Urban Environment, Green Spaces, and Mental Health: An Interdisciplinary Investigation

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Abstract

The purpose of this study is to investigate the complex interaction between metropolitan settings and mental health, with a particular emphasis on depression. It takes into account factors such as pollution, noise, limited green spaces, and overcrowding, and it uses a multidisciplinary approach to establish a compelling connection between urban living conditions and depression rates. This connection is established by drawing on research that has already been conducted. In addition to this, it investigates the possibility of natural settings and green areas being able to alleviate symptoms of depression. More specifically, it examines the psychological advantages of being exposed to nature in urban environments and evaluates the efficiency of urban planning strategies that give green infrastructure a higher priority. The study also explores the association between an individual's commitment to environmentalism and their mental health, and it looks at eco-friendly practices as potential techniques for coping with mental health issues. In addition, it analyzes the activities taken by Greenpeace to promote awareness of mental health issues in the context of environmental degradation and climate change, as well as their impact on urban planning and policy. Finally, the research examines urban planning initiatives that aim to improve mental well-being while also addressing environmental issues. It does this by analyzing successful case studies and determining whether or not these treatments can be scaled up in a variety of urban settings. This in-depth investigation aims to provide politicians, urban planners, and mental health advocates with useful information that may be used to create urban settings that are healthier and more sustainable.

Keywords: *Urban Environment, Mental Health, Green Spaces, Natural Environments, Environmentalism, Greenpeace*

Introduction

The Impact of Urban Environment on Mental Health is a complex and urgent issue that necessitates a comprehensive examination due to its multifaceted nature. With more than half of the global population currently residing in urban areas, urbanization has rapidly become a predominant feature of modern society. This shift in population distribution has brought about significant alterations in living conditions, prompting

heightened concerns regarding its potential ramifications on mental health. The primary objective of this extensive study is to delve into the intricate relationship between urban environments and the prevalence of depression. To achieve this, an array of factors within urban settings, including pollution, noise pollution, limited access to green spaces, and overcrowding, will be scrutinized to ascertain the extent of their influence on the escalating rates of mental health issues among urban dwellers [1]. Furthermore, this investigation will rely on existing research findings and firsthand observations to establish a compelling correlation between the subpar living conditions prevalent in urban areas and the alarmingly high incidence of depression observed worldwide [2]. Urbanization, defined by the United Nations as the "process by which populations grow, and rural areas become urban areas," has led to a significant migration of individuals from rural to urban environments. This mass movement is primarily driven by economic opportunities, access to healthcare, education, and other amenities that urban areas often provide. As a result, cities are expanding at an unprecedented rate, and their impact on mental health is becoming increasingly evident [3].

One of the key factors to consider in this investigation is the role of pollution in urban environments. Urban areas are notorious for high levels of air pollution, primarily due to industrial activities, transportation, and construction. Prolonged exposure to air pollutants, such as fine particulate matter (PM2.5) and nitrogen dioxide (NO2), has been linked to a range of mental health issues, including depression and anxiety. Studies have shown that individuals living in areas with poor air quality are at a higher risk of developing mental health disorders [4]. Therefore, addressing air pollution in urban areas is crucial for mitigating its adverse effects on mental health.

Figure 1.
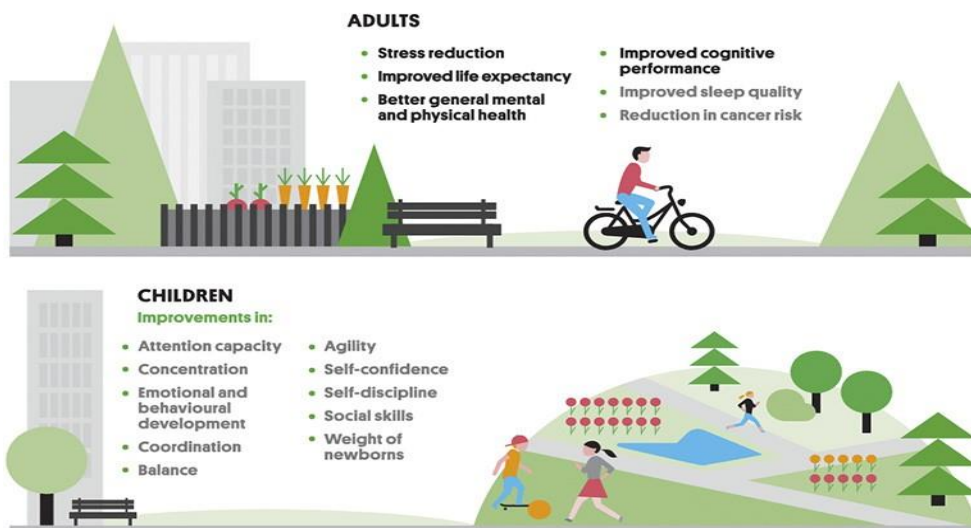
Noise pollution is another significant aspect of urban life that can contribute to mental health problems. The constant barrage of noise from traffic, construction, and other urban activities can lead to chronic stress, sleep disturbances, and increased anxiety levels [5]. Research has demonstrated a clear association between exposure to high levels of noise pollution and an elevated risk of mental health disorders. Implementing noise reduction measures and urban planning strategies to create quieter environments can play a pivotal role in promoting better mental well-being among urban residents. The scarcity of green spaces in urban settings is another pressing concern. Urbanization often leads to the conversion of green areas into concrete jungles [6]. The absence of parks, gardens, and natural landscapes deprives residents of the therapeutic benefits of nature. Numerous studies have shown that access to green spaces can reduce stress, improve mood, and enhance overall mental health. Therefore, urban planning should prioritize the preservation and creation of green areas to counteract the detrimental effects of urban living on mental well-being. Overcrowding is a prevalent issue in many urban areas, and it can exacerbate feelings of social isolation and stress. The high population density in cities can lead to cramped living conditions, limited personal space, and increased competition for resources. These factors can contribute to a sense of social disconnection and psychological distress [7]. Addressing overcrowding through urban planning strategies, such as affordable housing initiatives and efficient public transportation systems, can help alleviate the psychological burdens associated with densely populated urban environments. Furthermore, the impact of environmental factors on mental health in urban areas cannot be understated. Urbanization brings with it a multitude of stressors and environmental challenges, including noise pollution, air pollution, overcrowding, and limited green spaces. These factors can contribute to increased levels of stress, anxiety, and depression among urban dwellers. Noise pollution, for instance, can disrupt sleep patterns, leading to chronic sleep deprivation, which is linked to various mental health disorders. Air pollution, on the other hand, has been associated with cognitive decline and an increased risk of psychiatric disorders [8]. The scarcity of green spaces in many urban areas deprives residents of opportunities for relaxation and stress reduction, further exacerbating mental health issues. Therefore, urban planning and development must prioritize the creation of green and sustainable spaces, as well as measures to reduce pollution, to promote better mental well-being in cities [9].

In addition to these environmental factors, socioeconomic disparities in urban areas also play a significant role in mental health outcomes. Low-income individuals in urban settings often face greater challenges in accessing mental health services and coping with the stressors of urban life. Economic hardship can lead to chronic stress, which is a known precursor to mental health disorders such as depression and anxiety. Moreover, individuals from marginalized communities may experience discrimination, social isolation, and limited educational and employment opportunities, all of which can have

detrimental effects on mental health. Therefore, addressing economic inequality in urban areas is crucial to improving mental well-being [10].

Access to mental health care services is another critical aspect of enhancing mental health in urban environments. Despite the prevalence of mental health issues in cities, there is often a shortage of mental health care providers, particularly in low-income neighborhoods. This shortage can result in long wait times for appointments and limited access to evidence-based treatments. Additionally, the stigma surrounding mental health in many urban communities may deter individuals from seeking help when needed [11]. To address these challenges, policies and initiatives must be implemented to increase the availability of mental health care services in urban areas, especially in underserved communities. This includes expanding the mental health workforce, providing culturally competent care, and implementing public awareness campaigns to reduce stigma. Community-based interventions also hold promise in improving mental health outcomes in urban settings [12]. These interventions can involve partnerships between local organizations, healthcare providers, and community leaders to provide accessible mental health support and resources. For example, community centers can offer counseling services, support groups, and educational workshops to residents, making mental health care more accessible and reducing the stigma associated with seeking help. Moreover, collaboration between schools and mental health professionals can facilitate early identification and intervention for mental health issues among children and adolescents in urban areas. In the course of this inquiry, we will be concentrating mostly on Green Spaces as a Potential Solution to the Crisis in Urban Mental Health [13]. The incorporation of green spaces, such as parks, gardens, and natural habitats, into urban design has attracted a lot of attention as a possible solution to the mental health problems that are caused by living in an urban environment. In the course of this investigation, the psychological advantages that coming into contact with nature and greenery in urban settings might provide will be thoroughly investigated. In an effort to reduce the prevalence of mental health problems, this study will conduct an analysis of the efficacy of various urban planning techniques that place a higher priority on the generation and preservation of green spaces. This research attempts to provide a complete assessment of the role green spaces can play in reducing the urban mental health crisis by reviewing empirical facts and the perspectives of experts [14].

Environmentalism as a Coping Mechanism is another facet of this multifaceted study. In recent years, there has been a growing emphasis on individual and collective actions aimed at environmental preservation [15]. This inquiry will delve into the intricate relationship between an individual's commitment to environmentalism and their mental health. It will explore the potential psychological benefits of engaging in eco-friendly practices, such as recycling, reducing one's carbon footprint, or actively participating in environmental activism. Furthermore, this research will systematically analyze the mediating factors that might influence the relationship between environmentalism and psychological well-being. By providing empirical insights and a rigorous examination

of existing literature, this study aims to shed light on the therapeutic potential of environmental engagement in an increasingly urbanized world [16]. Greenpeace and Mental Health Advocacy represent a critical aspect of this investigation. Greenpeace, as a prominent environmental organization, has been actively involved in campaigns related to mental health and environmental issues [17]. This research will meticulously assess the initiatives and campaigns led by Greenpeace that highlight the mental health consequences of environmental degradation and climate change. It will critically analyze the effectiveness of Greenpeace's efforts in influencing urban planning and policy to address these issues. Through an empirical examination of Greenpeace's advocacy work and its impact, this study seeks to provide a nuanced understanding of the interplay between environmental activism and mental health advocacy, offering insights into how such organizations can contribute to addressing the urban mental health crisis [18].

Lastly, Urban Planning Interventions will be a central point of analysis in this study. Urban planning plays a pivotal role in shaping the living conditions of urban populations. This research will critically evaluate urban planning interventions that aim to address both environmental concerns and mental health issues concurrently. It will delve into case studies of cities or regions that have successfully implemented policies and practices prioritizing sustainable urban development while simultaneously enhancing residents' mental well-being [19]. Furthermore, this inquiry will assess the feasibility of scaling up these interventions in various urban contexts, taking into account the diverse challenges and opportunities that different urban settings present. By scrutinizing these interventions and their outcomes, this research seeks to provide actionable insights for policymakers, urban planners, and stakeholders interested in fostering healthier and more sustainable urban environments [20].

The Impact of Urban Environment on Mental Health:

Research into the relationship between urban environments and the prevalence of depression has been a subject of considerable scientific scrutiny in recent years. Urbanization is a global phenomenon, and a growing majority of the world's population now resides in urban areas. This shift towards urban living has raised concerns about its potential impact on mental health, particularly in relation to depression. Several factors associated with urban environments have been identified as potential contributors to the higher prevalence of depression in urban populations. One of the key factors contributing to the higher prevalence of depression in urban areas is the increased levels of stress associated with urban living. Urban environments are often characterized by higher population densities, traffic congestion, noise pollution, and a fast-paced lifestyle [21]. These factors can lead to chronic stress, which has been strongly linked to the development of depression. The constant hustle and bustle of city life can result in a sense of social isolation, as individuals may feel disconnected from

their neighbors and communities. This social isolation can further exacerbate feelings of depression [22].

Figure 2.

Another significant factor is the limited access to green spaces in urban areas. Urbanization often leads to the conversion of natural landscapes into concrete jungles, leaving residents with limited opportunities for outdoor activities and exposure to nature. Studies have shown that access to green spaces and natural environments can have a positive impact on mental health, reducing stress and symptoms of depression [23]. The lack of such spaces in urban settings can deprive individuals of these therapeutic benefits, potentially contributing to the higher prevalence of depression. Furthermore, the built environment in urban areas can also play a role in the development of depression. High-rise buildings, crowded living conditions, and limited access to natural light can create a sense of confinement and claustrophobia, which can negatively impact mental well-being. Additionally, the disparity in living conditions within urban areas, with some individuals enjoying luxurious lifestyles while others struggle with substandard housing, can lead to feelings of inequality and social injustice, further increasing the risk of depression [24].

The socio-economic factors associated with urbanization also cannot be overlooked. Urban areas tend to have higher living costs, which can lead to financial stress and economic disparities among residents. The pressure to succeed in competitive urban environments can result in work-related stress and burnout, which are closely linked to depression. Moreover, the availability and accessibility of healthcare services in urban areas can vary widely, with underserved communities facing barriers to accessing mental health care. This disparity in healthcare can hinder early intervention and treatment for individuals at risk of or experiencing depression. In addition to these factors, the prevalence of substance abuse in urban areas can exacerbate the risk of depression [25]. Urban environments often have higher rates of substance use and

abuse, including alcohol and illicit drugs. Substance abuse is a known risk factor for depression, as it can lead to chemical imbalances in the brain and exacerbate emotional instability. The availability and social acceptance of substance use in urban settings can make it more challenging for individuals struggling with addiction to seek help and recover [26].

One of the foremost factors is pollution. Urban areas often exhibit higher levels of air pollution due to increased industrial activities and traffic congestion. Numerous studies have demonstrated a significant correlation between exposure to air pollutants and an increased risk of depression. Prolonged exposure to pollutants such as fine particulate matter (PM2.5) and nitrogen dioxide (NO2) has been linked to the development of depressive symptoms. These findings underscore the need for stringent environmental regulations in urban areas to mitigate the adverse effects of pollution on mental health. Noise pollution poses a significant threat to mental health in urban areas, further amplifying depression rates among city dwellers [27]. The urban landscape, with its incessant traffic, ongoing construction, and a multitude of human activities, creates a continuous soundscape that individuals are forced to contend with. The consequences of chronic exposure to high noise levels are far-reaching and alarming. Research has consistently linked noise pollution to heightened stress levels, disrupted sleep patterns, and an increased susceptibility to depression. This intrusive auditory assault intrudes upon individuals' daily lives, undermining their routines, and depriving them of the tranquility necessary for mental well-being [28].

One of the most evident consequences of noise pollution in urban settings is the elevated stress levels experienced by residents. The cacophony of sounds, whether from blaring car horns or the relentless hum of machinery, places a considerable burden on individuals' nervous systems [29]. This constant auditory stimulation triggers the body's stress response, leading to the release of stress hormones such as cortisol. Over time, the cumulative effect of heightened stress can take a severe toll on mental health. Chronically stressed individuals are more prone to anxiety and depressive disorders, as the constant barrage of noise leaves them in a perpetual state of alertness and unease [30]. This chronic stress is a contributing factor to the increasing prevalence of depression in urban populations. Furthermore, noise pollution in urban areas disrupts the delicate balance of sleep, causing widespread sleep disturbances among city residents. Sleep is essential for maintaining emotional and psychological equilibrium, and the inability to obtain restful sleep due to noise pollution can have dire consequences. Noise-induced sleep disruptions not only reduce the quantity of sleep but also diminish its quality. The brain struggles to enter the deeper stages of sleep required for restoration and rejuvenation, leaving individuals feeling perpetually fatigued and mentally drained. Sleep-deprived individuals are more susceptible to mood disorders such as depression, as the lack of restorative sleep exacerbates negative emotions and impairs cognitive function. In addition to stress and sleep disturbances, noise pollution's adverse impact on mental health is exemplified by its role in increasing the risk of

depression. A growing body of evidence suggests a direct correlation between chronic noise exposure and depressive disorders. Prolonged exposure to noise pollution can erode an individual's resilience, making them more vulnerable to the development of depression. The relentless auditory assault in urban areas can lead to feelings of helplessness and frustration, exacerbating existing depressive symptoms or triggering the onset of depression in susceptible individuals [31].

The intrusive nature of noise pollution also hinders individuals' ability to find solace and respite from the demands of urban living. Parks and green spaces, traditionally sought-after sanctuaries for relaxation and contemplation, are often marred by the sounds of nearby traffic or construction. This compromises their effectiveness in providing a much-needed escape from the urban clamor. As a result, individuals have limited opportunities to disconnect from the chaos of urban life, leaving them without the means to recharge and restore their mental well-being [32]. This constant exposure to noise pollution without the prospect of relief contributes significantly to the high rates of depression in urban populations. Lack of green spaces in urban areas represents a substantial challenge to mental well-being. Green spaces, such as parks and gardens, offer opportunities for relaxation and physical activity, both of which are essential for mental health [33]. The scarcity of such areas in densely populated urban environments can limit residents' access to nature and its therapeutic benefits. Research has consistently shown that proximity to green spaces correlates with lower depression rates, emphasizing the importance of urban planning that prioritizes the inclusion of green areas within cities. Overcrowding is yet another factor linked to urban environments and their influence on depression. In densely populated cities, overcrowded living conditions can lead to increased stress and reduced privacy. The lack of personal space and constant exposure to large crowds can contribute to feelings of social isolation and heightened psychological distress, factors that are closely associated with depression. Adequate urban planning, including the development of affordable housing options and public transportation systems, is essential to alleviate the strain of overcrowding on mental health [34].

Green Spaces as a Potential Solution:

Green spaces and natural environments hold a crucial position in urban settings, exerting a profound influence on mental well-being by effectively mitigating depression. The significance of these areas in the context of psychological well-being cannot be overstated. In the bustling, high-paced urban life, they serve as sanctuaries, providing individuals with much-needed solace and respite from the daily grind. Scientific research has consistently corroborated the psychological benefits of exposure to nature and greenery, underscoring their potential to alleviate the burden of mental health issues prevalent in urban populations. The documented advantages of being amidst green spaces extend to the reduction of depression, anxiety, and stress levels. Numerous empirical studies have established a tangible link between spending time in

natural environments and a marked decrease in these mental health challenges. One of the key mechanisms underlying this phenomenon is the modulation of cortisol levels, the stress hormone, when individuals engage with nature [35]. Exposure to greenery has been shown to lower cortisol production, resulting in a reduced state of physiological stress. Simultaneously, the interaction with natural settings triggers an increase in the production of serotonin, a crucial neurotransmitter associated with mood regulation. This dual action of reducing stress hormones and enhancing mood regulation contributes significantly to an overall sense of calm and relaxation. Consequently, individuals who regularly immerse themselves in green spaces find themselves better equipped to manage and, in some cases, overcome the symptoms of depression [36].

In urban settings, where the frenetic pace of life often fosters a relentless cycle of stress and anxiety, the importance of green spaces becomes even more pronounced. The concrete jungles that define modern cities can be overwhelming, leaving residents susceptible to the detrimental effects of chronic stress. The availability of green spaces within urban landscapes presents a tangible solution to this problem. By offering a refuge from the demands of city life, these spaces serve as tranquil oases where individuals can momentarily escape the pressures of their daily routines. As a result, the mental health benefits derived from such respites extend beyond temporary relief. The cumulative effect of regular exposure to green environments helps build resilience against the onslaught of urban stressors, thereby promoting overall mental well-being. Furthermore, the therapeutic potential of green spaces is underscored by their ability to facilitate mindful experiences. The natural world encourages individuals to engage their senses fully, fostering a state of mindfulness and presence in the moment. This mindful immersion in nature allows individuals to temporarily disengage from the incessant rumination and worries that often accompany depression. The sights, sounds, and scents of the natural world provide a sensory-rich environment that captivates the mind, redirecting it away from the negative thought patterns characteristic of depressive states. This redirection not only offers immediate relief but also contributes to a broader sense of mental clarity and emotional balance over time. Urban planning strategies that prioritize the creation and maintenance of parks, gardens, and green infrastructure have proven effective in improving mental health. Well-designed green spaces provide opportunities for physical activity and social interaction, both of which are essential for mental well-being. Accessible and well-maintained green areas in urban environments encourage people to engage in outdoor activities, such as walking or jogging, which have been linked to improved mood and reduced symptoms of depression. Furthermore, the aesthetic and sensory appeal of nature can stimulate positive emotions and provide a sense of escape from the urban jungle. Moreover, green spaces in urban areas serve as a buffer against environmental stressors [37]. They help reduce noise and air pollution, which can have detrimental effects on mental health. Urban planning that integrates green infrastructure not only enhances the physical environment but also

contributes to improved mental well-being. Additionally, green spaces foster a sense of community and belonging, as they often serve as gathering places for social interaction and community events. This social aspect of green spaces can combat loneliness and isolation, common factors contributing to depression in urban populations [38].

In addition to the evident advantages of green infrastructure for mental health, it is crucial to underscore the economic benefits that such investments can yield. Research underscores that cities equipped with well-planned and well-maintained green spaces often find themselves more attractive to both businesses and residents. These green areas not only enhance the aesthetic appeal of the urban environment but also contribute to the overall quality of life, making cities more competitive in terms of attracting talent and fostering economic growth. Moreover, investing in green infrastructure for mental health can result in substantial cost savings in the healthcare sector. As numerous studies have indicated, access to green spaces and exposure to nature have a direct and positive impact on mental well-being, reducing stress and anxiety among individuals. Consequently, individuals who have regular access to such green spaces are less likely to require medical treatment for mental health issues. This reduction in the prevalence of mental health disorders can lead to a significant decline in healthcare costs associated with diagnosis, treatment, and hospitalization. These cost savings can then be reinvested in other essential healthcare initiatives or channeled into further developing green infrastructure [39]. Furthermore, green infrastructure investments can generate long-term economic benefits by bolstering property values in the surrounding areas. Homes and properties located in proximity to well-maintained green spaces tend to command higher prices, resulting in increased property tax revenue for local governments. This additional revenue can be allocated to various public services, including education, infrastructure development, and social welfare programs, thus promoting the overall well-being of the community.

Environmentalism as a Coping Mechanism:

The investigation into the relationship between an individual's commitment to environmentalism and their mental health is a multifaceted subject that resides at the intersection of psychology and environmental studies. Numerous studies have sought to explore this intricate relationship and have consistently revealed a compelling connection between an individual's level of environmental commitment and their mental well-being. One of the primary findings in this area of research is that individuals who actively engage in eco-friendly practices tend to experience a more positive psychological state [40]. This observation can be elucidated by examining several key factors. First and foremost, individuals who embrace environmentalism often report a heightened sense of purpose and fulfillment in their lives. Engaging in eco-conscious activities, such as recycling, reducing their carbon footprint, or participating in environmental activism, imbues individuals with a sense of contributing to a greater cause. This purpose-driven motivation fosters a positive psychological state

characterized by increased life satisfaction and overall well-being. In essence, environmental commitment provides individuals with a meaningful context for their actions, which can have profound psychological implications.

Furthermore, the relationship between environmental commitment and mental health is underpinned by the social aspects of eco-conscious behaviors. Active involvement in environmental communities and groups can lead to an expansion of an individual's social network, providing them with a greater sense of belonging and connectedness. This increase in social connections can serve as a buffer against loneliness and social isolation, which are known risk factors for poor mental health. Environmental enthusiasts often find solace in the camaraderie and shared values of their eco-community, contributing positively to their psychological state. A notable psychological benefit of a strong commitment to environmentalism is the reduction of eco-anxiety. As environmental issues continue to escalate, many individuals experience a growing sense of eco-anxiety, which arises from concerns about the impending ecological challenges facing our planet. However, actively engaging in eco-friendly practices and environmental advocacy allows individuals to confront these concerns proactively. This proactive engagement can mitigate eco-anxiety by providing a sense of agency and control over the environmental issues at hand. In essence, the act of taking concrete steps to address environmental problems can alleviate the psychological distress associated with these concerns [41].

It is essential to recognize that the relationship between environmental commitment and mental health is not unidimensional and may vary among individuals. Factors such as the degree of environmental involvement, personal values, and the level of environmental stressors in one's life can modulate this relationship. Additionally, the causality of this relationship remains a subject of ongoing research, with some studies suggesting that individuals with better mental health may be more inclined to engage in environmental activities, while others propose that environmental engagement can lead to improved mental health outcomes. Another crucial dimension of the connection between environmental commitment and mental health is the alleviation of stress and anxiety through nature-based experiences. Numerous studies have highlighted the therapeutic benefits of spending time in natural environments, often referred to as "ecotherapy" or "green therapy." When individuals immerse themselves in natural settings, such as parks, forests, or even their own gardens, they tend to experience reduced levels of stress and anxiety. The tranquility and beauty of nature have a calming effect on the mind, which can help in coping with the pressures and challenges of daily life. Furthermore, exposure to green spaces has been associated with improved mood and reduced symptoms of depression. This suggests that fostering a strong connection with nature as part of one's environmental commitment can lead to better mental health outcomes. Moreover, the relationship between environmental commitment and mental health extends to the social dimension. Engaging in eco-friendly practices often involves participating in environmental groups, volunteering for conservation efforts,

or advocating for sustainable policies. These social interactions can have a profound impact on an individual's mental well-being. Being part of a like-minded community can provide a sense of belonging and social support, which are essential for maintaining good mental health [42]. Environmental organizations and initiatives often foster a strong sense of camaraderie among their members, and working together towards a common goal, such as protecting the environment, can enhance individuals' social connections and reduce feelings of isolation or loneliness.

Furthermore, environmental commitment can act as a buffer against the negative psychological effects of climate change-related distress. As the world faces increasing environmental challenges, including extreme weather events, rising sea levels, and ecosystem degradation, many individuals experience anxiety and fear about the future. However, those who are actively engaged in environmental conservation efforts may find solace in knowing that they are taking meaningful steps to address these issues. Their commitment to sustainability can serve as a source of resilience, helping them navigate the emotional toll of environmental crises more effectively. This proactive approach to environmental challenges not only benefits the planet but also reinforces a sense of control and purpose in individuals' lives, which can mitigate the psychological distress associated with climate change. Additionally, environmental commitment can lead to greater mindfulness and a deeper connection with the world around us. When individuals actively engage with the environment, whether through gardening, hiking, or simply being more attentive to their surroundings, they tend to develop a heightened sense of awareness and appreciation for the natural world. This mindfulness can cultivate a sense of awe and wonder, which has been linked to improved mental health outcomes. Moreover, adopting a more sustainable lifestyle often involves slowing down, consuming mindfully, and reducing materialism. These practices align with principles of mindfulness and have the potential to reduce stress and enhance psychological well-being by promoting a more balanced and meaningful approach to life. Engagement in eco-friendly practices often leads to increased social connections and a sense of belonging. Participation in environmental activism or joining local environmental groups can foster a sense of community and camaraderie among like-minded individuals. These social connections offer emotional support, reduce feelings of isolation, and enhance an individual's overall mental health. Additionally, the exchange of knowledge and experiences within these communities can lead to personal growth and development, further contributing to improved psychological well-being.

Another critical aspect to consider is the reduction of eco-anxiety. The growing awareness of environmental issues, such as climate change and biodiversity loss, has led to an increase in eco-anxiety among individuals who are concerned about the planet's future. Engaging in eco-friendly practices and environmental activism allows individuals to address their concerns proactively. This sense of agency and empowerment in the face of environmental challenges can mitigate feelings of helplessness and anxiety, leading to improved mental health outcomes. Mediating

factors in the relationship between environmental commitment and mental health also include the perception of personal control and self-efficacy. As individuals take steps to reduce their carbon footprint or actively participate in environmental advocacy, they develop a stronger sense of control over their own lives and the environment. This enhanced sense of self-efficacy can lead to improved mental health by reducing feelings of powerlessness and fostering a belief in one's ability to effect positive change.

Greenpeace and Mental Health Advocacy:

Greenpeace, a globally recognized international environmental organization, has demonstrated a growing acknowledgment of the intricate relationship between environmental challenges and mental health concerns. In recent years, Greenpeace has undertaken a significant initiative to raise awareness about the profound impact of environmental degradation and climate change on mental well-being. This initiative encompasses a multifaceted approach, utilizing a variety of communication channels such as reports, publications, and social media campaigns to effectively disseminate information and educate the public. The organization is committed to elucidating how climate change, pollution, and habitat destruction can precipitate adverse mental health outcomes, including heightened stress levels, anxiety, depression, and a range of other psychological issues. By illuminating these intricate connections, Greenpeace aspires to cultivate a more profound understanding of the human toll exacted by environmental degradation, thereby harnessing this knowledge as a potent instrument for advocacy. One of the pivotal aspects of Greenpeace's initiative is the production of informative reports and publications. These documents serve as a repository of meticulously researched data and evidence, highlighting the stark correlations between environmental degradation and mental health consequences. These reports are characterized by their technical rigor and are founded upon comprehensive scientific research. They meticulously detail the ways in which climate change-induced phenomena, such as extreme weather events and resource scarcity, can generate profound psychological distress among affected populations. Greenpeace's commitment to rigorous research and documentation underscores its dedication to presenting an irrefutable case for the interconnectedness of environmental issues and mental health, lending credibility to its advocacy efforts [11].

In tandem with its research-driven publications, Greenpeace leverages the power of social media campaigns to engage a broader audience in the discourse on environmental degradation and mental health. The organization recognizes the significance of social media as a tool for rapid information dissemination and public engagement. Through captivating visuals, informative infographics, and compelling narratives, Greenpeace uses social media platforms to elucidate how environmental crises can exacerbate mental health challenges. This approach enables Greenpeace to reach a diverse and global audience, transcending geographical boundaries to raise awareness and mobilize

support for their cause. Furthermore, Greenpeace's initiative extends beyond merely raising awareness; it also seeks to foster an informed and empathetic understanding of the human suffering wrought by environmental degradation . By elucidating the link between environmental issues and mental health, Greenpeace compels individuals, policymakers, and stakeholders to recognize the urgency of addressing these interconnected challenges. The organization's emphasis on empathy serves as a catalyst for change, encouraging society to prioritize environmental sustainability not only for the sake of the planet but also for the preservation of human well-being. Greenpeace has actively engaged in campaigns to influence urban planning and policy to address these issues. They collaborate with urban planners, policymakers, and grassroots organizations to advocate for sustainable urban development practices. Their efforts include campaigns to reduce air pollution, promote green spaces within cities, and advocate for public transportation systems to reduce carbon emissions. By addressing these urban environmental challenges, Greenpeace not only contributes to mitigating climate change but also improves the overall quality of life in urban areas, thereby indirectly benefiting mental health [43].

In assessing the effectiveness of Greenpeace's initiatives and campaigns, it is evident that they have made significant strides in raising awareness of the mental health consequences of environmental degradation. By leveraging their global presence and media reach, they have succeeded in capturing the public's attention and sparking conversations about this critical issue. However, the direct impact on urban planning and policy changes can be more challenging to measure. While Greenpeace's advocacy has contributed to some positive shifts in urban development, the complex nature of policy change means that progress may be slow and incremental. Greenpeace's effectiveness in influencing urban planning and policy largely depends on the willingness of governments and local authorities to adopt sustainable practices. It requires sustained effort, collaboration with other stakeholders, and a long-term vision. Greenpeace's role in this process is more about initiating dialogue, providing scientific evidence, and mobilizing public support rather than directly implementing policies. Therefore, it is crucial to recognize that their impact may not always be immediately visible, but their work serves as a catalyst for change over time.

Urban Planning Interventions:

Urban planning interventions aimed at addressing both environmental concerns and mental health issues have gained increasing importance as cities grapple with the challenges of rapid urbanization and its associated stressors. This holistic approach recognizes the interconnectedness of the environment and mental well-being within urban settings, acknowledging that the quality of the physical environment can significantly impact mental health. Examining case studies of cities or regions that have successfully implemented such policies and practices provides valuable insights into effective strategies for sustainable urban development while simultaneously enhancing

residents' mental well-being. One prominent case study that exemplifies the success of holistic urban planning is the city of Copenhagen, Denmark. Copenhagen has garnered international recognition for its commitment to sustainable urban development and prioritization of mental well-being. One of its most notable initiatives is the emphasis on creating pedestrian and cyclist-friendly streets, reducing reliance on automobiles, and expanding green spaces. This approach not only reduces pollution and congestion but also encourages physical activity and social interaction, both of which are crucial for mental health. The city's extensive network of bicycle lanes and pedestrian zones has not only decreased greenhouse gas emissions but has also contributed to a sense of community and improved mental well-being among its residents [44].

Similarly, the city of Singapore has made significant strides in integrating environmental sustainability and mental health considerations into its urban planning. Singapore has implemented a comprehensive urban greening policy that aims to enhance greenery throughout the city. The government has incentivized the construction of green roofs, vertical gardens, and the preservation of existing green spaces. These green initiatives not only combat urban heat island effects and air pollution but also provide accessible natural environments for residents to enjoy. The result is a city that promotes mental well-being by offering tranquil and aesthetically pleasing spaces that serve as escapes from the hustle and bustle of urban life. Furthermore, Melbourne, Australia, stands out as another compelling case study in the intersection of urban planning and mental health. Melbourne has embraced the "20-Minute Neighborhood" concept, which aims to create self-sustaining communities where residents can access essential services, green spaces, and recreational facilities within a 20-minute walk from their homes. This approach reduces the need for long commutes, fosters a sense of belonging, and promotes physical activity—all factors that positively influence mental health. Melbourne's commitment to this concept has led to the revitalization of local neighborhoods, increased social cohesion, and improved mental well-being among its population.

In the United States, Portland, Oregon, has also made strides in adopting holistic urban planning strategies. The city has prioritized public transportation, investing in an extensive network of buses, light rail, and streetcars [45]. This not only reduces traffic congestion and greenhouse gas emissions but also provides affordable and accessible transportation options that alleviate the financial burden on residents, reducing stress and anxiety. Portland's commitment to mixed-use development and urban density has also contributed to the creation of vibrant communities where residents can live, work, and socialize within close proximity, fostering a strong sense of belonging and mental well-being. One prominent example of a city that has successfully integrated environmental and mental health considerations into its urban planning is Copenhagen, Denmark. The city's commitment to sustainable transportation infrastructure, including extensive bicycle lanes and efficient public transportation systems, not only reduces air pollution and congestion but also encourages physical activity, which is known to have

a positive impact on mental health. Additionally, Copenhagen has prioritized green spaces and parks, offering residents accessible and aesthetically pleasing areas for relaxation and social interaction. The success of Copenhagen's approach demonstrates the potential for urban planning to create environments that promote both environmental sustainability and mental well-being.

Another noteworthy case study is Singapore, which has taken innovative measures to mitigate urban stressors and promote mental health. The city-state has implemented a comprehensive urban greenery policy that includes rooftop gardens, vertical greenery, and an expansive network of public parks. These green spaces provide essential respite from the dense urban environment, fostering a sense of tranquility and reducing the risk of mental health issues associated with urban living. Singapore's efforts showcase how thoughtful planning can incorporate green infrastructure to improve mental well-being in densely populated urban areas. As we assess the feasibility of scaling up these interventions in different urban contexts, it is essential to acknowledge the adaptability and transferability of successful strategies. While Copenhagen and Singapore are unique in their approaches, key principles can be applied universally. For instance, prioritizing efficient public transportation and reducing reliance on private vehicles can be adapted to suit the specific needs of different cities. Similarly, the incorporation of green spaces and parks can be tailored to urban areas of varying sizes and densities. Nonetheless, scaling up such interventions requires careful consideration of local factors, including socio-economic conditions, cultural preferences, and the existing urban infrastructure. It may be necessary to customize strategies to align with the specific challenges and opportunities presented by each urban context. Moreover, effective implementation often relies on collaboration among various stakeholders, including government agencies, urban planners, healthcare providers, and community organizations. Building such collaborative networks and securing the necessary funding and political support are crucial steps in realizing sustainable urban development that prioritizes both environmental concerns and mental health.

Conclusion

The relationship between urban surroundings and mental health is indeed a multifaceted subject that necessitates a comprehensive examination to grasp its intricacies fully. This study has delved into various dimensions of this intricate relationship, each offering unique insights into the complex interplay between urban living conditions and mental well-being. One crucial aspect explored in this study is the profound impact of urban living conditions on mental health. Urban areas are often characterized by high population densities, noise pollution, air pollution, and a fast-paced lifestyle. These factors collectively contribute to elevated stress levels and increased rates of mental health disorders such as anxiety and depression among urban dwellers. The constant exposure to environmental stressors can lead to chronic psychological strain, highlighting the dire need for interventions aimed at improving urban living conditions.

In addition to examining the negative aspects of urban living, this study also emphasizes the potential of green spaces in mitigating mental health issues, particularly depression. Green spaces, such as parks and gardens, offer urban residents a respite from the concrete jungle and provide opportunities for relaxation and physical activity. The presence of greenery has been linked to lower stress levels and improved overall mental well-being. Incorporating more green spaces into urban planning can be a vital strategy for addressing the mental health challenges posed by urban environments [46].

The study delves into the role of environmentalism as a coping mechanism for individuals struggling with mental health issues in urban settings. Engaging in eco-friendly activities, such as recycling or participating in environmental conservation efforts, can provide a sense of purpose and connection to the environment, ultimately enhancing mental resilience. The integration of environmentalism into mental health support programs can be a valuable approach to holistic well-being. Organizations like Greenpeace play a significant role in raising awareness about the adverse environmental factors impacting mental health. By advocating for sustainable practices, clean energy, and reduced pollution, these organizations contribute to the broader conversation about the interconnectedness of environmental and mental health issues. Their efforts in promoting environmentally responsible behaviors are essential for fostering a healthier urban environment and, subsequently, improved mental well-being. Lastly, this study underscores the importance of urban planning interventions in addressing the challenges posed by urban surroundings to mental health. Well-thought-out urban planning can promote the creation of green spaces, reduce noise pollution, and improve overall living conditions. Implementing policies that prioritize mental health considerations in urban development plans is crucial to ensuring the well-being of current and future generations living in cities [47].

Urban environments exert a substantial influence on mental health, and this phenomenon is underscored by a plethora of empirical evidence. Among the deleterious factors linked to urban living, pollution stands as a chief culprit. The air quality in urban areas often falls below recommended standards due to high levels of vehicular emissions and industrial activity. This air pollution, comprised of particulate matter and noxious gases, has been unequivocally associated with an increased risk of mental health disorders such as depression and anxiety. Prolonged exposure to polluted air can lead to systemic inflammation, oxidative stress, and neuroinflammation, all of which have been implicated in the pathophysiology of mental health conditions. Addressing urban pollution through stringent emissions controls and green initiatives is, therefore, imperative for the preservation of mental well-being in urban populations. In addition to pollution, noise pollution is another urban scourge that has garnered attention for its detrimental impact on mental health. The constant barrage of sirens, construction noise, and traffic can induce chronic stress, sleep disturbances, and even cognitive impairments. These adverse effects have been consistently observed in urban dwellers and can contribute to the development and exacerbation of mental health disorders [48].

Noise reduction measures, such as better urban planning to minimize noise sources and the use of noise barriers, must be integrated into urban development strategies to alleviate this pervasive issue. Overcrowding, a hallmark of urban living, is a further factor that can undermine mental well-being. High population density often translates to increased competition for resources, reduced personal space, and heightened stress levels. Overcrowding has been linked to elevated levels of anxiety, aggression, and social withdrawal. To mitigate these effects, urban planners must prioritize measures that promote social cohesion, such as well-designed public spaces and community centers, and strategies to reduce housing density in key urban areas. The dearth of green spaces in urban environments is another pressing concern with dire implications for mental health. Research consistently demonstrates the positive impact of nature exposure on psychological well-being. Urban areas deficient in green spaces deny residents the opportunity to escape the concrete jungle and reap the mental health benefits associated with natural settings. Incorporating green infrastructure, including parks, gardens, and tree-lined streets, into urban design is essential to counteract the adverse mental health effects of urban living [49].

Furthermore, it is crucial to recognize that vulnerable populations, such as low-income communities, often bear the brunt of these urban mental health challenges. They are disproportionately exposed to environmental hazards, lacking access to quality healthcare and green spaces. As such, addressing urban mental health disparities requires a multifaceted approach that combines equitable urban planning, improved access to mental health services, and policies that prioritize the well-being of marginalized communities. Secondly, green spaces emerge as a potential solution to alleviate the burden of depression in urban areas. Exposure to nature and greenery has been shown to have positive psychological effects, including stress reduction and improved mood. Urban planning initiatives that emphasize the creation and maintenance of parks, gardens, and green infrastructure hold promise in enhancing mental health outcomes for city dwellers. These initiatives must be integrated into urban development plans to harness their full potential. Thirdly, the relationship between environmentalism and mental health suggests that individuals who engage in eco-friendly practices and environmental activism may experience improved psychological well-being. The sense of purpose and fulfillment derived from contributing to environmental conservation efforts can serve as a coping mechanism for individuals facing the stressors of urban life. However, further research is needed to better understand the mediating factors in this relationship and to develop targeted interventions. Fourthly, organizations like Greenpeace play a crucial role in advocating for the mental health consequences of environmental degradation and climate change. By raising awareness and conducting campaigns that connect environmental issues with mental health, Greenpeace can influence public perception and policymaking. The effectiveness of such efforts depends on the organization's ability to engage with policymakers, urban planners, and the public to drive meaningful change. Lastly, urban

planning interventions hold the key to addressing both environmental concerns and mental health issues in urban areas. Successful case studies demonstrate that sustainable urban development can enhance residents' mental well-being while promoting ecological sustainability. However, the feasibility of scaling up these interventions in different urban contexts requires careful consideration of local factors, resources, and community engagement.

References

[1] M. R. Marselle, J. Stadler, H. Korn, K. N. Irvine, and A. Bonn, "Biodiversity and health in the face of climate change," 2019.

[2] M. Alam, "Mental health impact of online learning: A look into university students in Brunei Darussalam," *Asian J. Psychiatr.*, vol. 67, p. 102933, 2022.

[3] L. Qiu, "Linking biodiversity and recreational merits of urban green spaces," *Swedish University of Agricultural Sciences: Alnarp*, 2014.

[4] I. Kowarik, "[phrase omitted] /Working With Wilderness: A Promising Direction for Urban Green Spaces," *Landscape Architecture Frontiers*, vol. 9, p. 92+, Feb. 2021.

[5] N. S. Karim and M. Alam, "Struggling with Digital Pandemic: Students' Narratives about Adapting to Online Learning at Home during the COVID-19 Outbreak," *Southeast Asia: A Multidisciplinary Journal*, vol. 21, no. 2, pp. 15–29, 2021.

[6] Z. Ahmed, M. K. Hasan, and M. J. Islam, "Urban waste management and circular economy in Bangladesh: a systematic review," *J. Int. Environ. Appl. Sci.*

[7] L. T. Pinheiro, J. F. M. Rodrigues, and D. M. Borges-Nojosa, "Formal education, previous interaction and perception influence the attitudes of people toward the conservation of snakes in a large urban center of northeastern Brazil," *J. Ethnobiol. Ethnomed.*, vol. 12, no. 1, p. 25, Jun. 2016.

[8] Y. Xu, W. Li, and S. Chi, "Altruism, Environmental Concerns, and Pro-environmental Behaviors of Urban Residents: A Case Study in a Typical Chinese City," *Front. Psychol.*, vol. 12, p. 643759, Jun. 2021.

[9] M. Alam, "Brunei's Climate Change Mitigation Policy and the Role of Civil Society," 2021. [Online]. Available: https://stratsea.com/bruneis-climate-change-mitigation-policy-and-the-role-of-civil-society/.

[10] P. Liu, M. Teng, and C. Han, "How does environmental knowledge translate into pro-environmental behaviors?: The mediating role of environmental attitudes and behavioral intentions," *Sci. Total Environ.*, vol. 728, p. 138126, Aug. 2020.

[11] D. Mossman and M. B. Kapp, "'Courtroom whores'?--or why do attorneys call us?: findings from a survey on attorneys' use of mental health experts," *J. Am. Acad. Psychiatry Law*, vol. 26, no. 1, pp. 27–36, 1998.

[12] M. Alam, "Participatory Culture and Digital Environmentalism," in *The Palgrave Handbook of Global Social Change*, R. Baikady, S. M. Sajid, V. Nadesan, J. Przeperski, I. Rezaul, and J. Gao, Eds. Cham: Springer International Publishing, 2022, pp. 1–13.

[13] C. Boorse, "What a theory of mental health should be," *J. Theory Soc. Behav.*, vol. 6, no. 1, pp. 61–84, Apr. 1976.

[14] R. G. Frank and T. G. McGuire, "Economics and mental health," *Handbook of health economics*, 2000.

[15] G. H. Brundtland, "Mental health in the 21st century," *Bull. World Health Organ.*, vol. 78, no. 4, p. 411, 2000.

[16] A. A. Widianto *et al.*, "Practising Eco-Theology: Pesantren and Green Education in Narmada Lombok, Nusa Tenggara Barat (NTB), Indonesia," 2023, pp. 118–125.

[17] "Mental health atlas 2005," 2005.

[18] M. Prince *et al.*, "No health without mental health," *Lancet*, vol. 370, no. 9590, pp. 859–877, Sep. 2007.

[19] L. Gamm, S. Stone, and S. Pittman, "Mental health and mental disorders—A rural challenge: A literature review," *Rural healthy people*, vol. 2, no. 1, pp. 97–114, 2010.

[20] M. Alam and I. A. N. Azalie, "Greening the Desert: Sustainability Challenges and Environmental Initiatives in the GCC States," in *Social Change in the Gulf Region: Multidisciplinary Perspectives*, Springer Nature Singapore Singapore, 2023, pp. 493–510.

[21] V. L. Miczajka, A.-M. Klein, and G. Pufal, "Elementary School Children Contribute to Environmental Research as Citizen Scientists," *PLoS One*, vol. 10, no. 11, p. e0143229, Nov. 2015.

[22] G. E. Southon, A. Jorgensen, N. Dunnett, H. Hoyle, and K. L. Evans, "Perceived species-richness in urban green spaces: Cues, accuracy and well-being impacts," *Landsc. Urban Plan.*, vol. 172, pp. 1–10, Apr. 2018.

[23] N. R. Schwass, S. E. Potter, T. S. O'Connell, and T. G. Potter, "Outdoor journeys as a catalyst for enhanced place connectedness and environmental stewardship," *Journal of Outdoor and Environmental Education*, vol. 24, no. 2, pp. 215–231, Jul. 2021.

[24] M. Alam, "Environmental Education and Non-governmental Organizations," in *The Palgrave Encyclopedia of Urban and Regional Futures*, Springer, 2023, pp. 495–502.

[25] S. Rosenfield and D. Mouzon, "Gender and Mental Health," in *Handbook of the Sociology of Mental Health*, C. S. Aneshensel, J. C. Phelan, and A. Bierman, Eds. Dordrecht: Springer Netherlands, 2013, pp. 277–296.

[26] M. Alam, "Environmental activists' hysteresis as a driving force for establishing environmental actions against urban forest privatization in Bandung, Indonesia," *Int. Sociol.*, vol. 36, no. 6, pp. 801–818, 2021.

[27] K. Nova, "AI-Enabled Water Management Systems: An Analysis of System Components and Interdependencies for Water Conservation," *ERST*, vol. 7, no. 1, pp. 105–124, Jun. 2023.

[28] M. O. Rodrigues, N. Abrantes, F. J. M. Gonçalves, H. Nogueira, J. C. Marques, and A. M. M. Gonçalves, "Spatial and temporal distribution of microplastics in water and sediments of a freshwater system (Antuã River, Portugal)," *Sci. Total Environ.*, vol. 633, pp. 1549–1559, Aug. 2018.

[29] M. Alam, "Activists' heterodoxic beliefs in fostering urban environmental education in Indonesia," *Local Development & Society*, vol. 4, no. 1, pp. 128–145, 2023.

[30] C. L. M. Keyes and S. J. Lopez, "Toward a science of mental health," *Oxford handbook of positive psychology*, 2009.

[31] J. I. Escobar and W. A. Vega, "Mental health and immigration's AAAs: where are we and where do we go from here?," *J. Nerv. Ment. Dis.*, 2000.

[32] M. Alam, "Reading the Novel Sarongge Through the Eyes of Female Environmental Activists in Indonesia," in *Environment, Media, and Popular Culture in Southeast Asia*, Springer, 2022, pp. 47–60.

[33] R. E. Redding, M. Y. Floyd, and G. L. Hawk, "What judges and lawyers think about the testimony of mental health experts: a survey of the courts and bar," *Behav. Sci. Law*, vol. 19, no. 4, pp. 583–594, 2001.

[34] E. P. Cherniack and A. R. Cherniack, "The benefit of pets and animal-assisted therapy to the health of older individuals," *Curr. Gerontol. Geriatr. Res.*, vol. 2014, p. 623203, Nov. 2014.

[35] S. Kurt and J. Atanda, "The effects of green spaces and parks on people in Nicosia-Cyprus," *Am. J. Islam. Soc. Sci.*, 2014.

[36] A. N. Afiah, A. A. Widianto, B. Yuanda, E. Sulistywati, M. N. Fatanti, and M. Alam, "Resilience of Local Communities Experiencing Disaster in Lombok," 2022, pp. 78–89.

[37] M. Jabbar, M. M. Yusoff, and A. Shafie, "Assessing the role of urban green spaces for human well-being: A systematic review," *GeoJournal*, 2021.

[38] M. Alam, *Freshmen orientaton program: Circle of violence, moral crisis, and pseudo-altruism*. Nas Media Pustaka, 2023.

[39] A. Samus, C. Freeman, Y. Van Heezik, and K. Krumme, "How do urban green spaces increase well-being? The role of perceived wildness and nature connectedness," *Psychology*, 2022.

[40] M. Mylrea and S. N. G. Gourisetti, "Cybersecurity and Optimization in Smart 'Autonomous' Buildings," in *Autonomy and Artificial Intelligence: A Threat or Savior?*, W. F. Lawless, R. Mittu, D. Sofge, and S. Russell, Eds. Cham: Springer International Publishing, 2017, pp. 263–294.

[41] J. S. Johnson-Pynn and L. R. Johnson, "Exploring Environmental Education for East African Youth: Do Program Contexts Matter?," *cye*, vol. 20, no. 1, pp. 123–151, 2010.

[42] I. C. Ranteallo *et al.*, "Rice landrace conservation practice through collective memory and Toraja foodways," *Society*, vol. 8, no. 2, pp. 794–817, 2020.

[43] D. W. Shuman, "The role of mental health experts in custody decisions: Science, psychological tests, and clinical judgment," *Fam. LQ*, 2002.

[44] A. K. Putra, S. Rizal, M. Alam, L. Sustika, I. A. S. Huda, and B. Yembuu, "VOLCANO TOURISM IN VOLCANIC RISK AREAS: EXPLORATION OF THE HIGHER EXPERIENCE IN MOUNT SEMERU–INDONESIA," *Geo Journal of Tourism and Geosites*, vol. 46, no. 1, pp. 99–107, 2023.

[45] R. Rogers and C. N. Mitchell, "Mental health experts and the criminal courts: A handbook for lawyers and clinicians," vol. 406, 1991.

[46] L. Alam, A. Lahmi, M. Alam, and A. Aminah, "The rise of the urban piety movement: Jamaah Maiyah as an urban spiritualism and emerging religiosity in the public sphere," *Jurnal Ilmiah Peuradeun*, vol. 10, no. 3, pp. 745–762, 2022.

[47] E. H. Connors *et al.*, "Implementation strategies to promote measurement-based care in schools: evidence from mental health experts across the USA," *Implement Sci Commun*, vol. 3, no. 1, p. 67, Jun. 2022.

[48] N. Clearinghouse for Mental Health Information, "Career Opportunities for Professionals at the National Institute of Mental Health," 1970.

[49] I. C. Ranteallo *et al.*, "Performing Toraja rice ritual, communicating biodiversity on YouTube: A study of conservation on rice landrace," *ETNOSIA: Jurnal Etnografi Indonesia*, vol. 6, no. 2, pp. 143–169, 2021.