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How community physical, structural, and social stressors relate to mental health in the urban slums of Accra, Ghana

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ABSTRACT

Urban health in developing counties is a major public health challenge. It has become increasingly evident that the dialog must expand to include mental health outcomes, and to shift focus to the facets of the urban environment that shape them. Population-based research is necessary, as empirical findings linking the urban environment and mental health have primarily derived from developed countries, and may not be generalizable to developing countries. Thus, the current study assesses the prevalence of mental health problems (i.e., depression, perceived powerlessness), as well as their community-based predictors (i.e., crime, disorder, poverty, poor sanitation, local social capital and cohesion), among a sample of 690 residents in three poor urban communities in Accra, Ghana. It uncovers that residents in poor urban communities in developing countries suffer from mental health problems as a result of local stressors, which include not only physical and structural factors but social ones. Social capital and social cohesion show complex, often unhealthy, relationships with mental health, suggesting considerable drawbacks in making social capital a key focus among policymakers.

1. Introduction

Urban health in developing counties is a major public health challenge. Sub-Saharan Africa is the most rapidly urbanizing region in the world, and nearly all of this growth has been in urban slum settlements (Kjellstrom and Mercado, 2008). Numerous studies and reports have uncovered that these poor urban communities experience high rates of communicable (e.g., HIV) and, non-communicable diseases (e.g., respiratory disease, waterborne diseases, diabetes, stroke), injuries, and premature death (Ali, 2010; Butala et al., 2010; Kyobutungi et al., 2008; Sverdlik, 2011). The growing awareness that mental illness, particularly depression, is a tremendous contributor to the growing burden of disease worldwide, and especially in developing regions (Bird et al., 2010; Gupta et al., 2010; Izutsu et al., 2006; Lund et al., 2010; Prince et al. 2007), suggests that improving well-being among slum dwellers, a charge of the Millennium Development Goals (MDGs), requires significantly more attention to mental health outcomes than the few existing studies have given.

Poor mental health (e.g., depression, anxiety, perceived powerlessness) may be prevalent in poor urban communities as a result of individual and household characteristics (e.g., poverty, illness), as well as community characteristics. Slum communities are characterized by lacking infrastructure, insufficient sanitation, poor quality housing, overcrowding, joblessness, social mistrust, disorder, and crime (Izutsu et al., 2006; UN-HABITAT, 2006). A sizeable body of literature from the developed world evidences that routine exposure to these community-based stressors can contribute to mental health problems (Aneshensel and Sucoff, 1996; Haney, 2007; Kawachi and Berkman, 2001; Latkin and Curry, 2003; Ross, 2000; Ross and Mirowsky, 2009, 2001; Silver et al., 2002). Community-based social resources (e.g., social capital, social cohesion) may temper the relationship between local stressors and mental health, prompting scholars and policymakers to consider the utility of incorporating a concern for social capital and cohesion into plans for urban revitalization (Lang and Hornburg, 2010). However recent evidence of the downsides of social capital and cohesion in distressed communities illustrates the importance of exploring how, and for whom, these social resources may benefit mental health (Caughy et al., 2003; Curley, 2009; Mair et al., 2010; Mitchell and LaGory, 2002).

Existing findings may not be generalizable to developing regions, due to cultural variations in the meaning and expression of poor mental health, as well as in residents' adaptation to community stressors (Abas and Broadhead, 1997; Barke et al., 2011; de Menil et al., 2012; Ruback et al., 2002). Population-based research is necessary to assess the prevalence and social determinants of mental

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health problems in poor urban slum settlements. Further, identifying community-based social resources that contribute to, or diminish, mental health problems can assist urban planners, policymakers, and local community organizations in creating an environment that is conducive to physical and mental well-being (Smit et al., 2011).

Accordingly, the current study will assess prevalence of mental health problems, as well as their community-based predictors, among a sample of residents in three poor urban communities in Accra, Ghana. Specifically, it will gauge the prevalence of two indicators of poor mental health: depression and perceived powerlessness. It will then assess residents' levels of concern regarding potentially problematic community characteristics (e.g., crime, disorder, poverty, unemployment), and then examine the contribution of such community stressors to mental distress. Finally, it will assess the significance of social resources (e.g., social capital, social cohesion) for mental health, both directly and indirectly as a potential moderator of the relationship between stressors and mental health.

2. Significance of mental health in sub-Saharan Africa

Mental health disorders, which account for approximately 13% of disease, are a powerful contributor to the burden of illness in sub-Saharan Africa (WHO, 2008). However, mental health problems have not been prioritized by government, policymakers, and stakeholders, due to competing health priorities, lack of sufficient funding and health care infrastructure, perceived insignificance, and stigma (Bird et al., 2010; Jacob et al., 2007). The symbiotic relationship between physical and mental health indicates that treating and preventing mental health problems can build upon existing efforts to alleviate physical health problems in the region.

For example, experiencing depression, anxiety, and perceived powerlessness may lower inhibitions against risky behavior (e.g., inconsistent condom use, multiple sexual partners, drug and alcohol use), in turn heightening susceptibility to HIV and other communicable and non-communicable diseases (Hill et al., 2005; Lundberg et al., 2011). Mental health problems may also interfere in activities (e.g., employment, social involvement, exercise) that are beneficial to health (Canavan et al., 2013; Lund et al., 2010). Furthermore, poor mental health can inhibit adherence to medical treatment (e.g., antiretroviral therapy) (Nakimuli-Mpungu et al., 2012; Nel and Kagee, 2013), and directly weaken the immune system (Geronimus, 1992; Segerstrom and Miller, 2004).

Preventing mental health problems, and not simply treating them, requires a broader understanding of their social determinants. Existing research on mental health in sub-Saharan Africa has primarily focused on individual and household risk factors, including poverty, unemployment, inadequate housing, food insecurity, gender, age, marital status, education, intimate partner violence, and HIV status (Bove and Veleggia, 2009; Cole and Tembo, 2011; de Menil et al., 2012; Dewing et al., 2013; Gruebner et al., 2012; Khumalo et al., 2012; Kuo et al., 2012; Patel and Kleinman, 2003; Myer et al., 2008; Olagunju et al., 2012; Patel et al., 2006; Pillay and Kriel, 2006; Pitpitan et al., 2012; Sipsma et al., 2013). To date there is scant population-based research on how the structural, institutional, and social dynamics in disadvantaged urban settings can contribute to mental health outcomes.

3. Urban context and mental health

3.1. Structural and institutional dynamics

Numerous studies from developed countries have illustrated the importance of community context for mental health (Aneshensel and Sucoff, 1996; Haney, 2007; Kawachi and Berkman, 2001; Latkin and Curry, 2003; Ross and Mirowsky, 2009, 2001; Ross, 2000; Silver et al., 2002). Disorder (i.e., visual, physical, and social conditions that may be viewed as threatening or noxious, including crime, poor sanitation, noise, drug and alcohol use) can heighten depression, anxiety, and sense of powerlessness (Geis and Ross, 1998; Haney, 2007; Latkin and Curry, 2003; Ross, 2000; Ross and Mirowsky, 2009; Ross et al., 2001, 2000; Simning et al., 2012; Wen et al., 2006). In fact, signs of local disorder may worsen mental health even more powerfully than unique life events (e.g., death of a loved one, unemployment), as they are chronic, uncontrollable, and difficult to escape (Pearlin, 1989). There is also evidence that local disorder may contribute to the relationship between urban poverty and mental health (Haney, 2007; Ross and Mirowsky, 2001; Ross et al., 2001), and may serve to explain the link between slum residence and poor health outcomes found in existing studies in sub-Saharan Africa.

Living in disadvantaged communities can also directly worsen mental health. Communities are vital sites for the receipt of important services and resources (Ellen et al., 2001), particularly in less developed regions where access to extra-local resources is inhibited by limited or unaffordable transportation. Lack of local employment and educational opportunities significantly constrict prospects for economic success, heightening depression and powerlessness. Furthermore, paucity of health care facilities and professionals can inhibit screening and treatment of mental health disorders (Ellen et al., 2001).

3.2. Social dynamics

An examination of local social dynamics is also vital to an understanding of the processes by which community context relates to mental health. A rapidly growing body of literature has suggested that local social dynamics, specifically social capital and social cohesion, are powerful contributors to mental health (Aneshensel and Sucoff, 1996; Carpiano, 2006; Caughy et al., 2003; Cornwell and Waite, 2009; Curley, 2009; Fitzpatrick et al., 2005; Fitzpatrick and LaGory, 2000; Gary et al., 2007; Gutman and Sameroff, 2004; Kawachi and Berkman, 2001; Kim, 2010; Omata, 2012; Pearlin, 1989; Phan et al., 2009; Ross et al., 2000; Schulz et al., 2006; Thoits, 1995; Usher, 2007; Xue et al., 2005). Conclusions regarding the benefits of social capital and social cohesion are mixed, however, which reflects the complexity of the social processes by which they shape mental health, as well as lack of scholarly consensus on how to define and operationalize them.

Some scholars have defined social capital by the presence of social networks that produce norms of reciprocity and trust and, in turn, mutual benefit (Putnam, 1995). However, others have used this approach to conceptualize social cohesion, describing it as “trust, familiarity, values, and neighborhood network ties shared among residents….which serve as the basis from which social capital can be formed” (Carpiano, 2006). According to the latter perspective, social capital takes the form of actual or potential resources that *derive* from social networks (Bourdieu, 1986; Carpiano, 2006). Social capital can benefit mental health by providing an economic and psychological safety net in an environment that lacks sufficient opportunities to meet basic necessities (Aneshensel and Sucoff, 1996; Carpiano, 2006; Caughy et al., 2003; Cornwell and Waite, 2009; Curley, 2009; Fitzpatrick et al., 2005; Fitzpatrick and LaGory, 2000; Gary et al., 2007; Kawachi and Berkman, 2001; Kim, 2010; Omata, 2012; Pearlin, 1989; Phan et al., 2009; Ross et al., 2000; Sampson et al., 1997; Thoits, 1995; Usher, 2007; Xue et al., 2005). In disadvantaged contexts, social capital may be vital for assistance with day-to-day tasks and vital needs (e.g., economic assistance, providing food, lending goods, child care, household repairs, transportation). Further, it may provide emotional support and counteract the stressful cues in the neighborhood space (Aneshensel and Sucoff, 1996; Finfgeld-Connett, 2005).

The mere presence of close-knit neighborhood social networks (i.e., social cohesion), however, does not inherently translate into social capital for all residents. Members of local social networks may be less inclined to aid newly arrived residents or those who are