



Study of the Influence of Urbanization on the Psychological Comfort of Urban Residents: Literature Review on Cities with High Urbanization

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Abstract

Rapid urbanization in big cities in Indonesia has a complex impact on the psychological well-being of residents. This study is a literature review that analyzes various factors of urbanization such as traffic congestion, environmental noise, limited green open space, and population density that contribute to increased stress, anxiety, and other mental health disorders. In addition to the direct impact on individuals, urbanization also affects the social structure of society which is increasingly individualistic and has reduced social support. The findings show that urbanization not only has physical and economic impacts, but also psychological ones. Therefore, a holistic city policy is needed with a multidimensional approach, including the development of green space, sustainable transportation, noise control, and strengthening community-based mental health services to improve the psychological well-being of urban communities.

INTRODUCTION

Urbanization in Indonesia is defined as the process of population movement from rural to urban areas that causes significant changes in demographic, social, and economic structures. This process not only affects the physical form of the city, but also has a direct impact on the social and psychological lives of its citizens. The United Nations and the Central Bureau of Statistics (BPS) recognize urbanization as an important factor that greatly influences urban planning and national development strategies, especially in the context of rapid urban growth and the complexity of the challenges that accompany it (Statistics, 2024; Madlener & Sunak, 2011; Jiboye, 2011; Farrell, 2017; Patel & Raval, 2024).

Urbanization is a global phenomenon that continues to increase. In this context, Saavedra et al. (2024) said that by 2050, almost 70% of the world's population is expected to live in urban areas, a sharp increase from more than 55% in previous years. This projection indicates that large cities will continue to be centers of population concentration, putting pressure on the environment, public services, and psychological aspects of the population

Indonesia is experiencing the same trend. Based on BPS data in 2024, the population of Indonesia in the middle of the year is estimated to reach 281.68 million people,

with an urban population percentage of 57.6%. Jakarta has the largest population, namely 10.68 million people, followed by other large cities such as Surabaya, Medan, and Makassar. The five main cities that show high rates of urbanization are Jakarta, Makassar, Medan, Balikpapan, and Samarinda, which in recent decades have experienced a surge in population and drastic transformation of urban land (Sarker, et al., 2024; Statistics, STATISTIK INDONESIA 2024, 2024). Urbanization growth is triggered by various economic and social factors. Qodhari & Khudhori (2024) said that increasing job prospects in urban areas significantly encourage population movement from villages to cities, as people pursue better livelihoods. In addition, they also said that economic growth and higher minimum wages in cities are the main attractions of urbanization. The accessibility aspect is also an important trigger. Hanafi et al. (2024) said that the proximity of an area to the main road network and big cities encourages changes in land cover. In addition, Sasongko et al. (2024) said that housing development in suburban areas causes the area to adopt urban characteristics, blurring the boundaries between villages and cities.

Although urbanization brings economic benefits, psychologically this phenomenon also poses serious challenges (James, 2024; Idowu, 2013; Bai et al., 2017). One of them is the decline in psychological comfort due to the pressure of the urban environment. (Liu, 2024) said that high congestion increases travel time, which in turn can trigger stress and anxiety. Ochnik et al. (2024) said that constant exposure to noise can disrupt sleep quality and have an impact on mental health, such as depression and anxiety disorders. Not only that, they also said that minimal access to green space worsens psychological conditions, because the presence of nature has been shown to reduce stress levels and improve mood.

High population density is also a major problem. Liu (2024) said that densely populated environments can trigger feelings of tightness, competition for resources, and decreased social cohesion. As a result, people are more susceptible to emotional stress and social isolation. If left untreated, this condition can worsen the quality of life and reduce the productivity of urban communities.

Urbanization in Indonesian cities such as Jakarta, Makassar, Medan, Balikpapan, and Samarinda is characterized by rapid population growth and significant changes in land use. This phenomenon is evidenced by various studies that highlight the impact of urbanization on environmental conditions and urban infrastructure. Jakarta, as a metropolitan area, has experienced substantial urbanization, which has led to an increase in population density and the Urban Heat Island (UHI) effect, where urban temperatures exceed those of the surrounding rural areas (Mujahid 7 Irawan, 2025; Amalia et al., 2024). Makassar, the city has experienced a 10.94% increase in built-up areas from 2002 to 2017, driven by an influx of residents for education and employment opportunities (Nganro et al., 2024). Medan, urbanization has been significant, with 17 out of 21 sub-districts experiencing population growth of more than 10% from 2012 to 2022, influenced by strategic location and natural resources (Lukitaningsih & Swandhani, 2024).

Urbanization has led to environmental degradation, particularly in Jakarta, where population growth is correlated with declining air and water quality (Putra et al., 2024). The transformation of open areas into built environments in cities such as Makassar shows a shift in land use that affects ecological balance and urban sustainability (Nganro et al., 2024). While urbanization brings economic and development opportunities, it also poses challenges such as environmental degradation and public health, which require effective urban planning and management strategies to mitigate adverse effects.

METHODS

Research Design

This study was conducted using a library research approach, which emphasizes the systematic collection, analysis, and interpretation of secondary data from existing literature. The library research method allows the researcher to explore, examine, and synthesize relevant information without the need for direct fieldwork. This approach is particularly suitable for studies that aim to build a comprehensive understanding of a topic based on existing knowledge, theories, and empirical findings (Danandjaja, 2014; Khatibah, 2011; Lenaini & Artikel, 2021). By relying on documented sources, the study ensures that the analysis is grounded in verified evidence while allowing for critical reflection and interpretation by the researcher.

Data Collection

The primary sources of data for this study were obtained from a wide range of literature, including research journals, academic books, research reports, and scholarly papers. The data collection process involved identifying relevant materials, reading them carefully, and systematically recording the key findings and ideas. Rather than selecting sources randomly, the study employed a purposive approach, focusing on materials that were directly relevant to the research objectives. This approach aligns with the principle articulated by Zhang (2014), which emphasizes the importance of selecting illustrative sources based on population characteristics, prior knowledge, or specific considerations that ensure the relevance and quality of the data.

Sampling Technique

In selecting the literature, purposive sampling and snowball sampling techniques were applied. Purposive sampling allowed the researcher to deliberately choose sources that addressed specific aspects of the research topic, ensuring that the materials were directly pertinent to the study objectives. Snowball sampling was used to identify additional sources cited within the initially selected literature, thereby expanding the scope of the research and incorporating interconnected insights. This combination of techniques enabled a thorough and focused exploration of the topic, while maintaining rigor in the selection of relevant materials.

Data Analysis

The analysis of the collected data involved a systematic evaluation and synthesis of the information obtained from the literature. The researcher critically examined each source, identifying key themes, patterns, and insights that contributed to a deeper understanding of the research focus. Findings were illustrated and interpreted to highlight relationships, implications, and theoretical contributions, rather than merely summarizing the content. This analytical process allowed the study to construct coherent arguments, integrate diverse perspectives, and generate conclusions that are grounded in established knowledge and informed reflection.

Rationale and Strengths

The use of library research in this study offers several advantages. It enables access to a broad range of scholarly materials, supports the development of theoretical and conceptual frameworks, and allows for critical engagement with existing research. By combining purposive and snowball sampling techniques, the study ensures that the sources are both relevant and comprehensive, addressing potential gaps in the literature. Moreover, the reliance on secondary data minimizes resource constraints while providing a solid foundation for the researcher's analysis, interpretation, and argumentation.

RESULTS AND DISCUSSION

Urbanization is a population movement from rural to urban areas. Indonesia is one of the countries with a rapid and high rate of urbanization. This rapid population

growth can create many major challenges, especially in large cities such as Jakarta (with 136,200 new arrivals in 2023) which continue to experience an increase in population and infrastructure pressure. This massive population movement to urban areas is triggered by many promising factors such as better job opportunities, access to quality education, a more modern and dynamic lifestyle. Big cities are considered and viewed as a place to realize hopes and dreams. Urbanization is a demographic phenomenon that can trigger various psychological impacts for urban residents. The process of adapting to a constantly changing environment often increases the burden of stress and anxiety triggered by various factors such as population density, economic pressure, and congestion. High urbanization often increases the risk of mental disorders such as depression, anxiety, and sleep quality disorders due to stress. Urban culture also emphasizes materialism and consumerism which are ideas where happiness is proportional to material possessions. This can be a trigger for social pressure that causes frustration and social comparison and can even trigger an identity crisis that makes someone feel disconnected from culture and tradition.

Impact of Urbanization on Psychological Comfort

Rapid and often unplanned urbanization presents profound psychological challenges for urban residents, particularly in megacities such as Jakarta where the pace of growth often outstrips planning capacity. One of the most pressing stressors is chronic traffic congestion, which imposes not only long travel times but also a pervasive sense of uncertainty regarding arrival and departure. These conditions elevate stress hormone levels, foster frustration, and erode tolerance to external stimuli. The cumulative nature of such daily stressors is particularly concerning; repeated exposure has been linked to higher rates of anxiety, depression, and burnout among urban populations. Importantly, the psychological burden of congestion extends beyond individual commuters to affect collective social behavior, as irritability and diminished patience contribute to more frequent interpersonal conflict in public spaces. Alongside congestion, environmental noise emerges as another pervasive psychological stressor.

Often overlooked as a sensory pollutant, noise generated by vehicles, construction sites, and commercial activity permeates daily life in dense cities (Hemmat et al., 2023). Research consistently links chronic noise exposure not only to impaired cognitive performance and sleep disturbance but also to elevated risks of hypertension and cardiovascular strain, thereby intensifying the connection between psychological distress and physical health deterioration. The erosion of psychological comfort in such noisy environments is subtle yet cumulative, undermining residents' resilience over time.

A further dimension of urban stress stems from the limited availability of green open space (RTH), which is consistently sacrificed in favor of vertical and horizontal development (Nababan & Ambarini, 2025). The absence of sufficient natural environments deprives residents of restorative experiences that have been empirically shown to reduce cortisol levels, regulate mood, and enhance opportunities for social interaction. The contrast between the calming effects of green spaces and the overstimulation of crowded built environments is stark, making the scarcity of RTH not only an aesthetic concern but a determinant of mental well-being. In neighborhoods characterized by overcrowding and slum conditions, the psychological toll is magnified by additional factors such as poor sanitation, inadequate infrastructure, and heightened exposure to crime. These conditions collectively foster feelings of insecurity, loss of privacy, and diminished self-control, all of which exacerbate vulnerability to chronic stress and depression. The density of urban living also intensifies sensory overload, as constant exposure to people, noise, and activity limits personal space and contributes to social friction.

While density can foster economic vibrancy and cultural exchange, in unregulated and poorly managed contexts it more often generates psychosocial strain, interpersonal conflict, and reduced subjective well-being. Critically, the interplay among these stressors creates a feedback loop that compounds psychological vulnerability: the frustrations of traffic congestion can be amplified by noisy environments, while the lack of green spaces deprives residents of protective buffers that might otherwise mitigate these effects. This underscores the importance of viewing urban stress not as the sum of isolated factors but as an interconnected system in which deficiencies in planning, infrastructure, and environmental management converge to erode psychological resilience. Addressing these issues requires integrated urban design that prioritizes livability as much as economic growth, with deliberate efforts to expand access to restorative green spaces, reduce noise pollution through stricter regulation, and improve transport systems to lessen unpredictability and congestion. Without such holistic interventions, rapid urbanization risks perpetuating an urban environment where psychological distress is normalized, and where the long-term sustainability of urban life is compromised.

Implications of Urbanization on Mental Well-being

Urbanization that extends beyond physical expansion and demographic change serves as a fundamental catalyst for shifts in population mental well-being, particularly in rapidly developing contexts such as Indonesia. Mass migration from rural to urban areas, often driven by expectations of economic opportunity, social mobility, and access to modern infrastructure, inevitably entails profound psychosocial adaptation challenges. As Prismawan (2023) note in their study on the impact of urbanization on mental health in Indonesian cities, urban growth has not only reshaped social and economic structures but also exacerbated environmental pressures, collectively contributing to the rising prevalence of depression, anxiety disorders, and post-traumatic stress among urban populations. The dense concentration of people in limited urban space often creates overexposure to stressors such as noise, pollution, and congestion, while poor housing conditions, sanitation issues, and spatial inequality further undermine psychological resilience.

Socioeconomic disparities embedded within urban life aggravate these vulnerabilities, as marginalized groups face chronic insecurity in employment, housing, and health care access, which heightens their exposure to persistent stress and mental strain. For many newcomers, the transition to city life is marked by a dissonance between expectations of prosperity and the lived reality of intense competition, anonymity, and accelerated routines. Such discrepancies generate acculturation stress, loneliness, and a heightened sense of alienation, especially for those without strong social networks. Economic pressures, including precarious employment and rising living costs, also translate into chronic financial stress, which has been shown to trigger anxiety and emotional exhaustion. Compounding these pressures are shifts in urban social structures, which, unlike rural communities characterized by close kinship and collective support, are more individualistic and fragmented. This erosion of communal ties reduces the availability of protective social support, leaving individuals more vulnerable to psychological distress.

Critically, these factors rarely operate in isolation; instead, they form an interconnected web where overcrowding intensifies economic competition, environmental stress amplifies feelings of alienation, and weakened social networks limit coping mechanisms. Over time, this accumulation of stress contributes not only to higher prevalence of mental health disorders but also to a gradual erosion of collective well-being, manifesting in rising interpersonal conflict, reduced social trust, and strained public health systems. The rapid pace of urbanization therefore places immense pressure on both social and health infrastructures, which are often underprepared to address complex mental health needs. Indonesia's major cities,

including Jakarta, Medan, and Surabaya, exemplify this challenge, where the influx of rural migrants continues to outpace the development of adequate mental health services and community support programs. Without deliberate interventions, the imbalance between urban growth and psychosocial adaptation risks normalizing mental distress as a structural feature of city life. A more sustainable approach requires integrating mental health considerations into urban planning, such as expanding accessible community health centers, enhancing green and recreational spaces, and promoting inclusive policies that reduce socioeconomic inequality.

Beyond policy interventions, fostering social cohesion through community-building initiatives and strengthening support networks will be essential to mitigate the psychological toll of urbanization. Ultimately, urban growth in Indonesia highlights a critical paradox: while cities promise opportunity and progress, without attention to mental health and social resilience, they may simultaneously generate environments that compromise the very well-being of the populations they aim to uplift.

Policy Recommendations

The urgency of integrating mental health perspectives into urban planning and management is becoming increasingly clear. City governments and policymakers need to adopt a multidimensional approach that focuses on mitigating the negative impacts of urbanization on psychological well-being. Recommended strategies include: a) Investment in Green and Blue Infrastructure: Increasing land allocation for accessible green open space and effective management of urban water resources can contribute to improved psychological well-being. Findings from Sander et al. (2025) specifically suggest that the presence of urban street trees can be correlated with lower rates of antidepressant prescriptions, highlighting the importance of natural visual details; b) Development of Sustainable Transportation Systems: Redesigning efficient, comfortable, and integrated public transportation systems can reduce congestion and stress; c) Noise Regulation and Acoustic Spatial Planning: Implementing strict noise control policies and considering acoustic aspects in spatial planning can create quieter and better quality environments; d) Inclusive Settlement Planning: Developing affordable housing policies, providing adequate basic facilities throughout the city, and participatory revitalization of slums can improve residents' sense of security and privacy; e) Strengthening Mental Health Services: In line with the recommendations of Prismawan (2023), who identified the low availability of mental health professionals as a major challenge in Indonesia, the integration of mental health services into primary health facilities and the development of community-based psychosocial support programs can be an integral part of strategies to improve access to and address mental health issues in urban areas.

CONCLUSION

Rapid urbanization, when unmanaged, exerts profound pressure on the psychological well-being of city residents by intensifying stressors such as traffic congestion, persistent noise, limited access to green space, and high population density. These conditions do not merely reduce comfort; they heighten the risk of chronic stress, anxiety, and other mental health disorders by exposing individuals to continuous overstimulation and uncertainty. Congestion, for instance, erodes personal time and fosters frustration, while environmental noise undermines cognitive functioning and sleep quality, both of which are essential for emotional stability. Similarly, the loss of green space deprives urban communities of restorative environments that buffer stress and enhance social interaction, while overcrowding diminishes privacy, increases the likelihood of conflict, and weakens feelings of safety. Together, these factors create an urban environment that can erode resilience and normalize psychological distress as part of everyday life. Addressing such

complex challenges requires more than fragmented interventions; it calls for holistic city policies that integrate environmental planning, infrastructure design, and health strategies. Expanding and protecting green spaces, investing in sustainable and predictable transportation systems, and providing accessible community-based mental health services are not isolated solutions but complementary measures that collectively enhance livability. In this sense, safeguarding psychological well-being in rapidly urbanizing contexts depends on reimagining urban development not solely as a process of economic growth and spatial expansion but as a deliberate effort to balance material progress with human resilience and social sustainability.

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