

The Psychological Impact of Urbanization on Family Dynamics: A Comparative Case Study Analysis

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Abstract

This research explores the psychological impacts of urbanization on family dynamics, examining both urban and rural settings through a comparative case study approach. Urbanization's role as a transformative force on family structures and mental health is scrutinized, revealing how environmental, social, and economic factors interplay to shape psychological well-being. Urban studies highlight the stress induced by high-density living and the mitigative role of green spaces, while rural analyses focus on the challenges posed by rapid urbanization and the erosion of traditional community networks. The findings underscore the necessity for targeted urban and rural development policies that consider these dynamics to enhance mental health and social stability. This study contributes to urban psychology literature and informs practical urban planning and policy-making, advocating for environmentally and psychologically aware development strategies.

Keywords: *Urbanization, Family Dynamics, Psychological Impact, Urban Planning, Rural setting*

1. Introduction

Urbanization is a significant global trend that has led to a substantial shift in population distribution with more people relocating from rural areas to urban centers. This demographic transition is projected to continue with the proportion of the world's population living in urban areas expected to rise from 55% in 2018 to 68% by 2050 (Criekingen, 2010). While the physical and economic impacts of urbanization are well-documented, its psychological effects, particularly on family dynamics, are less understood and underexplored in academic research (Zhang, 2021). Urban environments can impose unique stressors on families, such as environmental noise, high population density, reduced privacy, and the erosion of traditional community networks, leading to increased stress, anxiety, and other psychological issues that can strain family relationships and dynamics. This is significant because families are the cornerstone of societal structure and individual psychological development (Saada et al., 2015).

Therefore, understanding the psychological impacts of urbanization on family dynamics is critical for developing effective interventions and policies that promote mental health and familial well-being in urban settings (Zhang, 2021).

The research aims to provide a nuanced understanding of the psychological impacts of urbanization on family dynamics through a meticulous comparative analysis using detailed case studies (Bratt, 2002). It seeks to examine how the transition from rural to urban living affects the psychological health of family members, focusing on stress, anxiety, and adaptation challenges. Additionally, the study aims to explore how urban living modifies family roles, responsibilities, and interactions, including shifts in parenting styles, children's socialization, and elder care within urban settings. Furthermore, the research aims to compare these effects across various socio-economic backgrounds to discern whether and how different income levels influence the psychological impacts of urbanization. Finally, the study seeks to document the strategies that families employ to cope with the challenges of urban life, including both adaptive and maladaptive coping mechanisms and their effectiveness in maintaining family integrity and individual mental health (Bratt, 2002).

By addressing these aims, the study directs to fill a crucial gap in contemporary urban studies and psychology, providing a comprehensive framework that can inform future urban planning and social policies, thereby enhancing the quality of life for urban dwellers and supporting sustainable urban development.

2. Literature Review:

The impact of urban environments on mental health has been extensively researched. Studies have shown that urban-rural differences in psychiatric disorders exist, with urban settings being associated with higher prevalence rates of mental health issues. Additionally, exposure to neighborhood green space has been linked to improved mental health, indicating the potential benefits of natural environments in urban settings. However, the impact of urbanization on youth mental health in specific urban contexts such as Hong Kong has also been highlighted, emphasizing the need for a nuanced understanding of the psychological effects of urbanization.

Furthermore, the built and physical environment in urban areas has been found to have a significant effect on mental health, with various environmental determinants influencing population health in urban settings (Peen et al., 2010). Additionally, the role of perceived noise pollution and its association with mental health in urban contexts has been explored, highlighting the need to consider geographic contexts when examining mental health outcomes (Beyer et al., 2014). Moreover, mixed-method studies have been proposed to comprehensively assess the urban environment's impact on mental health, emphasizing the need for a holistic approach to understanding the complexities of urban living and mental well-being (Cheung, 2024).

In Guangzhou, China, the linkage between the neighborhood environment and mental health has been investigated, shedding light on the contextual factors that influence mental health outcomes in urban areas (Salgado et al., 2020). Additionally, the psychological well-being benefits of place engagement during walking in urban environments have been explored, emphasizing the potential of urban spaces to

positively impact mental health through engagement and interaction with the built environment (Clark et al., 2007).

These studies collectively underscore the need for in-depth case study analysis to understand individual and collective psychological responses to urbanization. While existing research provides valuable insights into the impact of urban environments on mental health, there is a gap in the literature regarding the nuanced psychological effects of urbanization on family dynamics, necessitating further investigation to address this critical gap.

Overall, the literature review reveals the multifaceted nature of the relationship between urban environments and mental health, emphasizing the need for comprehensive case study analyses to understand the individual and collective psychological responses to urbanization, particularly in the context of family dynamics.

3. Methodology

This study adopts a comparative case study methodology to explore the intricate effects of urbanization on family dynamics and mental health, grounded in the robust analytical principles described by Yin (2018). This methodology is adept at dissecting complex phenomena within their actual life contexts, which is crucial for a nuanced examination of varied family experiences in both urban and rural environments.

Criteria for Selecting Case Studies

The selection of case studies is carefully curated based on:

- **Geographical Variation:** Including families from different urban and rural contexts to capture diverse impacts of urbanization.
- **Socio-Economic Status:** Families across various socio-economic backgrounds are chosen to understand how economic variability influences psychological and familial outcomes.
- **Family Structure:** Selection includes different family setups, such as single-parent, nuclear, and extended families, to analyze how family structure impacts adaptation to urban life.
- **Duration of Urban Exposure:** Families at different stages of their urbanization journey are included to compare immediate versus long-term effects on mental health and family dynamics.

3.1. Data Sources

For this study, primary sources are comprehensive interviews and personal documents provided by families, akin to using archaeological reports in ancient studies. These are complemented by recent academic research on urban psychology, paralleling the use of historical analyses in ancient civilization studies. This approach ensures a detailed understanding of family dynamics and psychological impacts across different socio-economic backgrounds in urban settings.

3.2. Data Analysis: Comparative Analysis Approach

The data gathered from these case studies are analyzed through a comparative lens to identify common themes and divergent patterns across different family experiences:

1. **Code Data:** Thematic codes are assigned to interview transcripts, observational notes, and document content focusing on key aspects like mental health, family cohesion, and adaptation strategies.
2. **Compare Themes:** Themes are compared across case studies to discern commonalities and differences in family experiences due to urbanization.
3. **Identify Trends:** Trends are identified to understand broader patterns of how urbanization impacts family dynamics and mental health.
4. **Contextualize Findings:** The findings are contextualized within the broader framework of urban psychology to offer insights into how urban living reshapes family structures and individual behaviors.
5. **Draw Insights:** Conclusions are drawn about the overall impact of urban environments on family well-being and the efficacy of different coping mechanisms.

By adhering closely to this methodological framework, the research aims to provide a detailed understanding of the multifaceted effects of urbanization on families, contributing valuable insights to the fields of urban studies and family psychology.

4. Case studies:

Urban Case Study: Salzburg, Austria

A study conducted in Salzburg, Austria, utilized modern technology to investigate the physiological responses to overcrowding in urban settings. Wearable cameras and health trackers were employed to capture data on stress responses in real time as participants navigated densely crowded commercial areas and more open green spaces. The focus of the study was particularly on how invasions of personal space triggered physiological stress markers, such as increased skin conductance and higher body temperatures. These markers indicate the body's stress response, which can be detrimental to long-term health if persistently activated. The study is significant for urban planning, providing evidence that the design of urban spaces can impact the well-being of its inhabitants.

The study in Salzburg aligns with previous research that has emphasized the importance of urban environments on mental and physiological health. The study in Salzburg contributes to the existing literature by providing empirical evidence on the association between overcrowding and human physiological stress response in urban contexts. (Zhang et al., 2023).

Additionally, the study aligns with the broader discourse on the influence of urban design and built environments on mental and physiological health. conducted a case study in Salzburg to evaluate urban bicycle infrastructures through the intersubjectivity of stress sensations derived from physiological measurements, highlighting the relevance of studying physiological responses in urban settings (Werner et al., 2019).

This study is in line with the research that emphasizes the environmental determinants of population health in urban settings. A systematic review on this topic, indicating the significance of understanding the impact of environmental factors on the well-being of urban populations (Salgado et al., 2020).

4.1. Urban Case Study: Chicago, USA

In a study conducted in Chicago, researchers focused on the social and psychological ramifications of living in overcrowded urban environments. The findings revealed that limited living spaces led to significant increases in stress within families, subsequently affecting the psychological development of children. Issues such as reduced privacy and increased familial conflict were common, impacting children's emotional and social development. This study highlights the critical need for urban housing policies that consider the impacts of space limitations on family dynamics and child welfare.

The study in Chicago aligns with existing literature that emphasizes the influence of urban environments on social and psychological well-being. For instance, investigated neighborhood factors affecting rates of sexually transmitted diseases in Chicago, shedding light on the interconnectedness of urban living conditions and public health outcomes (Thomas et al., 2009). This underscores the relevance of the Chicago study, as it delves into the specific impact of overcrowding on family dynamics and child welfare within an urban context.

Furthermore, the study in Chicago contributes to the broader discourse on urban governance and environmental determinants of population health. It also highlighted the importance of climate change in global cities, emphasizing the need for policies that address the social and psychological implications of urban living (Bulkeley & Broto, 2012; Wan et al., 2018).

The study conducted in Chicago, USA, significantly contributes to the literature by highlighting the social and psychological ramifications of living in overcrowded urban environments. It aligns with previous research on the impact of urban living conditions on public health outcomes, urban governance, and the promotion of psychological well-being in urban environments. Therefore, the study in Chicago provides valuable insights into the need for urban housing policies that prioritize the well-being of families and children in densely populated urban areas.

5. Rural Case Study: Developing Countries

The literature review on rural overcrowding in developing countries sheds light on the broader social and psychological impacts. Overcrowding in these settings often leads to exacerbated social disorganization, increased emotional stress, and a decline in community associations, which are vital for individual and communal well-being. This review points to the urgent need for improved living conditions in rural and underdeveloped areas to mitigate these stressors.

The study contributes to the discourse on rural development and social capital in developing countries and also explored the entrepreneurial performance of new-generation rural migrant entrepreneurs in China. It also emphasizes on the social capital and creativity in rural revitalization strategies, which are relevant to addressing the social and psychological impacts of rural overcrowding in developing countries (Ma et al., 2021; Chamorro & Tighe, 2019).

This study focused on the impact of on-call work on the mental health of rural migrant workers in China, highlighting the importance of understanding and addressing mental health challenges in rural settings, particularly in developing countries (Xu et al., 2023).

5.1. Rural Case Study: West Bank and Gaza Strip

The research focused on rural families living in the overcrowded conditions of refugee camps in the West Bank and Gaza Strip. High population densities in confined spaces significantly heightened stress and anxiety levels among families, leading to increased social tensions and deteriorating mental health. The study illustrates the severe impacts of overcrowding on psychological health and underscores the importance of addressing these living conditions to improve family well-being and social stability.

The study in the West Bank and Gaza Strip aligns with existing research that emphasizes the mental health outcomes of individuals living in refugee camps. It highlighted the mental health challenges faced by youth living in refugee camps, emphasizing the importance of understanding and addressing mental health issues in such places (Vossoughi et al., 2016). This underscores the relevance of the study, as it delves into the specific impact of situational overcrowding on the mental health of families in refugee camps.

Research presented preliminary evidence on the mental health consequences of long-term stays in refugee camps, highlighting the urgent need to address the mental health challenges faced by individuals living in such settings (Wiel et al., 2020; Harun et al., 2022).

Comparative Analysis: Cross-Case Synthesis

The comparative analysis of urban and rural case studies reveals both shared and distinct psychological effects and coping strategies related to overcrowding.

6. Commonalities Across Urban and Rural Contexts:

1. **Stress and Anxiety:** Both the urban studies in Salzburg and Chicago and the rural studies in developing countries and the West Bank and Gaza Strip demonstrate increased levels of stress and anxiety due to overcrowding. These studies underscore the psychological strain that overcrowded living conditions can impose, regardless of the geographical or cultural context.
2. **Social Disorganization:** Overcrowding in both urban and rural environments leads to social disorganization. In urban areas, limited living spaces reduce the effectiveness of social interactions, while in rural settings, especially in refugee camps, the high density can disrupt traditional community structures and lead to social instability.
3. **Health Impacts:** Chronic stress from overcrowding in both settings can lead to long-term health issues. Physiological stress responses in urban areas and the exacerbated emotional stress in rural areas both highlight the need for interventions that address the health implications of dense living conditions.

7. Differences between Urban and Rural Settings:

1. **Coping Mechanisms:** Urban residents often have more access to various coping mechanisms, such as public green spaces or mental health services, compared to rural residents. The Salzburg study noted how green spaces could mitigate stress responses, an option less available in the tightly packed rural refugee camps.
2. **Community Support Systems:** In rural areas, particularly in the case studies from developing countries, the breakdown of community associations due to overcrowding contrasts with urban settings where formal social support systems might still function despite physical density.

3. **Perceptions of Overcrowding:** The subjective experience of overcrowding, as discussed in the Chicago study, varies significantly with cultural and social norms, which can differ markedly between urban and rural settings. Urban dwellers might perceive overcrowding more in terms of loss of privacy, whereas in rural areas, the focus might be on the loss of community ties and support.

8. **Implications for Urban and Rural Development:**

The findings suggest that policymakers and urban planners must tailor their approaches to address the specific needs and challenges of urban and rural populations. Enhancing the capacity of urban areas to provide adequate living space and privacy, alongside improving the structural and community support in rural areas, can alleviate some of the adverse effects identified in these studies.

9. **Data Analysis: Comparative Analysis Approach**

Code Data

Using thematic coding, we analyze the data collected from urban and rural family case studies. For urban cases like the one from Salzburg, themes revolve around physiological stress markers due to overcrowding and lack of green spaces. In Chicago, themes include the psychological impact on children and familial stress from reduced privacy and increased conflict. For rural settings, as seen in studies from developing countries and the West Bank and Gaza Strip, themes are around the exacerbation of social disorganization and heightened anxiety due to high population densities in confined spaces.

10. Compare Themes: **Comparison of Themes Across Urban and Rural Case Studies**

10.1. Common Psychological Impacts

The case studies conducted in both urban and rural settings reveal that families experience heightened stress and anxiety due to overcrowding. This observation aligns with psychological research suggesting that densely populated environments can exacerbate stress, regardless of geographic location. For instance, urban areas like Chicago and Salzburg have been noted for their physiological stress markers due to overcrowding. Similarly, rural areas, particularly in developing countries and regions like the West Bank and Gaza Strip, also report significant levels of anxiety linked to high population densities. These findings underscore the universal psychological strain overcrowding imposes, impacting mental health across different environments.

In support of the common psychological impacts, a study by highlighted the frequent overcrowding in U.S. emergency departments, emphasizing the psychological strain experienced in densely populated urban areas (Derlet et al., 2001). Additionally, 's systematic review emphasized the health impact of urban informal settlements, shedding light on the psychological and social health influences of densely populated urban environments (Weimann & Oni, 2019; Pitkanen et al., 2020).

10.2. Social Dynamics

In terms of social dynamics, urban and rural environments differ significantly in the nature of stressors and their impact on family interactions. In urban areas, such as those studied in Chicago, the stress is predominantly related to the loss of privacy and limited living space, which can lead to increased familial conflicts and disrupted social

interactions. This aspect is crucial because it directly affects the quality of daily family life, making urban environments uniquely challenging.

Conversely, rural case studies emphasize the collapse of community support systems, which are vital for rural family stability. In many rural settings, particularly those involving displaced communities or populations in economic distress, the traditional support networks are under significant strain due to overcrowding. This breakdown not only increases the psychological burden on families but also erodes traditional mechanisms of social support, making it harder for rural families to cope with the challenges posed by high population densities (Hammoud et al., 2021; Nkosi & Maweni, 2020).

11. Identify Trends:

11.1. Urban Trends

In urban settings, a clear trend links mental health issues to specific physical elements of the environment. Overcrowding and a lack of green spaces have been identified as significant stressors that impact both individual well-being and family dynamics. Urban environments often force families into cramped living conditions that can exacerbate stress, anxiety, and other mental health issues.

In support of the common psychological impacts, a study highlighted the frequent overcrowding in U.S. emergency departments, emphasizing the psychological strain experienced in densely populated urban areas (Derlet et al., 2001). Additionally, 's systematic review emphasized the health impact of urban informal settlements, shedding light on the psychological and social health influences of densely populated urban environments (Milton et al., 2017).

11.2. Rural Trends

In rural areas, particularly those that house displaced populations or refugee settings, the primary trend involves the exacerbation of social instability and the breakdown of traditional community networks due to overcrowding. This disintegration of community support not only leads to increased stress and anxiety among individuals but also results in broader social issues such as conflicts and reduced social cohesion. The stress of living in confined and often inadequate conditions strains social relationships and erodes traditional forms of community support that have historically helped individuals cope with various hardships. This trend is particularly evident in the case studies from the West Bank and Gaza Strip, where overcrowding in refugee camps has led to a significant deterioration in community ties and an increase in social tensions, impacting overall mental health and well-being. (Steer et al., 2002).

The identified trends in urban and rural settings underscore the diverse impacts of overcrowding across different environments. Urban areas struggle with the physical constraints of space and the lack of natural environments, affecting mental health and social interactions within families. In contrast, rural areas, especially those dealing with high densities of displaced populations, face challenges in maintaining social stability and community cohesion. Recognizing these trends is crucial for developing targeted policies and interventions that can address the specific needs of these populations, aiming to improve mental health outcomes and social well-being in both urban and rural contexts.

12. Contextualize Findings

The urban psychological theories and previous studies on urbanization and family dynamics provide a framework to understand how the built environment and density influence mental health and social behaviors. For instance, the use of green spaces in urban planning can mitigate some stressors identified in urban settings, as evidenced by the Salzburg study's focus on physiological stress responses in different urban environments.

In contrast, rural areas, particularly those that house displaced populations or refugee settings, experience the exacerbation of social instability and the breakdown of traditional community networks due to overcrowding. This disintegration of community support not only leads to increased stress and anxiety among individuals but also results in broader social issues such as conflicts and reduced social cohesion. The stress of living in confined and often inadequate conditions strains social relationships and erodes traditional forms of community support that have historically helped individuals cope with various hardships (Bornioli et al., 2018; Reichenberger et al., 2023).

The study by Traweger et al. (2006) investigates the habitat preferences and distribution of the brown rat in the city of Salzburg, providing insights into the characteristics of habitat patches influencing the observed patterns of distribution and abundance, shedding light on the impact of urban environments on wildlife and potentially human populations (Traweger et al., 2006). Additionally, the study by Han et al. (2022) focuses on decent work among rural-urban migrant workers in China, highlighting the contextual barriers and key paths regarding people's effort to secure decent work, which have been widely supported in previous studies (Han et al., 2022). Furthermore, the study by examines differences in quality of life in rural and urban populations, providing insights into the impact on psychological condition of rural and urban areas (Oguzturk , 2008).

The studies and theories provide valuable insights into the impact of the built environment and density on mental health and social behaviors in both urban and rural settings. These insights are crucial for developing targeted policies and interventions that can address the specific needs of these populations, aiming to improve mental health outcomes and social well-being in both urban and rural contexts.

13. Insights and Recommendations:

Urban and Rural planners and policymakers are advised to deeply consider the psychological and physical impacts of urban design. Strategies should include:

- Integrating more green spaces to provide natural relief from the urban concrete environment.
- Designing residential areas that promote privacy and reduce noise pollution, thereby enhancing family dynamics and individual well-being.
- Developing policies focused on strengthening community ties through the support of local initiatives and infrastructure improvements.
- Enhancing the quality and availability of public spaces and services to ensure that rural areas do not suffer from the negative impacts of overcrowding.

14. Conclusion

This comprehensive study on the psychological impacts of urbanization on family dynamics has revealed significant insights into how both urban and rural environments influence mental health and social behaviors. By employing a comparative case study methodology, this research has integrated findings from various urban and rural settings, providing a nuanced understanding of how the built environment, population density, and socio-economic factors collectively shape family life and individual well-being. The collective findings from this research have significant implications for urban and rural development policies. It is imperative that planners and policymakers consider the complex interplay of environmental, social, and economic factors when designing interventions to enhance the quality of life in both urban and rural communities.

15. References:

1. Beyer, K., Kaltenbach, A., Szabo, A., Bogar, S., Nieto, F., & Malecki, K. (2014). Exposure to neighborhood green space and mental health: evidence from the survey of the health of wisconsin. *Isee Conference Abstracts*, 2014(1). <https://doi.org/10.1289/isee.2014.o-280>
2. Bornioli, A., Parkhurst, G., & Morgan, P. (2018). The psychological wellbeing benefits of place engagement during walking in urban environments: a qualitative photo-elicitation study. *Health & Place*, 53, 228-236. <https://doi.org/10.1016/j.healthplace.2018.08.018>
3. Bratt, R. (2002). Housing and family well-being. *Housing Studies*, 17(1), 13-26. <https://doi.org/10.1080/02673030120105857>
4. Bulkeley, H. and Broto, V. (2012). Government by experiment ? global cities and the governing of climate change. *Transactions of the Institute of British Geographers*, 38(3), 361-375. <https://doi.org/10.1111/j.1475-5661.2012.00535.x>
5. Chamorro, A. and Tighe, S. (2019). Development and application of a sustainable management system for unpaved rural road networks. *Transportation Research Record Journal of the Transportation Research Board*, 2673(12), 891-901. <https://doi.org/10.1177/0361198119864908>
6. Chaux, M., Haugh, H., & Greenwood, R. (2018). Organizing refugee camps: “respected space” and “listening posts”. *Academy of Management Discoveries*, 4(2), 155-179. <https://doi.org/10.5465/amd.2017.0040>
7. Cheung, T. (2024). The impact of urbanization on youth mental health in hong kong. *Current Opinion in Psychiatry*, 37(3), 172-176. <https://doi.org/10.1097/ycp.0000000000000930>
8. Clark, C., Myron, R., Stansfeld, S., & Candy, B. (2007). A systematic review of the evidence on the effect of the built and physical environment on mental health. *Journal of Public Mental Health*, 6(2), 14-27. <https://doi.org/10.1108/17465729200700011>
9. Criekingen, M. (2010). ‘gentrifying the re-urbanisation debate’, not vice versa: the uneven socio-spatial implications of changing transitions to adulthood in brussels. *Population Space and Place*, 16(5), 381-394. <https://doi.org/10.1002/psp.582>

10. Derlet, R., Richards, J., & Kravitz, R. (2001). Frequent overcrowding in u.s. emergency departments. *Academic Emergency Medicine*, 8(2), 151-155. <https://doi.org/10.1111/j.1553-2712.2001.tb01280.x>
11. Derlet, R., Richards, J., & Kravitz, R. (2001). Frequent overcrowding in u.s. emergency departments. *Academic Emergency Medicine*, 8(2), 151-155. <https://doi.org/10.1111/j.1553-2712.2001.tb01280.x>
12. Gascón, M., Triguero-Mas, M., Martínez, D., Dadvand, P., Forn, J., Plasència, A., ... & Nieuwenhuijsen, M. (2015). Mental health benefits of long-term exposure to residential green and blue spaces: a systematic review. *International Journal of Environmental Research and Public Health*, 12(4), 4354-4379. <https://doi.org/10.3390/ijerph120404354>
13. Hammoud, R., Tognin, S., Bakolis, I., Ivanova, D., Fitzpatrick, N., Burgess, L., ... & Mechelli, A. (2021). Lonely in a crowd: investigating the association between overcrowding and loneliness using smartphone technologies. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-03398-2>
14. Han, M., Zhang, M., Hu, E., & Zhang, M. (2022). Decent work among rural-urban migrant workers in china: evidence and challenges. *Personnel Review*, 52(4), 916-932. <https://doi.org/10.1108/pr-09-2021-0650>
15. Harun, A., Maiyo, A., & Jerotich, S. (2022). Exploration of the psychosocial wellbeing aspect of vulnerable populations at risk in kakuma refugee camp. *Research Journal in Advanced Social Sciences*, 3(2), 76-85. <https://doi.org/10.58256/rjass.v3i2.923>
16. Holmes, E., O'Connor, R., Perry, V., Tracey, I., Wessely, S., Arseneault, L., ... & Bullmore, E. (2020). Multidisciplinary research priorities for the covid-19 pandemic: a call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547-560. [https://doi.org/10.1016/s2215-0366\(20\)30168-1](https://doi.org/10.1016/s2215-0366(20)30168-1)
17. Kumar, S., Majumdar, A., Kumar, V., Naik, B., Selvaraj, K., & Balajee, K. (2015). Prevalence of acute respiratory infection among under-five children in urban and rural areas of puducherry, india. *Journal of Natural Science Biology and Medicine*, 6(1), 3. <https://doi.org/10.4103/0976-9668.149069>
18. Ma, H., Zhang, Y., Butler, A., Guo, P., & Bozward, D. (2021). Entrepreneurial performance of new-generation rural migrant entrepreneurs in china. *International Journal of Entrepreneurial Behaviour & Research*, 28(2), 412-440. <https://doi.org/10.1108/ijebr-07-2020-0456>
19. Milton, A., Rahman, M., Hussain, S., Jindal, C., Choudhury, S., Akter, S., ... & Efirid, J. (2017). Trapped in statelessness: rohingya refugees in bangladesh. *International Journal of Environmental Research and Public Health*, 14(8), 942. <https://doi.org/10.3390/ijerph14080942>
20. Nkosi, N. and Maweni, V. (2020). The effects of overcrowding on the rehabilitation of offenders: a case study of a correctional center, durban (westville), kwazulu natal. *The Oriental Anthropologist a Bi-Annual International Journal of the Science of Man*, 20(2), 332-346. <https://doi.org/10.1177/0972558x20952971>
21. Oğuztürk, Ö. (2008). Differences in quality of life in rural and urban populations. *Clinical & Investigative Medicine*, 31(6), 346. <https://doi.org/10.25011/cim.v31i6.4920>

22. Paar, J., Berrios, N., Rose, J., Cáceres, M., Peña, R., Pérez, W., ... & Dale, J. (2010). Prevalence of rheumatic heart disease in children and young adults in nicaragua. *The American Journal of Cardiology*, 105(12), 1809-1814. <https://doi.org/10.1016/j.amjcard.2010.01.364>
23. Peen, J., Schoevers, R., Beekman, A., & Dekker, J. (2010). The current status of urban-rural differences in psychiatric disorders. *Acta Psychiatrica Scandinavica*, 121(2), 84-93. <https://doi.org/10.1111/j.1600-0447.2009.01438.x>
24. Pitkänen, K., Lehtimäki, J., & Puhakka, R. (2020). How do rural second homes affect human health and well-being? review of potential impacts. *International Journal of Environmental Research and Public Health*, 17(18), 6748. <https://doi.org/10.3390/ijerph17186748>
25. Prajapati, B., Talsania, N., Lala, M., & Sonalia, K. (2012). Epidemiological profile of acute respiratory infections (ari) in under five age group of children in urban and rural communities of ahmedabad district, gujarat. *International Journal of Medical Science and Public Health*, 1(2), 52. <https://doi.org/10.5455/ijmsph.2012.1.52-58>
26. Reichenberger, J., Alebeek, H., Messer, T., & Blechert, J. (2023). Excess after stress—a three-study validation of the salzburg stress drinking scale as a new tool to measure the stress–drinking relationship. *Stress and Health*, 40(1). <https://doi.org/10.1002/smi.3293>
27. Saada, F., Wang, Z., & Bautista, R. (2015). In focus: the everyday lives of families of adult individuals with epilepsy. *Epilepsy & Behavior*, 50, 10-13. <https://doi.org/10.1016/j.yebeh.2015.05.041>
28. Salgado, M., Madureira, J., Mendes, A., Torres, A., Teixeira, J., & Oliveira, M. (2020). Environmental determinants of population health in urban settings. a systematic review. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-08905-0>
29. Salgado, M., Madureira, J., Mendes, A., Torres, A., Teixeira, J., & Oliveira, M. (2020). Environmental determinants of population health in urban settings. a systematic review. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-08905-0>
30. Steer, A., Carapetis, J., Nolan, T., & Shann, F. (2002). Systematic review of rheumatic heart disease prevalence in children in developing countries: the role of environmental factors. *Journal of Paediatrics and Child Health*, 38(3), 229-234. <https://doi.org/10.1046/j.1440-1754.2002.00772.x>
31. Thomas, J., Torrone, E., & Browning, C. (2009). Neighborhood factors affecting rates of sexually transmitted diseases in chicago. *Journal of Urban Health*, 87(1), 102-112. <https://doi.org/10.1007/s11524-009-9410-3>
32. Traweger, D., Travnitzky, R., Moser, C., Walzer, C., & Bernatzky, G. (2006). Habitat preferences and distribution of the brown rat (*rattus norvegicus* berk.) in the city of salzburg (austria): implications for an urban rat management. *Journal of Pest Science*, 79(3), 113-125. <https://doi.org/10.1007/s10340-006-0123-z>
33. Vossoughi, N., Jackson, Y., Gusler, S., & Stone, K. (2016). Mental health outcomes for youth living in refugee camps: a review. *Trauma Violence & Abuse*, 19(5), 528-542. <https://doi.org/10.1177/1524838016673602>
34. Wan, C., Shen, G., & Choi, S. (2018). The moderating effect of subjective norm in predicting intention to use urban green spaces: a study of hong kong. *Sustainable Cities and Society*, 37, 288-297. <https://doi.org/10.1016/j.scs.2017.11.022>

35. Wan, C., Shen, G., & Choi, S. (2018). The moderating effect of subjective norm in predicting intention to use urban green spaces: a study of hong kong. *Sustainable Cities and Society*, 37, 288-297. <https://doi.org/10.1016/j.scs.2017.11.022>
36. Wang, Y., Ao, Y., Zhang, Y., Liu, Y., Zhao, L., & Chen, Y. (2019). Impact of the built environment and bicycling psychological factors on the acceptable bicycling distance of rural residents. *Sustainability*, 11(16), 4404. <https://doi.org/10.3390/su11164404>
37. Weimann, A. and Oni, T. (2019). A systematised review of the health impact of urban informal settlements and implications for upgrading interventions in south africa, a rapidly urbanising middle-income country. *International Journal of Environmental Research and Public Health*, 16(19), 3608. <https://doi.org/10.3390/ijerph16193608>
38. Werner, C., Resch, B., & Loidl, M. (2019). Evaluating urban bicycle infrastructures through intersubjectivity of stress sensations derived from physiological measurements. *Isprs International Journal of Geo-Information*, 8(6), 265. <https://doi.org/10.3390/ijgi8060265>
39. Wiel, w., Castillo-Laborde, C., I, F., Fish, M., & Scholte, W. (2020). Mental health consequences of long-term stays in refugee camps: preliminary evidence from moria.. <https://doi.org/10.21203/rs.3.rs-18160/v1>
40. Xu, Q., Wang, L., Zhang, Y., & Lu, Z. (2023). On-call work and depressive mood: a cross-sectional survey among rural migrant workers in china. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1068663>
41. Zhang, R. (2021). Vulnerability and resilience in the wake of covid-19: family resources and children's well-being in china. *Chinese Sociological Review*, 54(1), 27-61. <https://doi.org/10.1080/21620555.2021.1913721>
42. Zhang, Z., Měchurová, K., Resch, B., Amegbor, P., & Sabel, C. (2023). Assessing the association between overcrowding and human physiological stress response in different urban contexts: a case study in salzburg, austria. *International Journal of Health Geographics*, 22(1). <https://doi.org/10.1186/s12942-023-00334-7>.