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Opinion Piece

Community Hubs as Essential Infrastructure in Proximity-Based Urban Design: Addressing Structural Barriers to Mental Health

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Abstract: Proximity-based models, such as the 15-minute city and microcities, aim to improve population health by increasing access to services, reducing travel burdens, and supporting walkability. Prior research has proposed community hubs as a means of addressing social determinants of health within neighborhoods. Evidence suggests that walkability, accessible green space, and social infrastructure are associated with greater subjective well-being, social cohesion, and perceived belonging. Community hubs promote informal support and improve connections to health and social services. However, spatial proximity does not always translate into equitable access when barriers such as fragmented services, administrative burden, stigma, and cultural mismatches persist. Existing research also reflects a bias toward affluent communities, despite urban stressors disproportionately affecting low-income neighborhoods. Integrating community hubs into proximity-based frameworks may strengthen mental health equity by centralizing resources, reducing navigational barriers, and improving access to services. Current proximity-based models risk reproducing inequalities unless integrated with equity-capable social infrastructure.

Implications: Proximity-based urban design can overlook persistent structural barriers that limit access to services. Integrating community hubs into the microcity framework can improve coordination of health and social resources, thereby strengthening support for low-income and marginalized communities disproportionately affected by urban stressors. Prioritising resource centralization and low-stigma access points can help translate spatial proximity into equitable mental health support.

Keywords: Social Infrastructure; Psychosocial Resources; Socioeconomic Disadvantage; Accessibility Gaps; Spatial inequality; Community Hubs

1. Introduction

Current proximity-based urban models, such as the 15-minute city, micro-cities, and variations of chrono-urbanism, seek to improve population health by organizing daily needs within short walking or cycling distances. Chrono-urbanism orients distance around time rather than physical distance. This focus allows for the availability of daily needs within manageable temporal thresholds. Rather than solely focusing on mobility, chrono-urbanist design promotes synchronized land-use, transportation, and the vital social infrastructure to support daily life (e.g., food, education, recreation, healthcare, social interaction) (Moreno et al., 2021). These models provide approaches that prioritize access to daily needs within short travel times. Microcities, for example, are neighborhood-scale, self-contained mixed-use areas where residents can meet most routine needs locally (e.g., within ~15-20 minutes).

Prior evidence suggests that such design features are associated with improved subjective well-being, partly through increased physical activity, social interaction, and reduced transportation stress (Núñez-González et al., 2020; Moreno et al., 2021). In

parallel, community hubs co-locate multi-purpose, neighborhood-level facilities that integrate social, health, cultural, and educational services to address social and structural determinants of health and wellness by promoting access to necessary support systems (McShane & Coffer, 2022). Systematic evidence suggests that this communal infrastructure can strengthen social cohesion, widen networks, and increase perceived support (Bagnall et al., 2019). In practice, however, equitably centralizing and distributing resources across sprawling urban contexts of any size remains a persistent logistical challenge. Embedding centralized resource hubs within communities may therefore help address inequitable disparities in urban design, allowing community partners and organizations to mobilize resources more easily and efficiently.

However, contemporary reviews highlight limits to proximity-based models. Implemented at the neighborhood scale, microcities cluster housing, services, public space, and transportation networks into compact urban units. Implementation of the microcity can reduce transportation burdens, support active mobility, and foster stronger neighborhood social networks. Despite the strengths that these proximity models hold, contemporary reviews have provided insight into potential setbacks. Equitable access cannot solely be solved through proximity alone due to inequitable differences in infrastructure quality, service diversity, and socioeconomic conditions influencing amenity access (Guzman et al., 2024). These concerns require deliberate governance and equity safeguards. Otherwise, the microcity may reproduce uneven service distribution or contribute to displacement pressures already impacting disadvantaged neighborhoods (Mahmoudpout & Shirazi, 2026). The critiques posed on the microcity underscore the importance of coupling proximity-based design with coordinated, equitable social infrastructure.

Although proximity-based planning and community hubs have each been independently linked to improvements in subjective well-being, social cohesion, and perceived belonging, their combined implications for mental health equity remain underexamined. Understanding the implications of these combined approaches can help address existing gaps in the literature and improve the equitable design of cities by promoting collaboration and resource centralization. While proximity-based planning addresses many physical barriers to accessibility, the community hub plays a distinct role in addressing structural barriers such as fragmented services, administrative burden, cultural mismatches, stigma, and socioeconomic inequities that shape mental and social health outcomes in urban communities.

This perspective synthesizes existing evidence on urban form, social infrastructure, and mental health to clarify where evidence is strong, where structural barriers persist, and where addressing these barriers is essential for equitable urban design for mental health. The importance of social infrastructure can address inequities in large and mid-sized metropolitan contexts in countries where service fragmentation, displacement pressures, and institutional complexity shape mental health inequities. While proximity-based models are applicable across urban scales, the structural barriers discussed here are most pronounced in dense metropolitan regions characterized by housing precarity, transportation burdens, and uneven distribution of social infrastructure. Adaptation to smaller municipalities and rapidly urbanizing low- and middle-income settings would require contextual adjustment.

2. Urban Form, Social Infrastructure, and Mental Health

Proximity-based models have gained prominence as emerging evidence links features of urban form, such as walkability, green space, street connectivity, and accessible public spaces, to determinants of mental health. Walkability is understood as safe, connected pedestrian infrastructure with access to daily destinations within short travel times. The feature of walkability has been linked to improved subjective well-being, mediated by increased physical activity, social interactions, and reduced transportation burdens (Núñez-González et al., 2020; Moore et al., 2018). Exposure to green and blue spaces has been associated with lower stress and greater psychological restoration across age groups, with meta-analytic evidence supporting broader health benefits(Twohig-Bennett & Jones,

2018; Houlden et al., 2018). Social infrastructure, such as libraries and community centers, has played a vital role in mental health and social well-being. Libraries and community centers have been associated with improved social cohesion, perceived belonging, and everyday social interaction, all of which influence well-being (Zanhow, 2024; Bagnall et al., 2019). Proximity-based operationalize these features by clustering housing, services, public space, and amenities within short travel distances that increase routine access to daily needs. By reducing travel times and improving accessibility, design can support healthier behaviors and reduce stress on mental and physical health, thereby fostering healthier communities. Exposure to high-walkability urban forms, such as that of the micro-city, has been linked to improved emotional responses and self-reported calmness amongst adolescents (Buttazzoni et al., 2022), and similarly, proximity to quality green spaces has been associated with improved mental well-being amongst adults, with effect sizes varying by socio-demographic factors (Houlden et al., 2018; Belcher et al., 2024).

These considerations arise within broader trends of rapid urban growth, rising mental health burdens, and widening health inequalities in metropolitan regions. Urban stressors, such as pollution, crowding, displacement, and fragmented service systems, have been linked to cumulative psychosocial risk and adverse mental health outcomes (Clark & Paunovic, 2018; Evans & Kim, 2010; Cacciatore et al., 2025). Despite rapid urban growth, the capacity of proximity-based models to address mental health inequities across diverse socioeconomic and marginalized contexts remains underexamined. Communities facing limited access to green spaces, fragmented services, environmental stressors such as noise and pollution, and cumulative socioeconomic risk may not equitably benefit from proximity-based planning alone (Clark & Paunovic, 2018; Evans & Kim, 2010). Critiques of urban green space and public space investments that prioritize affluent, whiter neighborhoods raise concerns about green gentrification, which may displace long-standing low-income residents and undermine intended equity gains (Wolch, Byrne, & Newell, 2014; Cacciatore et al., 2025). Whilst these environments face concerns amid gentrification, they also face concerns about the quality of parks and communal spaces. Access to green space is an environmental justice issue, as communities of color often have less access to safe, well-maintained parks and open spaces despite facing greater health burdens (Wolch et al., 2014). This barrier to raising concerns about gentrification risks placing individuals at risk of relocation, whilst efforts are underway to address ongoing urban stress among disproportionately impacted populations.

Community spaces and hubs have emerged as a strategy to address a broad array of social determinants of health disproportionately impacting underserved communities, such as social isolation, service fragmentation, and limited access to culturally responsive care. Community hubs are multi-purpose, neighbourhood-embedded spaces that co-locate health, social, cultural, educational, and recreational services in a single accessible setting. By co-locating services, hubs aim to improve cross-sector integration and reduce navigational barriers to services that arise from fragmented institutional systems (McShane & Coffey, 2022). Community hubs have shown improvements in social participation, the widening of local networks, and better perceptions of social support (Bagnall et al., 2019). These characteristics are associated with improved mental health outcomes, particularly in communities facing socioeconomic hardships. Importantly, hubs also help limit stigma in accessing support systems, reducing the psychological and administrative burden of navigating multiple institutions or organizations for necessary care and intervention.

Proximity-based models reduce physical barriers but do not inherently dismantle the structural barriers that influence mental health outcomes in urban spaces. While proximity and transportation costs are addressed in these settings, the fragmented and complex service systems remain unchanged. Low-income residents, newcomers, and individuals experiencing mental health vulnerability still face difficulty connecting to care despite the geographical proximity of services. A recent review (Omiyefa, 2025) highlights multiple overlapping barriers, even in urban settings where providers may be available but resources remain fragmented. Persistent gaps in insurance coverage, workforce shortages, transportation challenges, language barriers, and a lack of culturally competent services all limit effective access to care. Community Care Hubs, as designed by the U.S. Department of Health and Human Services, serve as a backbone for centralizing fragmented service systems to address the complexity of navigation and the barriers to utilization that are often present, particularly in low-income neighborhoods (Breslau, 2023).

Mental health services delivered exclusively by clinics or formal health care settings may inadvertently reinforce stigma, discouraging engagement amongst certain populations. In qualitative research examining ethnic minority adults in the U.K., participants described feeling deprioritized and encountering limited culturally or religiously responsive care (Stepanova et al., 2025). These findings underscore the need for broader community-based support, rather than traditional formal services, both during and after the COVID-19 pandemic. Collaboration between mental health services and ethnic minority communities would serve to redesign services that are culturally grounded and community-based. In the context of micro-cities, this becomes a prominent concern, as designers seek to address equitable gaps and utilization barriers. Concerns about stigma, particularly cultural and communal sensitivities, are vital to promoting service use within a community. Utilizing community hubs can provide access to broader resources and serve as low-stigma communal spaces to develop cultural and community-informed approaches to informal care and services.

In addition to stigmatization and cultural barriers, there are socioeconomic and structural barriers. Mental health stigmatization also plays a role in services that are not tailored to the culture and language of the communities that they serve, further threatening to alienate communities (Stepanova et al., 2025). Beyond the barriers of cost and access to quality spaces, there is a structural barrier caused by navigational challenges within systems. Due to administrative hurdles individuals face when seeking health and support services, community members struggle to access these services. Administrative hurdles in public benefits (E.g., SNAP, Medicaid) directly harm mental well-being through stress and indirectly harm health by keeping eligible families from accessing necessary support (PolicyLab, 2024). Co-designed community hubs, driven by community feedback and engagement, can counter these mismatches and promote more equitable design for use in proximity-based models. By addressing persistent navigational challenges, hubs for services can better centralize resources. Rather than navigating a maze of systems that create administrative and structural barriers and buffers, a single location improves access.

3. Implications for Equitable design

Inequities in urban mental health arise not only from transportation burdens and uneven access to public amenities but also from structural barriers such as service fragmentation, administrative capacity, cultural mismatch, and displacement pressures. While proximity-based planning addresses many of the spatial barriers, it doesn't always ensure equitable access to mental health resources. Without explicit attention to affordability, displacement risk, and equitable infrastructure investment, proximity-based models may unintentionally contribute to gentrification and compound existing structural inequalities. Community hubs are not a comprehensive solution; they provide a structural mechanism to address persistent gaps in coordination, accessibility, and trust. By co-locating services, community hubs can reduce navigational barriers, foster social cohesion, and support sustained relationships between residents, local organizations, and service providers. When co-designed with community members, hubs can strengthen local governance capacity and guide equitable infrastructure investment. In this way, hubs would translate spatial proximity to meaningful, accessible, navigable, and culturally responsive support, thereby reducing the likelihood that centralized services remain inaccessible to marginalized populations.

Urban planners, public health departments, community health providers, social service agencies, and nonprofit organizations can leverage hubs as shared access points for coordinated, low-stigma service delivery. Centralizing resources within neighborhood-based hubs would make it easier for community members to navigate and access resources that would otherwise be underutilized. Effective implementation requires attention to spatial layout and the development of trust within communities to develop better, more robust social infrastructure. Although the combined potential of microcities and community hubs remains underexamined in the literature, existing evidence suggests that each plays a critical role in promoting equitable access. By embedding community-driven support systems within proximity-based planning frameworks, cities can better serve populations exposed to urban stressors and improve public health.

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