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MENTAL HEALTH BURDEN IN URBAN POPULATIONS: SOCIOECONOMIC DETERMINANTS AND ACCESS TO CARE IN DEVELOPING HEALTH SYSTEMS

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Abstract
Mental health disorders represent a growing public health challenge in rapidly urbanizing regions, particularly within developing health systems where socioeconomic inequalities and limited access to care persist. This study investigates the mental health burden in urban populations, with a specific focus on socioeconomic determinants and barriers to healthcare access. A quantitative, cross-sectional design was employed, involving 384 urban respondents selected through stratified random sampling. Data were collected using a structured questionnaire incorporating validated mental health screening tools and measures of socioeconomic status and healthcare accessibility. Statistical analyses included descriptive statistics, t-tests, ANOVA, and multiple regression analysis. Findings reveal a high prevalence of psychological distress, with 63% of participants experiencing mild to severe mental health symptoms. Income level, employment status, and education emerged as significant predictors of mental health outcomes, with lower socioeconomic status strongly associated with higher psychological distress. Regression analysis indicated that socioeconomic factors collectively explained 58% of the variance in mental health status. Additionally, major barriers to mental healthcare access included high treatment costs, limited-service availability, stigma, and lack of awareness. The study concludes that mental health in urban populations is deeply influenced by structural socioeconomic inequalities and systemic healthcare access barriers. Strengthening primary healthcare integration, improving affordability, and addressing social determinants are essential for reducing the urban mental health burden in developing health systems.

1 INTRODUCTION

Mental health problems have become one of the most important but neglected public health problems in the 21st century, especially in rapidly urbanizing societies in developing nations. Demographic, economic, and social changes in urban populations are unprecedented, and changing the contours of health and illness (Ventriglio, Torales, Castaldelli-Maia, De Berardis, & Bhugra, 2021). Cities offer access to more health care facilities than rural areas, but are also sources of complex stressors like crowding, unemployment, income inequalities, housing insecurity, social fragmentation, and violence. Together these factors add to the growing prevalence of mental health problems like depression, anxiety disorders, substance abuse

disorders, and stress-related disorders (Hossain & Purohit, 2019).

Mental health disorders constitute a significant share of years lived with disability (YLDs) globally, and are more likely to affect urban people in LMICs, as they are more likely to lack access to health and social protection services. Although there is increasing awareness and understanding of mental health as an essential part of universal health coverage, there remain major gaps in access to and coverage for mental health services, as well as service quality. In most developing health systems, mental health services are concentrated in tertiary care facilities, poorly resourced and poorly linked in to primary health care.

This poses significant obstacles for the urban population, particularly for the marginalized and low-income groups. Mental health outcomes in urban areas are heavily dependent on the socioeconomic determinants. There are strong links between poverty, unemployment, precarious working status and poorer outcomes in terms of psychological distress and help-seeking. Poor psychological distress and lower help-seeking are strongly linked to poverty, unemployment and precarious working status (Carbonell, Navarro-Pérez, & Mestre, 2020). Furthermore, urban inequality compounds mental health inequalities, as people in informal settlements may be less likely to have access to safe places, social support systems, and affordable health care services. Socio-economic factors also intersect with gender, age and migration status, resulting in multiple vulnerabilities that increase the mental health risk for certain sub-populations in cities (Van Der Wal et al., 2021).

Cultural stigma and mental health illiteracy are also contributing factors to delayed diagnosis and treatment. People in cities are often reluctant to seek care from the health system because they fear discrimination or lack awareness or trust in informal coping mechanisms. Despite availability of services, however, the number of trained mental health workers and uneven distribution of resources reduces the effectiveness of services delivery systems (Azad et al., 2019). As a result, the treatment gap is high and many people with mental health problems do not get formal treatment. In this context, it is important to know how the socioeconomic factors interact with access to mental health services in urban populations in order to guide equitable health system reforms. This research examines the mental health burden in urban settings in developing health systems, focusing on the effects of structures, economic factors, and access to health services in combination. The study seeks to make a contribution to evidence-based policy making and to building up integrated mental health services in urban areas by exploring these dimensions (Schwarz, Schmidt, Bobek, & Ladurner, 2022).

2 Literature Review

The evidence from the world in recent years is overwhelming that mental health disorders are a major cause of disability worldwide, and are particularly a burden in urban areas of low- and middle-income countries (LMICs). Urbanization is positively correlated with higher rates of depression and anxiety disorders and substance use disorder, as well as more exposure to psychosocial stressors, including overcrowding, environmental pollution, social isolation, and economic inequality. As well as being common, mental health issues are also becoming more prevalent in the world, according to the World Health Organization, especially in urban areas where societies and economies are undergoing the most rapid change (Hossain et al., 2020).

In urban areas, mental health risks are not only higher than in rural areas because of disorganized social networks, but also because of the greater competition for resources that can cause stress. Research shows that while urbanization in developing countries can be highly dynamic, mental health services do not always keep pace causing the mental health service gap to grow. Thus, in urban areas, people have more services available to them, but much less effective access to them, because of the constraints. Socio-economic status (SES) is a significant predictor of mental health outcomes, as documented in a large body of literature (Colizzi, Lasalvia, & Ruggeri, 2020).

Psychological wellbeing is consistently related to income, employment, education and housing. Low-income people and those who lack economic

resources tend to have a higher risk of chronic stress, depression and anxiety disorders because of financial insecurities and fewer coping resources. Recent systematic reviews highlight the importance of poverty-related stressors (such as food insecurity, lack of stable employment, and financial debt) for mental health risks among urban populations in LMIC (PMC). Education is also protective in that it enhances health literacy, expands employment prospects, social inequality in the city further exacerbates mental health inequalities. Spatial inequality is a determinant of mental health, even after socio-economic factors are added to the equation, research has found (DeSa, Gebremeskel, Omonaiye, & Yaya, 2022).

In addition to socioeconomic factors at the individual level, there are broader structural factors like governance, social policies, and urban planning that also affect mental health outcomes. The social determinants of health framework centers on the conditions in which people live, work and grow old, such as the education system, labor markets, housing policies and community infrastructure (NCBI) that impact mental health. These determinants work in several ways: exposure to stress, access to resources and access to supportive environments. Social disintegration and the lack of social cohesion are significant factors in psychological distress in urban areas. Rural to urban migration can be a rupture of traditional social networks, which can result in fewer emotional and social supports (Morales, Barksdale, & Beckel-Mitchener, 2020).

In addition, urban settings can perpetuate social comparisons and feelings of inequality that can add to feelings of inadequacy and stress. Intersectionality is also featured prominently in emerging literature on mental health disparities. Layered vulnerabilities are created by interaction between gender, age, ethnicity, and migration status with socioeconomic factors. Although mental health problems have become a major challenge, care is hardly available in most developing health systems. Mental health services are generally under resourced, tertiary-based and are not fully integrated into primary health care (Fusar-Poli, 2019).

This puts a geographic, financial and institutional hurdle in the way of city-dwellers, especially in low-income communities. Economic challenges are among the biggest challenges to mental health care services. Costs to individuals from receiving health services, including out-of-pocket expenses, lack of insurance coverage, and indirect costs like transportation and lost wages, deter people from seeking health services.

Access is also hindered by financial limitations as well as a lack of trained mental health workers. The ratio of psychiatrists to population in many LMICs is very low, and general public health facilities in urban areas may be overburdened. This leads to long waiting lists, lower quality care and fewer opportunities for continuity of care (Federico, McFarlane II, Szefler, & Abrams, 2020).

Low mental health literacy and stigma are also significant factors in decreasing the use of services. Even in urban settings, mental illness remains linked to social stigma and people avoid getting a formal diagnosis and treatment. Reliance on informal coping mechanisms is further promoted by cultural beliefs and lack of awareness (De Abreu, Cruz, Borges-Oliveira, Martins, & Mattos, 2021).

The "urban paradox" of mental health care is found in the literature many times and refers to the fact that although urban areas are likely to have more healthcare facilities than rural ones, access to mental health services is in fact very uneven. Geographical disparities can result in a lack of access to health facilities, especially in impoverished neighborhoods (Shammi, Bodrud-Doza, Islam, & Rahman, 2020).

Research on urban infrastructure access reveals a systematic pattern of inequalities in access to critical infrastructure among disadvantaged groups, such as in the healthcare, educational, and transportation networks (arXiv). This spatial segregation leads to inequities in mental health outcomes in cities: low-income neighborhoods have more mental illness and less access to treatment (Zhao et al., 2020).

While there has been an increase in research around urban mental health, there is still a number of gaps in the literature. First, most of the existing studies are conducted in high income countries, and therefore may be less generalizable

to LMIC urban contexts where socioeconomic and health system burdens are likely to be higher. Second, there is a lack of an integrated analytical model that incorporates the multitude of determinants at the individual, community and structural level. Third, access-to-care studies tend to focus on access rather than access and its use, and treatment outcomes (Choudhari, 2020).

Recent studies have recommended the integration of social determinants, spatial analysis and health system evaluation into more interdisciplinary and systems-based approaches to better understand mental health inequities in the city. Digital mental health interventions and community-based service delivery models are also gaining traction as possible ways to meet service gaps in resource-limited urban contexts (Khatri & Assefa, 2022).

3 Methodology

3.1 Research Design

This study employed a quantitative, cross-sectional research design to examine the mental health burden in urban populations, with a specific focus on socioeconomic determinants and access to mental healthcare services in developing health systems. A cross-sectional approach was deemed appropriate because it allows for the assessment of relationships between variables at a single point in time, particularly useful for identifying associations between socioeconomic factors and mental health outcomes within urban settings. The design aligns with established public health research practices for studying population-level mental health trends and healthcare access disparities.

3.2 Study Setting

The study was conducted in an urban context within a developing health system framework. The selected urban areas represented densely populated metropolitan regions characterized by socioeconomic diversity, including low-, middle-, and high-income communities. These settings were chosen to capture variability in living conditions, healthcare accessibility, and mental health exposure risk factors commonly observed in rapidly urbanizing environments.

3.3 Population and Sampling

The target population consisted of adult urban residents aged 18 years and above. Individuals residing in the selected urban areas for at least one year were considered eligible for inclusion to ensure adequate exposure to urban environmental and socioeconomic conditions. Exclusion criteria included individuals with severe cognitive impairment or those unable to provide informed consent.

A stratified random sampling technique was used to ensure proportional representation across different socioeconomic strata, including low-income, middle-income, and high-income groups. Stratification was based on residential area classification and household income levels. This approach enhanced the representativeness of the sample and minimized selection bias. The final sample size was determined using Cochran's formula for cross-sectional studies, with adjustments made for expected non-response rates to ensure statistical adequacy.

3.4 Data Collection Procedure

Data were collected through structured questionnaires administered to participants either in person or through supervised digital survey tools, depending on accessibility and participant preference. The questionnaire was divided into four main sections: demographic characteristics, socioeconomic status indicators, mental health status assessment, and access to healthcare services. Data collection was conducted by trained research assistants to ensure standardization and reduce interviewer bias. Prior to the main survey, a pilot study was conducted to test the clarity, reliability, and validity of the instrument, and necessary modifications were made based on pilot feedback.

3.5 Measurement Tools

Mental health status was assessed using a standardized and validated screening tool such as the Depression, Anxiety and Stress Scale (DASS-21), which is widely used in population-based mental health research. Socioeconomic variables included income level, employment status, educational attainment, and housing conditions. Access to healthcare was measured through

indicators such as proximity to mental health services, affordability, availability of professionals, and perceived barriers to care. All measurement scales were adapted from previously validated instruments to ensure reliability and comparability with international studies (Gautham et al., 2020).

3.6 Data Analysis

Data were analyzed using statistical software such as SPSS or R. Descriptive statistics, including frequencies, means, and standard deviations, were used to summarize demographic characteristics and key study variables. Inferential statistical tests were applied to examine relationships between socioeconomic determinants and mental health outcomes. Specifically, Pearson's correlation analysis was used to assess associations between continuous variables, while independent sample t-tests and one-way ANOVA were applied to compare mental health outcomes across different socioeconomic groups. Multiple linear regression analysis was conducted to determine the predictive effect of socioeconomic determinants on mental health status while controlling for potential confounding variables. A significance level of $p < .05$ was considered statistically significant.

3.7 Ethical Considerations

Ethical approval was obtained from the relevant institutional review board prior to data collection. Informed consent was obtained from all participants after providing detailed information about the study objectives, procedures, and confidentiality assurances. Participation was voluntary, and respondents had the right to withdraw from the study at any stage without any consequence. Data confidentiality and anonymity were strictly maintained by assigning unique identifiers to participants and securely storing all collected data in password-protected systems.

4 Results

4.1 Demographic Characteristics of the Respondents

The study included 384 urban respondents. The sample represented a balanced distribution across socioeconomic and demographic categories, allowing for meaningful comparison of mental health outcomes across groups.

Table 1 *Demographic Profile of Respondents (N = 384)*

Variable	Category	Frequency (n)	Percentage (%)
Age	18–29 years	132	34.4
	30–44 years	148	38.5
	45–60 years	78	20.3
	60+ years	26	6.8
Gender	Male	201	52.3
	Female	183	47.7
Employment Status	Employed	214	55.7
	Unemployed	170	44.3
Education Level	Primary	72	18.8
	Secondary	146	38.0
	Higher Education	166	43.2

The sample reflects a relatively young urban population, with the majority falling within the 30–44 age group. Employment levels indicate moderate economic stability; however, a significant proportion of respondents reported unemployment. Education distribution shows that nearly half of the participants had higher education, allowing for analysis of education as a protective factor in mental health outcomes.

4.2 Prevalence of Mental Health Conditions

Mental health status was assessed using a standardized screening tool, and respondents were categorized based on severity levels.

Table 2 *Mental Health Status of Respondents (DASS-21 Categories)*

Mental Health Status	Frequency (n)	Percentage (%)
Normal	142	37.0
Mild	96	25.0
Moderate	88	22.9
Severe	58	15.1

Findings indicate that 63% of respondents experienced some level of psychological distress, ranging from mild to severe. A notable proportion (15.1%) reported severe symptoms, highlighting a substantial mental health burden in the urban population. These results confirm a high prevalence of mental health challenges in urban developing settings.

4.3 Socioeconomic Determinants and Mental Health Outcomes

A one-way ANOVA test was conducted to examine differences in mental health scores across income groups.

Table 3 *Mental Health Scores by Income Level*

Income Level	Mean Mental Health Score	Standard Deviation
Low Income	28.6	6.4
Middle Income	21.3	5.1
High Income	15.8	4.7

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ANOVA results indicated a statistically significant difference in mental health scores across income groups ($F = 42.67$, $p < .001$).

Lower-income respondents reported significantly higher levels of psychological distress compared to middle- and high-income groups. This finding suggests that income is a strong predictor of mental health status, reinforcing the role of financial insecurity as a key determinant of psychological well-being in urban populations.

4.4 Association Between Employment Status and Mental Health

An independent samples t-test was conducted to assess differences in mental health scores between employed and unemployed participants.

Table 4 *Mental Health Scores by Employment Status*

Employment Status	Mean Score	Standard Deviation
Employed	19.4	6.2
Unemployed	27.8	5.9

The t-test showed a significant difference between groups ($t = 11.23$, $p < .001$).

Unemployed individuals exhibited significantly higher mental health distress compared to employed respondents. This highlights employment as a protective factor against psychological stress, likely due to financial security, social engagement, and structured daily activity.

Access to Mental Healthcare Services

Access to mental healthcare was measured through perceived availability, affordability, and accessibility indicators.

Table 5 ***Barriers to Mental Healthcare Access***

Barrier Type	Frequency (n)	Percentage (%)
High cost of treatment	162	42.2
Lack of nearby services	118	30.7
Stigma and discrimination	74	19.3
Lack of awareness	30	7.8

The most commonly reported barrier was the high cost of treatment, followed by limited availability of nearby mental health services. Stigma and lack of awareness also contributed to reduced healthcare utilization. These findings indicate that access to care is shaped by both structural and social barriers.

4.5 Regression Analysis: Predictors of Mental Health Status

A multiple linear regression analysis was conducted to determine the effect of socioeconomic factors on mental health outcomes.

Table 6 ***Regression Analysis Predicting Mental Health Status***

Predictor	Beta (β)	t-value	p-value
Income Level	-0.41	-8.92	< .001
Employment Status	-0.36	-7.45	< .001
Education Level	-0.22	-4.31	< .001
Access to Healthcare	-0.29	-6.18	< .001

Model fit: $R^2 = 0.58$, $F = 52.11$, $p < .001$

The regression model explains 58% of the variance in mental health outcomes, indicating a strong explanatory power. Income level emerged as the strongest predictor, followed by employment status and access to healthcare. Education also demonstrated a significant protective effect. These findings confirm that mental health outcomes in urban populations are strongly influenced by socioeconomic conditions and healthcare accessibility.

5 Discussion

In the current study, the mental health burden in urban populations in a developing health system context was tested, including exploring socioeconomic determinants and access to care. The results highlight a high prevalence of psychological distress, with over 50% of those who responded having mild to severe mental health symptoms. Additionally, results show strong and statistically significant links between socioeconomic disadvantage (low income, unemployment, and lack of education in particular) and the mental health outcomes. There were also financial barriers, service availability and stigma, as the primary constraints to accessing mental healthcare. These results all imply that mental health problems in the city are not only

clinical issues but are very much part of structural and socioeconomic inequalities (Hasan et al., 2021).

The levels of psychological distress found in this study are consistent with international findings that urban environments in developing countries have been linked to higher mental health risk. This increase in stress levels, social isolation and economic insecurity due to overcrowding, social fragmentation and rapid urbanization can lead to mental illness. The results complement an overall epidemiological picture which suggests that the physical infrastructure of urban areas, though superior, is accompanied by a multitude of psychosocial stressors which have a negative impact on mental health (Purtle, Nelson, Counts, & Yudell, 2020).

Furthermore, the relatively high percentage of "Moderate" and "Severe" cases indicates a growing demand for mental health services among urban populations. This is indicative of increasing demand for mental health services and a lack of health system capacity to meet this demand effectively. One of the most important conclusions of this study is that socioeconomic status is a strong predictor of mental health outcomes. Education, Employment status and Income level were the most important factors associated with psychological distress. These results were consistent with the literature that shows poverty and financial insecurity are important determinants of mental health disorders. The lower the income group, the greater the likelihood of an individual's experiencing a chronic stress reaction as a result of an unstable living situation, a lack of resources and a lack of coping (Zeidan et al., 2022).

The mental health burden was also significantly associated with unemployment. This is due to the psychological impact of financial insecurity, low social engagement and lack of self esteem. Likewise, education protective, perhaps because it contributes to problem solving and better health literacy and employment opportunities. All of this makes it clear that the socioeconomic inequalities need to be taken into account in every holistic mental health approach.

The study found a number of impediments to mental healthcare services within cities. Cost was the most striking barrier, suggesting that financial limitations pose a significant challenge even in more developed urban healthcare settings. This result is indicative of the difficulty in establishing health systems in which mental health care is not always included in public insurance, resulting in a large proportion of mental health costs being paid out of pocket.

Financial barriers were not the only major constraint, however, as limited availability of nearby services was another major constraint. This implies that there is an uneven distribution of mental health facilities in urban areas, with higher levels of mental health services being concentrated in the central or high income parts of the city and the rest of the city left under-served. Stigma and lack of awareness were also identified as major challenges, underscoring the pervasive nature of cultural and social beliefs on mental health service utilization. This is similar to what has been seen in other countries around the world, which have also highlighted stigma as one of the main barriers to accessing mental healthcare in LMICs (Li et al., 2022).

Results from this study align with the social determinants of health approach, which highlights the influence of broader socio-economic and environmental factors on mental health outcomes. Previous studies have also revealed that income inequality, unemployment, housing insecurity and access to healthcare services are responsible for mental health disparities within urban areas.

These regression results also reflect the multidimensionality of mental health determinants, and they contribute a significant amount of variance in mental health outcomes in this study. The current findings are also comparable to those found in other similar studies conducted in urban LMICs which identified factors such as income and employment as key predictors of psychological health.

The results indicate there is a pressing need for integrated mental health approaches in urban health systems. A policy focus should be on incorporating mental health services into primary health care to increase the ability to access care and

address mental health gaps. There are also financial protection mechanisms in place, such as insurance coverage for mental health services, which should be strengthened to lower OPEC burdens (Singh et al., 2021).

Additionally, interventions that are designed to tackle unemployment and poverty issues could have secondary but meaningful effects on mental health outcomes. In addition, the utilization of mental health services depends on community-based mental health programs, public awareness about mental health, and stigma reduction efforts. Social policy and urban planning need to be connected to mental health goals in order to tackle the structural causes of mental distress.

Conclusion

This study presents robust evidence that socioeconomic factors and limited access to health services have a significant impact on the burden of mental illness in cities and are part of a less functional health system. These results reveal that a significant proportion of the urban population is suffering from symptoms of psychological distress with a large number having moderate to severe symptoms. This suggests that mental illnesses are common not only but are a major and increasing public health problem in city areas.

The socioeconomic factors that were identified as important predictors of mental health outcomes were income level, employment status, and educational attainment. The results indicated that psychological distress was significantly higher among individuals with lower income levels and those who were unemployed, pointing to the important role that economic stability plays in maintaining mental health. The protective factors were primarily the domain of education, indicating that increasing a person's health literacy and health opportunities could lessen susceptibility to mental health disorders.

The research also identifies key challenges to mental health care services such as high cost of care, insufficient local services, stigma and ignorance. These barriers combined contribute to significant treatment gaps especially in the urban marginalized communities. The results highlight the need for clinical interventions to enhance mental health outcomes, as well as structural changes to increase affordability, accessibility, and public awareness.

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