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Crisis visits and psychiatric hospitalizations among patients attending a community clinic in rural Southern California

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Abstract

Background—Ethnic minorities from disadvantaged socioeconomic backgrounds report increased utilization of mental health emergency services; however findings have been inconsistent across ethnic/racial groups. In this study we describe patients who present to a rural crisis unit in Southern California, examine rates of psychiatric hospitalizations across ethnic/racial groups, and investigate factors that are associated with increased psychiatric hospitalizations in this sample.

Methods—This is a retrospective study of 451 racially and ethnically diverse patients attending a crisis unit in Imperial County, California. Chart review and data abstraction methods were used to characterize the sample and identify factors associated with psychiatric crises and subsequent hospitalizations.

Results—The sample was predominantly Latino/Hispanic (58.5%). Based on chart review, common psychosocial stressors which prompted a crisis center visit were: a) financial problems; b) homelessness; c) partner or family conflict; d) physical and health problems; e) problems at school/work; f) medication compliance; g) aggressive behavior; h) delusional behavior; i) addiction and j) anxiety/depression. Bivariate analyses revealed that Hispanics had a disproportionately lower rate of psychiatric hospitalizations while African Americans had a higher rate. Multivariate analyses which included demographic, clinical and psychosocial stressor variables revealed that being African American, having a psychotic disorder, and presenting as gravely disabled were associated with a higher likelihood of hospitalization while partner/family conflict was associated with a lesser likelihood in this rural community.

Discussion—These data elucidate the need for longitudinal studies to understand the interactions between psychosocial stressors, ethnicity and social support as determinants of psychiatric hospitalizations.

Keywords

hospitalization; rural mental health; ethnic minorities; underserved

Introduction

Since 1978, the President's Commission on Mental Health has emphasized the importance of improving access to care for ethnic minorities living in economically disadvantaged communities (Cheung & Snowden, 1990). Simultaneously, the literature has reported challenges to access including a dearth of available mental health services, inadequate training resources, and difficulties with the recruitment and retention of psychiatrists in rural areas who could provide treatment for minorities and underserved population(Wilks CM, Oakley Browne M, & Jenner BL, 2008). Compared to Caucasians, Hispanics receive fewer mental health services (Kessler RC et al., 1997). Additionally, Hispanics and African-Americans tend to be more noncompliant with treatment; frequently drop out of treatment prematurely and report a greater intensity of psychiatric symptoms before seeking services; all factors which may lead to higher hospitalization rates (Cheung & Snowden, 1990; Karno M et al., 1987).

It has been documented that ethnic minorities from a disadvantaged socioeconomic status (SES) and experiencing various types of psychosocial stress, have increased utilization of mental health emergency services (Snowden, Masland, Libby, Wallace, & Fawley, 2008), likely because they are not seeking standard mental health services or that these services are simply not available. Conversely, it has also been documented that Hispanics tend to have fewer psychiatric hospitalizations, possibly due to increased family cohesiveness (Gallo LC, Penedo FJ, Espinosa de los Monteros K, & Arguelles W, 2009). This epidemiological phenomenon of robust health in the context of lower SES has been called the "Latino paradox" (Franzini et al., 2001). However, understanding of this phenomenon is obscured in regions where Hispanic populations operate separately from other community or governmental institutions such as in western regions of the United States. For these reasons evidence of this paradox that relies on morbidity data has been called into question (Smith and Bradshaw, 2006). Further investigation in mental health services (which are potentially more robust to reporting effects) in rural Hispanic populations could further elucidate this phenomenon.

In order to further understand the use of emergency mental health services among rural patients from varying racial and ethnic backgrounds, we conducted a retrospective analysis of different stressors that prompted patients to seek services at a crisis center in rural Southern California. In addition, we investigated differences in use of mental health crisis services across three ethnic groups and examined various factors that may impact psychiatric hospitalizations, including demographic, contextual, and clinical characteristics.

Methods

In this study we collected information from the Imperial County Behavioral Health crisis service from September 1st of 2007 until September 30th of 2008. Imperial County borders San Diego County and Mexico and is one of the poorest counties in California (California Food Policy Advocates, February 2008). This crisis unit provides an evaluation of individuals presenting with psychiatric emergencies to determine if the patients require hospitalization. If patients need further psychiatric treatment, based on the severity of their symptoms, they are referred for a formal psychiatric intake with a staff psychiatrist.

A total of 451 cases were evaluated during this timeframe, including 264 Hispanics (58%), 36 African Americans (8%), 133 Caucasians (29%), 6 Asians (1.3%); ethnicity data were missing for 12 cases (2.6%). Fifty one percent of the sample was male.]Two psychiatrists with extensive experience in psychiatric evaluations and rural mental health (AC and BN) conducted the chart reviews and extracted demographic information as well as data

regarding the stressor that brought the patient to the crisis unit. These stressors were selected based on the clinician's documentation of reason to attend the crisis unit. Information about the patient's clinical diagnoses, imminent danger and grave disability status was also extracted. Master's degree clinicians conducted the initial evaluations, which included a Diagnostic and Statistical Manual (DSM) (American Psychiatric Association, 2000) multiaxial diagnostic formulation and consequent referral, if needed, to the psychiatrist.

Data Analysis

Chi square analyses were used to determine whether the presence or absence of a psychiatric hospitalization varied across demographic variables, psychosocial stressors, clinical diagnoses and imminent danger status (e.g: danger to self, danger to others or gravely disabled). In order to facilitate analyses, the following diagnostic categories were created: a) Adjustment Disorder; b) Anxiety Disorders; c) Bipolar Disorder; d) Depressive Disorders; e) Impulse Control Disorder; f) Psychosis; g) Attention Deficit Hyperactivity Disorder and Disruptive Behavior Disorder; and h) Substance Abuse Disorders. All associations that were significant at $p< 0.05$ were entered into a multivariate logistic regression analysis to determine which variables increased the likelihood of a psychiatric hospitalization. Analyses were conducted with SPSS version 17.0. The study was approved by Alliant International University's Institutional Review Board in San Diego.

Results

Based on data from 451 patients, the following stressors were identified as contributors to the psychiatric crisis and subsequent hospitalization: 1) partner or family conflict (33%); 2) medication compliance (13.1%); 3) delusional behavior (12.2%); 4) addiction (8%); 5) anxiety/depression (8%), 6) problems at school/work (7.8%); 7) financial problems/ homelessness (6.4%); 8) physical and health problems (2.9%) and; 9) aggressive behavior (2.2%).

Of the 451 patients admitted to our crisis center during the review period, 77 (17%) were hospitalized; thirty nine Hispanics (50.6%), 22 Caucasians (28.6%), 14 African Americans (18.2%) and 2 Asians (2.6%). Chi square analyses revealed that Hispanics had a disproportionately lower rate of hospitalization (14.7%) (OR: 0.6; 95%CI:0.3–0.9; $p=0.04$) relative to the larger group (21.7%) (including Caucasians, African Americans and Asians) while African Americans showed a disproportionately high rate of hospitalization (38.8%) (OR: 3.5; 95%CI: 1.7–7.3; $p<0.01$) relative to the larger group (15.6%) (including Caucasians, Asians, and Hispanics).

Based on chi square analyses the odds of a psychiatric hospitalization were significantly increased in the presence of the following stressors: homelessness (OR:2.7; 95%CI:1.2–6.2; $p < 0.05$), aggressive behavior (OR:5.1; 95%CI:1.4–18.1;$p=0.05$) and delusional behavior (OR:4.1; 95%CI:2.2–7.6; $p<0.01$). There was a significant lower odds of hospitalization associated with a partner/family conflict (OR:0.1; 95%CI:0.07–0.3; $p<0.01$). Being gravely disabled was associated with an increased odds of hospitalization (OR:7.8;95%CI:3.8–16.0;$p<0.01$) while being a danger to self was associated with a lower risk for hospitalization (OR:0.5;95%CI:0.3–0.8;$p<0.05$).

Of the nine DSM-IV diagnostic categories which were created for this study, there was a significantly higher likelihood of hospitalization in the presence of a psychotic disorder (OR:7.3; 95%CI:4.2–12.4; $p<0.01$). Adjustment and impulse control disorders were associated with a significantly lower likelihood of hospitalization (OR:0.1; 95%CI:0.03–0.3; $p<0.01$ and OR:0.1; 95%CI:0.45–0.79; $p<0.05$).

In the final multivariate logistic regression analyses, only those stressors and diagnoses that were significant ($p < .05$) in the bivariate analyses for hospitalization were included. Psychosocial stressor variables that were overlapping with diagnostic variables (e.g., anxiety/depression, addiction) were excluded. Ethnicity variables were entered on the first step, clinical diagnostic variables on the second step (psychosis, adjustment disorder, and impulse control disorder) and psychosocial stressors on the third step (aggressive and delusional behavior, homelessness, partner/family conflict, being a danger to self and gravely disabled). Findings revealed that being African American (OR:2.5; 95%CI:1.0–6.0; p=0.03), being diagnosed with a psychotic disorder (OR:3.1; 95%CI:1.6–5.7; p<0.01), and presenting as gravely disabled (OR:5.7: 95% CI:2.0–16.6; p=0.01) lead to an increased odds ratio of being hospitalized, while partner/family conflict continued to be associated with a lower odds ratio of hospitalization (OR: 0.3; 95%CI:0.95–0.99; p<0.05).

Discussion

To our knowledge, this is the first study examining psychosocial stressors and factors that are associated with psychiatric hospitalization in an underserved and predominantly Hispanic rural community in southern California. Our data showed two main cultural issues that have an impact on psychiatric hospitalizations.

First, being African American, having a psychotic diagnosis and being gravely disabled are significantly associated with increased hospitalization in a predominant Hispanic county; which supports previous studies where African-Americans tend to have a higher rate of psychiatric emergency visits and a higher odds of being hospitalized compared to other ethnic groups (Snowden LR, Hastings JF, & Alvidrez J, 2009)(Snowden et al., 2008). Ethnic tensions and mutual perceptions of dangerousness exist between African Americans and Hispanics in predominantly low SES neighborhoods (Kyriacou DN, Hutson HR, Anglin D, Peek-Asa C, & Kraus JF, 1999). According to a public health study done in Chicago, the odds of violent behavior was 85% higher for African Americans compared with Whites, whereas Latino-perpetrated violence was 10% lower compared to these ethnic groups; the gaps were explained primarily by protective factors such as the marital status of parents, immigrant generation, and dimensions of neighborhood social context(Sampson RJ, Morenoff JD, & Raudenbush S, 2005). These socio-cultural factors need to be further operationalized to determine if there is a need to increase community cohesiveness towards African Americans, especially in border rural counties to reduce contextual stresses that may impact hospitalizations.

These findings may also support a potential for clinician bias in diagnostic assessments and treatment recommendations for hospitalization (Sohler NL, Bromet EJ, Lavelle J, Craig TJ, & Mojtabai R, 2004). It has been reported that African Americans may express psychotic behavior in a manner that could be seen as increased hostility towards others and be misinterpreted as a deficit in their ability to function, hence increasing the clinician's inclination for hospitalization(Compton MT, Carter T, Kryda A, Goulding SM, & Kaslow NJ, 2008). With our results, this model needs to be further explored in our Hispanic rural community to evaluate if there are any perceived differences in hospitalization practice among clinicians based on the patient's presenting psychiatric symptomatology and ethnic background. To further support this theory, a recent report showed that African Americans tend to receive less psychosocial interventions after being discharged from the hospital after a psychotic episode(Goulding SM, Franz L, Bergner E, & Compton MT, 2010). Without appropriate culturally sensitive services for African Americans, this could perpetuate the ongoing observed cycle of increased grave disability, psychosis and repetitive hospitalizations(Way BB & Banks S, 2001). Future interventions need to explore other factors that may be associated with ethnicity and decompensation of psychiatric symptoms

in rural border communities. Once these factors are identified, culturally sensitive preventive measures could be instituted to prevent recurrent hospitalizations. Assessment of primary support groups for future disposition from our crisis unit will also help determine culturally sensitive interventions that may differ among different ethnic groups. The disposition and prevention of future hospitalization might vary in this area, where Hispanics are the ethnic majority. Future program evaluations should look at the need to implement different psychosocial interventions among the remaining ethnic groups in this rural area, such as African Americans and Caucasians.

The second important finding of our study is the inverse association between psychiatric hospitalization and partner/family conflict in our predominantly Hispanic sample residing in Imperial County. Our preliminary data are consistent with a previous study from San Diego County in which Spanish-speaking Latinos were less likely to access care through emergency services compared to Caucasians (Folsom DP et al., 2007). These data may underscore the potential protective effects of interpersonal relationships (i.e.,familism/family support), even when there is conflict, to avoid psychiatric hospitalizations. These preliminary findings lend support to efforts to elaborate prevention/intervention models that enhance the empowerment of families to reduce psychiatric hospitalizations.

An important cultural factor that needs further study is the degree of acculturation among Hispanics attending our crisis unit. It would l be interesting to evaluate the association between psychosocial stressors, psychiatric diagnosis and need for immigration-related assistance in this community. The literature has reported that less acculturated individuals respond better to basic case management interventions that target their basic needs such as food, clothing and shelter which could potentially reduce costly psychiatric hospitalizations (Telles C et al., 1995). Acculturation factors need to be further evaluated in our community since this could have an influence on the moderating influence of family support on psychiatric hospitalizations.

To our knowledge, few studies have looked at psychosocial stressors associated with psychiatric hospitalization in border and/or rural regions where Hispanics are often the predominant population. Since this community has been described as one of the poorest regions in California (California Food Policy Advocates, 2002), the influence of socioeconomic status should be considered. Gallo and colleagues have described how the Reserve Capacity Model(Gallo LC, Bogart LM, Vranceanu AM, & Matthews KA, 2005; Gallo LC et al., 2009) is an important theoretical framework for understanding how low SES can contribute to health outcomes. Our cross-sectional data shows an inverse association between family stressors and psychiatric hospitalization, which could be supported by the theory of enhanced resilience (e.g., social resources, familism, religiousness) in the face of adverse circumstances, such as increased psychosocial stressors resulting in emergency psychiatric visits (Gallo LC et al., 2009). Research around this theory is needed to measure short term and long term outcomes (i.e. exacerbation of psychiatric symptoms after the crisis visit, suicidal behavior, and increased stressors) in those patients who were not hospitalized and were released back home to their families. Zayas and colleagues have shown that suicidal behavior in young Hispanic women has been associated with poor family bonding (Zayas LH & Pilat AM, 2008). In our sample, we need to further measure and validate the influence of family support as a sustainable protective factor against hospitalizations, since we do not have information about every day family dynamics and bonding among residents in rural areas such as Imperial County. In order to further corroborate our hypothesis, future studies should look at the long term effectiveness of social programs such as case management with family oriented in-home supportive services geared towards reduction of crisis visits and hospitalizations.

As a pilot study, there are some limitations. First, this study is a retrospective review of crisis visits with a relatively small sample that was collected during a one-year period. Secondly, patients were not evaluated with a research diagnostic tool like the SCID or MINI; although the diagnoses were based on DSM-IV mutiaxial approach by trained Master's level clinicians and psychiatrists with extensive experience in rural mental health. Third, we did not included a formal measurement of psychosocial stressors. Fourth, given the small sample size and the absence of randomization, these findings may not be generalizable to other rural and/or border communities.

Conclusion

Our findings elucidate the consensus by experts in the field (Vega WA et al., 2007) that more research is needed to understand resiliency factors, help-seeking behaviors and variables that predict utilization of mental health services among African Americans and Hispanics living in underserved rural areas, especially close to the Mexican border. More specifically, this study suggests the need for long term studies to understand factors that are associated with reduced rates of hospitalization or even reduced access to psychiatric care due to individual and interpersonal culturally sensitive factors. Findings suggest that there may be interactions between ethnicity, diagnosis and how care is triaged, that have implications for the use of mental health emergency services/psychiatric hospitalizations. Comprehensive and longitudinal studies are imperative to answer the above questions relevant to our rural community. Additionally, further research is necessary to examine important variables such as the quality, cultural appropriateness, and effectiveness of psychosocial and pharmacological interventions among different ethnic groups living in underserved rural communities close to the Mexican border.

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