
| (Brushett *et al*., 2020) | 15 | The document outlines several elements linked to urban growth that influence health results. | Urbanization affects the methods of delivery, nutritional practices, and medication utilization among infants. |
| (Jabbar *et al*.,2021) | 200 | It analyzes 46 well-cited studies on the topic. | Richness of tree species boosts psychological well-being. |
| (Lee & Maheswaran, 2010) | 1234 | The article examines several quantitative research studies regarding environmental effects. | Green areas influence psychological well-being and community integration. |
| (Ramaiah & Avtar, 2019) | 112 | Urban development affects both green areas and the management of wastewater in India. | Urban green areas (UGA) reduce the impacts of climate change and enhance air quality. |
| (Jennings *et al*., 2024) | 15 | Research on social cohesion and urban green spaces. | Urban green spaces enhance community health and togetherness. |
| (Kleinschroth *et al*., 2024) | 19 | Data extraction sorted studies by lockdown phases. | Urban green spaces support health during COVID-19. |
| (Halder *et al*., 2025) | 6 | The study found 48 studies on thermal comfort and greenery. | Urban greenery improves thermal comfort. |
| (Athokpam *et al*., 2024) | 3 | The issues surrounding fair access and upkeep are examined. | Urban green areas help reduce the impacts of climate change. |
| (Chu *et al*., 2025) | 3 | The evaluation emphasizes a deficiency in methodical research regarding urban serenity. | The effects of soundscapes on health indicate a need to broaden approaches within public health. |

**4. RESULTS**

Through physical, psychological, and social channels, urban green areas (UGS) dramatically improve human health, as the review points out. Better air quality in green surroundings lowers respiratory diseases, while park access encourages physical activity therefore fighting obesity and related diseases. Green areas improve cognition, lift mood, and lower stress psychically. Socially, parks and community gardens encourage engagement, help to lower loneliness, and help to improve neighborhood cohesiveness. Among the underlying processes are biophilia, stress alleviation theory, and attention restoration theory. Especially in quickly urbanizing regions, fair access to green spaces and good urban planning are vital for maximizing these advantages across all population groups.

**5. MEDIATIONS**

Through linked physical, mental, and social processes, urban green spaces improve health. Biophilia builds emotional ties with nature, lowering stress and improving well-being. According to the Stress Reduction Theory, natural surroundings calm the autonomic nervous system, hence reducing anxiety and blood pressure. Offering mentally restorative surroundings, green areas help to restore cognitive focus according to Attention Restoration Theory. Promoting social interactions and physical exercise, community gardens and parks act as moderating environments that shield against health hazards. These intermediary channels highlight the necessity of fair and deliberate urban planning to guarantee everyone benefits from green area exposure and its combined health effects.

**6. FINDINGS**

The reviewed studies were categorized under the following four sub-themes of Human Health:

**PHYSICAL HEALTH BENEFITS**

Decreased air pollution greatly improves respiratory health, supported by many studies. Air pollution includes harmful substances like particulate matter and nitrogen dioxide, which can worsen respiratory issues such as COPD, asthma, and lung cancer (Bălă *et al*., 2021). Improved air quality leads to fewer respiratory infections and less severe chronic respiratory illnesses. Lower air pollutants result in fewer hospital visits for respiratory diseases and reduced symptoms for conditions like asthma and COPD (Pompilio and Bonaventura, 2020). Air pollutants like ozone and particulate matter can cause inflammation in the respiratory system, making people more prone to viral infections like RSV and influenza. Improving air quality can reduce this inflammation and lessen infection risks (Loaiza-Ceballos *et al*., 2021). Decreased air pollution leads to fewer respiratory illnesses and lower healthcare costs. A financial analysis shows that improving air quality can significantly reduce national health spending by cutting medical expenses related to diseases caused by air pollution (Liu & Ao, 2021). Diminished air pollution greatly benefits vulnerable groups like the elderly and children, who are more sensitive to its harmful effects. Air pollution in children can lead to lower birth weights and health problems, stressing the need for clean-air regulations (Kelishadi and Poursafa, 2010). Lowering air pollution has major health benefits, such as fewer respiratory illnesses and infections, and lower healthcare costs. These improvements enhance personal health and support broader public health objectives by reducing the societal impact of pollution-related diseases (Wallbanks *et al*., 2024; Santos *et al*., 2021).

Regular physical activity is essential for reducing obesity and improving overall health. It helps lower abdominal and visceral fat, reduces cardiometabolic risks, and increases muscle mass and endurance (Ross & Bradshaw, 2009). Implement lifestyle changes that combine exercise and a nutritious diet to manage obesity effectively (Strasser, 2012). Exercise may lead to a small immediate weight loss of 2-3 kg, but its benefits are much greater. It improves heart health, lowers belly fat, increases insulin sensitivity, and boosts overall fitness, helping to reduce obesity-related health risks (Oppert *et al*., 2025; Oppert *et al*., 2023). Engaging in physical exercise is important for maintaining weight loss and increasing lean body mass, even with antiobesity drugs. Resistance training helps preserve muscle mass for metabolic health (Grosicki *et al*., 2024). Exercise programs are most effective when they include both aerobic and resistance training (Oppert *et al*., 2023). Physical activity is vital for health-related quality of life (HRQL) and improves outcomes for everyone, regardless of weight. The benefits of regular exercise may outweigh those of weight loss alone (Herman *et al*., 2012). Higher fitness and physical activity are linked to lower mortality risk, regardless of BMI (Pedersen, 2007). Weight loss helps manage obesity, but the health benefits of regular physical activity are more important. Encouraging consistent exercise can greatly improve health, even without weight loss (Pacy *et al*., 1986).

**MENTAL HEALTH BENEFITS**

Physical activity significantly affects mental health and well-being, impacting a wide range of psychological outcomes. Consistent exercise has been linked to numerous mental health benefits, such as lower stress and anxiety levels, improved mood, enhanced cognitive abilities, and an overall elevated quality of life. First, exercise is crucial for alleviating symptoms of depression and anxiety. It is beneficial in controlling mild to moderate mental health issues, such as depression, primarily because it boosts the release of neurotransmitters and neurotrophic factors that support brain health (Festa *et al*., 2023). Exercise therapy is frequently suggested for those experiencing different mental health issues because it can greatly enhance mood and reduce symptoms associated with anxiety and depression (Mahindru *et al*., 2023; Paluska & Schwenk, 2000).

Additionally, the beneficial effects of physical activity encompass enhancements in cognitive abilities. Engaging in exercise has been associated with improved cognitive functions, such as attention, memory, and executive functions. These enhancements are believed to stem from alterations in brain structure and function, including increased gray matter volume and changes in the brain networks that manage cognitive tasks (Festa *et al*., 2023). These brain adjustments assist in preserving mental function and counteracting the cognitive decline associated with aging. Beyond the advantages for thinking and emotions, consistent physical activity enhances individuals' quality of life by fostering a feeling of empowerment and control over health issues. For those experiencing significant mental health challenges, engaging in exercise has demonstrated improvements in symptoms, sleep habits, and social connections, leading to an overall enhancement in quality of life (Alexandratos *et al*., 2012). Social skills and engagement fostered through group activities can play a role in these enhancements, particularly for older individuals who might benefit from participation in community-focused initiatives (Hou *et al*., 2024). Additionally, engaging in physical exercise not only helps address current mental health problems but also plays a role in averting the onset of new conditions. For young people, consistent involvement in sports and physical activities is associated with a decreased likelihood of developing mental health disorders (Kauczor-Rieck *et al*., 2024).

Green areas are gaining recognition for their beneficial impact on mental well-being. The availability of green spaces in living areas has been associated with notable decreases in symptoms of anxiety, depression, and stress. Studies indicate that greater amounts of green space in neighborhoods are linked to enhanced mental health results, hinting at possible approaches for enhancing mental health on a broader scale via greening projects (Beyer *et al*., 2014).

A study carried out amid China's swift urban growth revealed that green areas contribute positively to mental well-being by increasing residents' contentment with their surroundings. This sense of satisfaction acts as a mediator in boosting mental health, underscoring the significance of the personal experiences linked to green spaces (Qiao *et al*., 2021). Green areas enhance mental well-being by encouraging physical activity and diminishing feelings of anxiety and depression, especially in home environments during difficult times such as the COVID-19 pandemic (Li *et al*., 2022).

In city settings, guaranteeing fair access and maximizing green areas can boost their mental health advantages. Regular visits to these green spaces are linked to lower stress and anxiety, better mood, and heightened energy among visitors. These results highlight the significance of promoting the use of green spaces through modifications in urban design and social initiatives (Niazi and Khan, 2024).

**SOCIAL BENEFITS**

The connection between urban green spaces and social cohesion is significantly important. These environments promote interactions among individuals, strengthening social ties and fostering community involvement. Favorable social exchanges in green spaces can enhance social cohesion, which subsequently benefits both physical and mental well-being (Jennings and Bamkole, 2019; Ziaesaeidi, 2025). Urban parks serve as vital drivers for community engagement, offering settings that foster both physical exercise and social connections for individuals of all ages. The sense of security and the recreational amenities present in these areas notably influence the extent and vigor of activities pursued, especially by younger individuals (Bao *et al*., 2023).

Community gardening provides various social advantages that strengthen social ties, promote a sense of belonging, identity, and support, and ultimately mitigate feelings of isolation. Research emphasizes the significant effects of community gardening in encouraging these benefits.

**Enhanced Sense of Place and Identity:** Community gardens play a significant role in place-making, allowing individuals to cultivate feelings of belonging and identity through their involvement in gardening. They offer a distinctive opportunity to engage with nature, motivating participants to take pride in their local surroundings and community (Truong *et al*.,2022). For those living in cities, community gardens foster a sense of belonging that goes beyond conventional urban life, enabling connections with nature and the larger community to be made (Mcguire *et al*., 2022).

**Enhanced Social Support and Reduced Feelings of Loneliness:** The collaborative aspect of gardening naturally cultivates support systems among those involved, which play a vital role in mental health. Participating in a community garden creates an environment of camaraderie, collective experiences, and reciprocal assistance, significantly diminishing sensations of seclusion and loneliness (Wang & Macmillan, 2013). In addition, it enables people to participate in significant activities that enhance their well-being while fostering supportive community connections (Lovell *et al*., 2014).

**MECHANISMS UNDERLYING THE HEALTH BENEFITS OF UGS**

Urban green spaces offer numerous health advantages via different pathways. Important theories and mechanisms consist of the following:

**Biophilia and Nature Connectedness:** The biophilia hypothesis suggests that humans possess an inherent bond with nature. This relationship can strengthen health-promoting advantages, including stress reduction and social cohesion. Urban gardens can promote biophilia by boosting encounters and favorable interactions with nature and nurturing emotional ties that improve overall well-being (Lin *et al*., 2018; Stoltz and Schaffer, 2018).

**Stress Reduction Theory:** UGSs are recognized for their ability to diminish stress by fostering direct interaction with natural surroundings, which can ease psychosocial tension. Studies indicate that even minor amounts of greenery can yield notable stress-relief advantages, as evidenced by indicators such as decreased blood pressure across different demographics (Gu *et al*., 2022; Huang *et al*., 2021).

**Urban Green Spaces as Therapeutic Landscapes:** The idea of therapeutic landscapes, including healing gardens in urban green spaces, presents numerous health advantages by offering areas intended for physical exercise, relaxation, and mental rejuvenation. These landscapes are integral to the biophilic city planning initiative, which prioritizes the inclusion of nature in urban environments to enhance overall well-being (Dushkova and Ignatieva, 2020). Therapeutic landscapes and gardens are designed to provide sensory engagement and foster emotional ties with nature, effectively acting as preventative health resources (Dushkova and Ignatieva, 2020).

**Cognitive and Physical Benefits through Perceived Naturalness:** Perceived naturalness, which refers to the awareness of biodiversity and natural traits in urban spaces, greatly influences cognitive well-being. Urban green spaces (UGS) that exhibit a high level of perceived biodiversity and visual attractiveness, featuring diverse plant forms and bright colors, are linked to enhanced restorative benefits and an increased feeling of satisfaction and connection to nature (Hoyle *et al*., 2019).

**Enhancing Well-being through Recreational Activities:** Participation in leisure activities in urban green spaces boosts physical health while strengthening social connections and fostering a relationship with nature, both vital for mental wellness. Well-designed recreational areas in urban green spaces, such as playgrounds and pathways, promote physical exercise and act as settings for social engagement, both of which help alleviate mental stress and enhance overall health (Southon *et al*., 2017).

**7. DISCUSSION**

Urban green spaces (UGS) play a crucial role in improving human health in physical, mental, and social aspects. They reduce air pollution, a major cause of respiratory and heart diseases, leading to fewer hospital visits, lower healthcare costs, and better quality of life, especially for children and the elderly. UGS encourage physical activity, aiding in the fight against obesity and diabetes. Mental health is also improved by restoring cognitive functions, enhancing mood, and reducing psychological distress. Nature exposure aids in recovering mental energy and easing stress, leading to lower anxiety and depression, improved emotional resilience, especially in stressful urban areas. Physical activity in green spaces supports both mental and physical health, especially during crises like the COVID-19 pandemic.

UGS serve as essential community centers that strengthen social ties, reduce isolation, and promote interactions among different generations and cultures. Community gardening fosters connections and support networks, benefiting public health and encouraging positive behaviors. The text emphasizes the preference for natural environments, which can lower stress and enhance urban living. Quality green space design, focusing on naturalness and biodiversity, is crucial. Furthermore, it notes that access to green spaces is often unequal, especially for marginalized groups, and stresses the need for careful planning to ensure inclusivity and equity.

The integration of urban green spaces (UGS) with climate resilience strategies is important. Green infrastructure supports individual health and environmental health by regulating temperature, preserving biodiversity, and managing stormwater. UGS provide co-benefits that link urban health, sustainability, and climate adaptation. However, there are gaps in research, such as a lack of long-term studies on health impacts and the need to understand how cultural, socioeconomic, and age differences affect engagement with UGS. User feedback and community involvement in UGS design and maintenance could enhance their use and effectiveness.

**8. CONCLUSION**

Enhancing physical, mental, and social well-being, urban green spaces (UGS) are essential parts of sustainable and healthy metropolitan surroundings. The many health benefits provided by UGS—including improved air quality, encouragement of physical activity, relief of psychological stress, and stronger community bonds are highlighted in this review. From a physical point of view, UGS reduce urban temperatures and filter out pollutants, hence enhancing air quality. These environmental improvements result in a lower incidence of respiratory illnesses and heat-related health problems. Moreover, green areas inspire regular exercise, therefore assisting in avoiding obesity, cardiovascular diseases, and diabetes—major problems in modern urban life.

Being in green areas helps with cognitive recovery, raises mood, and lowers stress both mentally. Ideas such Biophilia, Stress Reduction, and Attention Restoration show how natural environments help in recovering from psychological tiredness and emotional suffering. These benefits became especially obvious during the COVID-19 epidemic as many people looked for comfort and healing in parks and green areas. Socially, urban green areas serve as readily available meeting places that strengthen social contacts, reduce sense of isolation, and promote community involvement. Elements like playgrounds, hiking routes, and communal gardens provide chances for major contacts, especially among seniors, families, and underprivileged groups.

One of the biggest issues, though, continues to be unequal access to green areas. Low-income and disadvantaged groups frequently face obstacles brought on by inadequate distribution, maintenance, or safety. Maximizing their health advantages requires careful, inclusive urban planning ensuring fair access. Urban green areas are necessary infrastructure for constructing more just, resilient, and healthy cities not extra amenities in essence. Ensuring all inhabitants can benefit from nature's healing ability calls for giving their design, accessibility, and inclusion into public health and city plans first priority.

**9. FUTURE DIRECTION**

Longitudinal and cross-discipline studies should be the center of future research to help us to better grasp the long-term health effects of urban green areas (UGS). Using GIS-based spatial analysis, especially in neglected areas, initiatives must give equal access first priority. Including UGS with biodiversity objectives, public health policy, and climate resilience will improve their multifunctional value. Design and maintenance community involvement might increase inclusivity and efficiency. Furthermore, real-time monitoring should be made using developing technologies including mobile data and remote sensing. Basically, strategic urban design has to fully integrate UGS to advance health-optimized, resilient, and sustainable cities.

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

We, Ashish Tigga, Dr. Ayushi Trivedi , Dr. Amit Dixit and Prachi Sahu, hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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