

Gender differences in the effects of urban neighborhood on depressive symptoms in Jamaica

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ABSTRACT

Objective. To explore the mental health effects of the urban neighborhood on men and women in Jamaica and the implications for urban planning and social development.

Methods. A cross-sectional household sample of 2 848 individuals 15–74 years of age obtained from the Jamaica Health and Lifestyle Survey 2007–2008 was analyzed. Secondary analysis was undertaken by developing composite scores to describe observed neighborhood features, including infrastructure, amenities/services, physical conditions, community socioeconomic status, and green spaces around the home. Depressive symptoms were assessed using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Bivariate and multivariate methods were used to explore the associations among gender, neighborhood factors, and risk of depressive symptoms.

Results. While no associations were found among rural residents, urban neighborhoods were associated with increased risk of depressive symptoms. Among males, residing in a neighborhood with poor infrastructure increased risk; among females, residing in an informal community/unplanned neighborhood increased risk.

Conclusions. The urban neighborhood contributes to the risk of depression symptomatology in Jamaica, with different environmental stressors affecting men and women. Urban and social planners need to consider the physical environment when developing health interventions in urban settings, particularly in marginalized communities.

Key words Urban health; urban renewal; depression; gender and health; public policy; equity in health; Jamaica.

The relationship between place and health has been documented since the nineteenth century (1). During the last two decades, however, robust statistical

evidence has causally linked the physical environment to infectious diseases and chronic conditions, including mental disorders, and led to a conceptual framework on the contribution of place to health (2). This framework integrates three components: *contextual resources*, that is, a neighborhood's structural features, such as facilities, services, amenities, and neighborhood-level socioeconomic status; *collective resources*, those social processes and interrelationships that exist among community members;

and *compositional resources*, or characteristics that the individual brings to the environment, such as one's individual socioeconomic and health status.

Urbanization and mental health

Depression is projected to become the second leading cause of global disease burden by 2020 (3). Negative consequences of rapid urbanization over the last century have included unplanned growth, poverty, and environmental

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hazards that often combine to produce poor sanitation and public services, pollution, violence, overcrowding, and low social support. These can precipitate health crises, including communicable disease outbreaks and poor mental health (4). Poor urban design (5) has been associated with depression and depressive symptoms and has also been implicated in the creation of dysfunctional spaces and weakened infrastructure (i.e., waste disposal, water supply, and sewage systems), with resulting health inequities. Living in high density, overcrowded conditions, with limited amenities and social services puts urban dwellers at increased risk for poor mental health (6).

Dilapidated neighborhoods often evolve devoid of proper urban planning and are characterized by high levels of poverty, low household income, and low occupational and educational levels. The residents are usually of low socioeconomic status, have limited opportunities, and cannot afford adequate housing. Social capital is often low in dilapidated neighborhoods. There are relatively few social networks or neighborhood associations or supportive social groups, a void that limits positive social interaction and prompts the development of a negative neighborhood reputation (7–8). Moreover, since social capital is important to the transfer of health information and health-related behaviors, residents of these neighborhoods may suffer unduly from this lack of support.

In addition to high levels of social disorder, including crime and violence, run-down neighborhoods are often rife with graffiti, garbage, and broken infrastructure. These factors have negative mental health consequences for residents of these environments. Poverty has been associated with mental illness due to exposure to physical and social stressors that limit the capacity to respond to adverse life events (9). Conversely, green spaces have been found to be protective, providing opportunities for relaxation and the therapeutic value inherent to interaction with nature (10). Green spaces have been shown to increase life expectancy, reduce mental health problems, and improve the quality of life of urban dwellers (10). Given this association, as urbanization increases, access to green spaces has become a key component of spatial planning policy around the globe.

Gender and health

The “gender paradox” in health juxtaposes women’s higher life expectancy with men’s lower morbidity. Although women generally live longer, they are more likely to be affected by health conditions that have lower fatality (e.g., rheumatoid arthritis versus heart disease). One explanatory factor is the better health-seeking behavior of women, i.e., they are more likely to report illnesses and utilize health services than are men. This differential is in part due to differences in social orientation, gender roles, and risk behaviors. For example, women’s social roles often include caring for the family, while the male social environment is often characterized by more frequent exposure to high risk behaviors (e.g., smoking, excessive alcohol consumption, high-stress occupations), with more fatal outcomes, such as violence, accidents, and cardiovascular emergencies (11–12).

Women nonetheless report a higher burden of depression than men, with this difference being accounted for by differential biologic expressions of stress. Gender-based sociocultural experiences, such as adverse childhood events, fewer social opportunities, and controlling male behaviors reduce women’s coping skills and make them more vulnerable to life events (13–14).

Urbanization, gender, and depression

While it is generally accepted that urban dwellers have higher rates of depression, the gender effect is in dispute. A recent study (15) found no contribution of gender, while another (16) articulated a higher burden of depression among urban women in general (11.4% vs. 6.8% among men) and an even greater burden among low-income urban women (11.1% vs. 2.2%). Another study (4) noted that urban women were more often in socioeconomically disadvantaged circumstances with lower social support than were men. The transition from the rural environment to the urban is a stressful experience and that may be felt more by women when adjusting to physically deteriorated environments with new subcultures (e.g., high levels of violence and anti-social behaviors) that are generally more unstable. In these circumstances, women

may be at greater risk of abuse, and consequently, depression.

Urbanization in Jamaica

Latin America and the Caribbean (LAC) is the most urbanized area of the world—the vast majority of the population (80%) resides in the urban environment (17). Jamaica, a middle-income island nation within LAC has experienced rapid urbanization, with the proportion of persons living in urban areas increasing from 39% in 1970 to 54% in 2011 (18–19). Underdeveloped rural infrastructure and limited economic opportunities were the main “push” factors; while the key “pull” factors were the burgeoning service and trade economy in the metropolis and coastal tourism areas, driven by expansions in manufacturing, tourism, and the bauxite industries, which provided significant employment opportunities for women. Urban development was, however, unable to keep pace with this population growth. Informal or “unplanned” communities evolved without adequate housing and essential services, i.e., water supply, sewerage treatment, modern waste disposal services, and reliable, affordable electricity supply. Poor coordination among agencies and a weak regulatory environment resulted in rapid and persistent degradation of infrastructure in many older, urban communities, accelerated by internal migration of the more affluent into better developed areas. Negative social and environmental consequences included spikes in crime, deforestation, and flash flooding (18).

Efforts to address the housing needs of low- and middle-income families included: the National Housing Trust in the 1970s (20), a contributory scheme through which participants could obtain housing at reasonable rates; a formal housing policy, outlined in 1982 (21); and a 2011 draft policy that is awaiting ratification in 2013 (22). With nearly 30 agencies responsible for the housing and infrastructure needs of communities, the processes are poorly coordinated and complicated by a weak regulatory environment. In 2008, when these data were collected, sanitation facilities connected to sewerage systems were available in 92% of households in the urban metropolis, compared to only 72% in towns and 53% in rural areas. Indoor piped water was available in most urban areas (80%),

compared to towns (60%) and rural areas (29%). However, water management problems often led to frequent lock offs (23). The high unmet need (74%) for housing solutions has driven the proliferation of informal communities (i.e., squatter settlements) island wide (24), with a marked 44% increase in the number of households in these areas over the last 10 years (2001–2011) (19).

With chronic diseases (including depression) increasing globally, the need to better understand the role of the environment in shaping mental and other health outcomes has been heightened. Most studies of mental health and urbanization have been conducted in high income countries. This study aims to shift the focus to a middle-income country facing rapid urban growth. By examining the differential effect of the urban environment on the mental health of men and women in Jamaica, this study intends to open a dialogue on how to advance the urban planning agenda to improve both the quality of the built environment and the health of community residents.

MATERIALS AND METHODS

This study utilized secondary data from the Jamaica Health and Lifestyle Survey 2007–2008 (25). This was a nationally representative cross-sectional household sample of 2 848 individuals 15–74 years of age. The *Diagnostic and Statistical Manual of Mental Disorders, 4th edition*, (DSM-IV) was used to define depressive symptomatology as the presence of five or more signs of depression, including suicidal ideations occurring within the 4-week period prior to the survey (26).

The study received ethical approval by the University Hospital of the West Indies/University of the West Indies Ethics Committee.

Data collection

While twice as many women as men agreed to participate in the study, the data were weighted to reflect the age and sex distributions of Jamaica's population in 2008.

Neighborhoods were assessed by observer-ratings adapted from Schootman and colleagues (27), and were evaluated according to examined neighborhood infrastructure, amenities/services, physical conditions, socioeconomic sta-

tus, and green spaces in/around the home (Table 1). Settlement patterns (i.e., planned versus informal) were also documented.

For infrastructure, services, and green spaces, each item was scored 1 if present and 0 if absent, for maximum composite scores of 9, 14, and 3, respectively. Physical conditions were ranked on a scale of 1 (poor)–4 (excellent). Neighborhood

socioeconomic status (SES) was assessed using three measures: a poverty index, education, and major crimes. Each measure was summed into a composite score, which was divided into tertiles (low, medium, and high). Neighborhood scales were also assessed for face validity, and as expected, more affluent urban areas had better scores. Green spaces, however, showed no urban-rural differences.

TABLE 1. Components of neighborhood measures in a study of the effects of urban neighborhood on depressive symptoms, Jamaica, 2007–2008

Neighborhood feature	Characteristics measured	Scoring method	Tertiles
Infrastructure	Paved roads; sidewalks; electricity, telephone lines and piped water to homes; water closet; clean streets; street lighting; recreational areas (playing fields, open spaces)	Absent: 0 Present: 1	Low: 0–6 Moderate: 7–8 High: 9
Services	<i>Social:</i> public transportation; primary/secondary school; university/college; churches; recreational facilities <i>Public services:</i> police station; post office; doctor's office/health center <i>Commerce:</i> Small grocery/shop; supermarket; fresh fruit/vegetable market; fast food restaurant; full service (sit down) restaurant; banking facilities; shopping center	Absent: 0 Present: 1	Low: 0–5 Moderate: 6–9 High: 10–14
Physical conditions	Condition of the houses; noise level; air quality; condition of streets/sidewalks/yards; overall community condition	Scale 1 (poor) to 4 (excellent)	Low (poor–fair) Moderate (good) High (excellent)
Neighborhood level socioeconomic status	Poverty index	Scale Low: 0 Moderate: 1 High: 2	1%–14% 14.2%–23.7% 24.4%–57.1%
	Average educational level of residents (secondary education):	Scale Low: 0 Moderate: 1 High: 2	27.7%–45.9% 46.1%–49.5% 50.0%–66.3%
	Major crimes in area	Scale Low: 0 Moderate: 1 High: 2	0–3 incidents 4–20 incidents 21–95 incidents
Green spaces in the home	Lawn; ornamental plants; trees	Absent: 0 Present: 1	Low: 0–1 Moderate: 2 High: 3
Settlement pattern of the community	Informal/unplanned community (does not meet proper layout and design conditions; not approved by the Local Planning Authority) Formal/planned community (meet proper layout and design conditions; approved by the Local Planning Authority)	Informal/unplanned: 0 Formal/planned: 1	

Data analysis

Data were analyzed with Stata®/MP12 (StataCorp LP, College Station, Texas, United States). Variables with a demonstrated association ($P < 0.05$) with depressive symptoms in bivariate analyses were included in multiple logistic regression models. A test for interaction showed evidence of sex differences in disease burden, so data were disaggregated by sex, and sex-place specific models were developed. Final model selection used Akaike Information Criteria (AIC) (28), a statistical methodology for selecting the model that best fits the data from a group of models explaining a particular relationship. The lowest AIC value identified the preferred model.

Consideration was given to the likelihood of the clustering of depressive symptoms within a neighborhood, on the expectation that in a shared environment, persons are likely to have more similar experiences, compared to residents of other neighborhoods. The Stata software “survey design” command was used to account for any potential clustering of depressive symptoms within neighborhoods. All analyses represent weighted data.

RESULTS

Profile of the sample

While there were no sex differences in mean age or area of residence, sampled males reported being better educated and had higher rates of employment, more household possessions, and experienced less crowding than females (Table 2).

Neighborhood scores by gender

Consistent with the sociodemographic differences in Table 2, an examination of neighborhood rating scores also demonstrated evidence of gender differences. More males lived in communities with better infrastructure, more highly-rated physical conditions, and their homes were more likely to have more green spaces around them (e.g., trees, plants) than their female counterparts (Table 3).

Depressive symptoms and gender

Twenty percent of the sample reported depressive symptoms, with

TABLE 2. Sociodemographic characteristics of sample ($n = 2\,848$) by sex in a study of the effects of urban neighborhood on depressive symptoms, Jamaica, 2007–2008

Demographic characteristic	Males		Females		Total		P
	% ^a	No.	% ^a	No.	% ^a	No.	
Mean age (95% Confidence Interval)	37.4 years (37.3, 37.5)		37.3 years (37.2, 37.4)		37.4 years (37.3, 37.4)		NS ^b
Area of residence							NS
Urban	64.7	515	64.2	1 143	64.5	1 658	
Rural	35.3	372	35.8	818	35.5	1 190	
Highest education attained							< 0.05
Primary or lower	33.1	372	29.5	730	31.3	1 102	
Secondary	53.9	417	60.8	1 043	57.5	1 460	
Post-secondary	12.9	91	9.7	177	11.3	268	
Employment status							< 0.0001
Unemployed	18.8	184	43.3	841	31.3	1 025	
Employed	70.8	639	47.3	981	58.8	1 620	
Student	10.4	58	9.4	125	9.9	183	
Household possessions (No. items)							< 0.01
≤ 8	35.1	371	41.8	868	38.5	1 239	
9 – 11	30.1	251	31.5	603	30.8	854	
12 – 18	34.7	264	26.7	482	30.7	746	
Crowding in home							< 0.0001
Crowded (> 1 person/room)	37.6	314	62.6	1 161	50.4	1 475	
Not crowded	62.3	566	37.3	790	49.6	1 356	

^a Percent unless otherwise specified.

^b Not significant.

TABLE 3. Neighborhood rating scores of urban males and females ($n = 2\,848$) in a study of the effects of urban neighborhood on depressive symptoms, Jamaica, 2007–2008

Score	Males		Females		Total		P
	%	No.	%	No.	%	No.	
Infrastructure							
Low	40.9	402	40.9	846	40.9	1 248	< 0.01
Moderate	32.9	268	38.9	710	36.0	978	
High	26.2	217	20.1	405	23.1	622	
Physical conditions (quality)							
Low	27.5	240	34.6	644	31.1	884	< 0.01
Moderate	26.1	247	22.3	441	24.2	688	
High	46.4	397	42.9	866	44.6	1 263	
Neighborhood services							
Low	37.7	346	37.3	739	37.5	1 085	NS ^a
Moderate	33.1	277	36.8	678	35.0	955	
High	29.2	261	25.8	535	27.4	796	
Green spaces score							
Low	53.4	486	55.6	1 060	54.5	1 546	< 0.01
Moderate	23.1	206	26.8	515	25.0	721	
High	23.5	174	17.5	320	20.5	494	
Settlement pattern of community							
Informal/unplanned	42.8	366	45.5	852	44.2	1 218	
Formal/planned	57.1	474	54.5	1 027	55.8	1 501	NS

^a Not significant.

many more women (25.6%) affected than men (14.8%). Also at risk were persons who were less educated, unemployed, living in crowded households, owning fewer household possessions, and living in informal/unplanned communities (Table 4). There were, however, no associations with area of resi-

dence or age group, income, or union status (data not shown).

Neighborhood characteristics and depressive symptoms

Given the gender differences in risk of depressive symptoms and quality of the

TABLE 4. Depressive symptoms by sociodemographic characteristics among urban males and females, in a study of the effects of urban neighborhood, Jamaica, 2007–2008

Demographic/socioeconomic status	Males		Females		Total		P or P (trend) ^a
	%	No.	%	No.	%	No.	
Prevalence of depressive symptoms	14.8	139	25.6	484	20.3	620	< 0.0001
Highest education attained							0.05
Primary or lower	19.5	70	26.5	193	22.9	263	
Secondary	13.4	60	25.5	252	19.9	312	
Post-secondary	8.7	8	23.4	37	15.3	45	
Employment status							< 0.05
Unemployed	15.6	32	27.6	229	24.1	261	
Employed	15.5	100	23.8	219	18.9	319	
Student	8.8	6	25.8	34	17.0	40	
Crowding in home							< 0.01
Crowded	16.5	51	25.9	295	22.5	346	
Not crowded	13.9	88	25.1	187	18.2	275	
Household possessions (No. items)							< 0.001
≤ 8	16.6	68	29.6	249	23.8	317	
9–11	20.2	46	22.5	135	21.4	181	
12–18	8.4	25	23.1	99	14.9	124	
Settlement pattern of community							< 0.05
Informal/unplanned	18.2	62	29.6	241	24.9	303	
Formal/planned	12.3	70	21.9	218	19.2	288	
Area of residence							NS ^b
Urban	14.8	85	26.4	292	20.7	377	
Rural	14.8	54	24.1	192	19.6	246	

^a P (trend) reported for highest education, employment, and household possessions.

^b Not significant.

living environments, separate multivariate models were developed for men and women. As there were no associations with depression and the neighborhood among rural residents of either gender, the models were only developed for urban residents.

Table 5 displays both gender models and shows that the neighborhood contributed a two-fold increase in the odds of depressive symptoms for males and females. However, there was a sex differential in the specific neighborhood feature implicated in urban Jamaica. For males, living in a neighborhood with low physical conditions increased their burden of depressive symptoms (Odds ratio [OR]: 1.92; $P = 0.035$), while for females, living in an informal community was their driver of risk (OR 2.09; $P = 0.016$). Socioeconomic risk factors also increased the risk among men who had < 8 possessions (OR 2.45; $P = 0.016$) or 8–11 possessions (OR 2.5; $P = 0.004$), compared to those with 12–18 possessions. Poor health status was another important predictor for women and included being underweight (OR 3.14; $P = 0.006$) or diabetic (OR 2.16; $P = 0.004$).

DISCUSSION

This is the first study conducted in Jamaica to examine neighborhood effects on depressive symptoms and to document a differential effect on men and women. The data suggest the characteristics of impoverished, urban neighborhoods are associated with depressive symptoms in developing countries, just as they are in developed countries (6). The Jamaican experience further suggests that the neighborhood has a differential gender effect. Men reporting depressed symptomatology were more likely to live in communities with poor physical conditions (e.g., dilapidated housing, deteriorating infrastructure, and high noise levels), with their risk being exacerbated by their personal lack of resources. While unfavorable neighborhood conditions were important among women, it was the informal community that predicted their risk. Their resource limitations were indirectly related to a poor quality diet, evidenced by their three-fold risk of being underweight and their two-fold risk of being diabetic.

This indirect association between poverty and depressive symptoms among urban women may indicate that poverty *per se* is not the risk factor; rather, limited resources impose a mental health risk in this highly transactional, cash-based environment that is the urban setting. Conversely, the rural, agricultural environment provides more opportunities to meet basic needs with less cash, relieving the daily pressure of securing food and shelter, and doing so in a relatively safer setting.

These findings are supported by sociological theories on vulnerable groups in marginalized, urban neighborhoods and the increased risk of ill health, including poor mental health (29–30). Men who are poor cannot exert as much control over their environment and social circumstances, limiting their opportunities to escape poverty and climb the social ladder and increasing their risk of poor health outcomes (31–32). The urban male in Jamaica defines his manhood largely by his socioeconomic circumstances. His socioeconomic standing has implications for his ability to attract and support multiple female partners (a culturally popular phenomenon, especially in these communities). If he has a partner or partners or a family, he is unlikely to be able to adequately support them. The frustration of his own poverty and living among others who are unable to render any financial assistance, coupled with the feeling of vulnerability and his inability to live up to his expectations as a man, probably increase the risk of being depressed.

The urban female in the informal community was more likely to face increased stressors due to the characteristics of her environment. In addition to environmental hazards (e.g., floods, disease outbreaks), she was confronted by social hazards, such as inadequate social services, limited social support, and unsafe conditions due to higher rates of crime and violence. Social networks in the informal Jamaican setting are largely male-dominated, with women having little control over their circumstances and often being victimized. In these informal communities, male-dominated social systems offer men protection, recognition, and social mobility—gang networks and the informal economy might explain why the mental health of men remained unthreatened in this environment. Women, however, focus

TABLE 5. Adjusted odds ratio and confidence intervals for associations of neighborhood and sociodemographic factors with depressive symptoms among urban males and females, Jamaica, 2007–2008

Variable	Urban males ^a Odds ratio (95%CI) ^c	P	Urban females ^b Odds ratio (95%CI)	P
Neighborhood characteristics—				
Contextual resources				
Infrastructure (e.g., roads)				
Low	1.16 (0.53, 2.54)	0.694	1.33 (0.82, 2.18)	0.449
Moderate	1.40 (0.60, 3.27)	0.422	1.31 (0.64, 2.68)	0.237
High	1.00		1.00	
Physical quality (homes, community resources)				
Low	1.92 (1.05, 3.52)	0.035	1.40 (0.74, 2.64)	0.293
Moderate	2.18 (0.92, 5.17)	0.074	0.72 (0.37, 1.38)	0.319
High	1.00		1.00	
Settlement pattern of community				
Informal community	NA ^d		2.09 (1.15, 3.82)	0.016
Planned community			1.00	
Neighborhood characteristics—				
Collective resources				
Perceived community safety				
Very dangerous	NA	NA	1.75 (0.74, 4.15)	0.197
Can be dangerous/usually safe			1.27 (0.86, 1.88)	0.224
Safe/very safe			1.00	
Socioeconomic status, lifestyle, and health—				
Compositional resources				
Age (years)				
≥ 65	1.00		1.00	
45–64	0.85 (0.28, 2.45)	0.768	1.35 (0.66, 2.75)	0.396
25–44	1.23 (0.36, 4.16)	0.734	2.04 (0.91, 4.61)	0.084
15–24	1.10 (0.38, 3.12)	0.854	2.07 (0.86, 4.94)	0.101
Employment status				
Unemployed	1.05 (0.56, 1.97)	0.873	NA	NA
Student	0.49 (0.13, 1.87)	0.296		
Employed	1.00			
Household possessions (No. items)				
< 8	2.45 (1.19, 5.07)	0.016	1.01 (0.72, 1.42)	0.942
8–11	2.50 (1.36, 4.60)	0.004	1.39 (0.88, 2.20)	0.149
12–18	1.00		1.00	
Body mass index				
Obese (≥ 30 kg/m ²)	NA	NA	0.95 (0.60, 1.52)	0.851
Overweight (25–29 kg/m ²)			1.02 (0.60, 1.75)	0.924
Normal (18.5–24.9 kg/m ²)			1.00	
Underweight (<18.5 kg/m ²)			3.14 (1.41, 7.01)	0.006
Physical activity				
Inactive	0.98 (0.48, 2.00)	0.973	1.41 (0.85, 2.37)	0.180
Low	0.72 (0.28, 1.79)	0.478	1.65 (0.95, 2.86)	0.074
Moderate	0.52 (0.24, 1.12)	0.067	1.03 (0.63, 1.68)	0.902
High	1.00		1.00	
Diabetes	NA	NA	2.16 (1.28, 3.65)	0.004
Non-diabetic			1.00	
Total No.			1 042	

^a Urban male model adjusted for: education, green spaces, crowding, type of settlement, community safety, body mass index, diabetes status.

^b Urban female model adjusted for: education, green spaces, crowding, employment status.

^c 95% Confidence Interval.

^d Not applicable; variables excluded from final models.

on their survival and that of their children amidst an unsafe environment—compounding their risk of depressive symptoms.

While the dimorphism of being both underweight and diabetic may have reflected the urban woman's low socioeconomic status, her financial situation did

not emerge as a direct risk factor. This may be due to her ability to acquire resources from a male partner. The idiom, “no money, no honey,” highlights the women's capacity to engage her sexuality as part of her survival mechanisms.

Other investigators who have examined gender differences in risk of depression in the urban neighborhood have demonstrated inconsistent findings with regard to the urban female's risk of depression (15–16). Also, these studies failed to identify the specific neighborhood characteristics that drive the risk. This present study on Jamaica is of value as it has highlighted the gender-specific neighborhood triggers of depressive symptoms, a missing piece of the puzzle in the literature, and it is this gap in the literature that has been the subject of critique (33).

Study limitations

The low participation of males in Jamaican household surveys is not uncommon, thus warranting the weighting of data to reflect the true age and sex structure of the population (25, 34). Furthermore, the Jamaican experience has shown that more highly-educated individuals are more willing to make themselves available for community surveys (35).

Causal relations between the neighborhood and depressive symptoms could not be identified in this study due to its cross-sectional design, however it provides hypotheses for further investigation, including strategies for protecting mental health by considering the differential needs of men and women.

We were not surprised by the lack of association with green spaces due to both their relative pervasiveness even in Jamaica's urban settings, but also because the indicator that could be derived from these secondary data may not have had enough discriminatory capacity.

Urban planners considering urban renewal projects need to be mindful of not only physical improvements, but also what kind of social supports are necessary to protect the mental health of men and women in these informal and low-income communities. Further studies are needed to consider neighborhood perceptions and social capital (8) to provide a more comprehensive view of their health implications; these were not solicited by the present study. Lastly, clinical depression (28) was not

confirmed to validate depressive symptomatology and should be considered in other studies.

Conclusions

This study provides important new data on neighborhood conditions and mental health in a middle-income developing country and points to a sex differential in the etiology of depres-

sive symptoms among urban men and women. This sex differential is relevant for health and urban planners and policymakers as they craft social and health interventions and policies to improve population health. Multisectoral interventions (i.e., public health, social and infrastructure development, urban renewal, urban planning) are important to reduce the negative mental health effects of marginal environments.

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Conflicts of interest. None.

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Diferencias entre sexos en los efectos del vecindario urbano sobre los síntomas depresivos en Jamaica

RESUMEN

Objetivo. Explorar los efectos del vecindario urbano sobre la salud mental de los hombres y las mujeres de Jamaica, y sus implicaciones en materia de planificación urbana y desarrollo social.

Métodos. Se analizó una muestra transversal de hogares que incluyó a 2 848 personas de 15 a 74 años de edad y que se obtuvo de la Encuesta sobre Salud y Estilo de Vida en Jamaica, realizada los años 2007 y 2008. Se llevó a cabo un análisis secundario mediante la elaboración de puntuaciones compuestas para describir las características del vecindario registradas por el observador, incluidos las infraestructuras, los equipamientos y los servicios, las condiciones físicas, la situación socioeconómica de la comunidad y las zonas verdes próximas al hogar. Se evaluaron los síntomas depresivos mediante el Manual Diagnóstico y Estadístico de los Trastornos Mentales (DSM-IV). Se utilizaron métodos bifactoriales y multifactoriales para explorar las asociaciones entre el sexo, los factores del vecindario y el riesgo de padecer síntomas depresivos.

Resultados. Mientras que no se observaron asociaciones en los residentes de zonas rurales, los vecindarios urbanos se asociaron con un mayor riesgo de padecer síntomas depresivos. En hombres, la residencia en un vecindario con infraestructuras deficitarias aumentó el riesgo; en mujeres, la residencia en una comunidad informal o un vecindario no planificado aumentó el riesgo.

Conclusiones. El vecindario urbano contribuye a aumentar el riesgo de sintomatología depresiva en Jamaica. Los estresantes ambientales que afectan a los hombres y las mujeres son distintos. Es necesario que los planificadores urbanos y sociales tengan en cuenta el entorno físico cuando elaboren las intervenciones de salud en entornos urbanos, en particular en las comunidades marginadas.

Palabras clave

Salud urbana; remodelación urbana; depresión; género y salud; política social; equidad en salud; Jamaica.
