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The Latino Mental Health Project: A Local Mental Health Needs Assessment

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Abstract In this article, we present the results of a local needs assessment of the mental health experiences, service needs, and barriers to treatment-seeking of the Latino population in Worcester, Massachusetts. Overall, participants reported relatively high rates of experiences with symptoms of mental health problems, they indicated using a range of both formal and alternative mental health services, and they noted a variety of instrumental, attitudinal, and culturally-specific barriers to seeking mental health services. Findings are discussed with regards to the role that community-driven research can play in advancing efforts to provide relevant services to underserved populations.

Keywords Needs assessment · Latinos · Service utilization · Barriers

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Introduction

The Latino population in the United States has grown tremendously over the past ten years. The recent 2000 U.S. Census noted that the Latino population grew 58% since 1990, thus becoming the largest ethnic minority group in the United States, with an estimated population of over 35 million (U.S. Bureau of the Census, 2000). This increase in the Latino population has prompted greater national attention to the mental health needs of Latinos and their families among researchers (e.g., Lopez, 2002; Snowden & Yamada, 2005; Vega & Lopez, 2001) and governmental agencies (e.g., U.S. Department of Health and Human Services, 2001). Through this increased attention to the mental health needs of Latinos, researchers have noted that Latinos are significantly less likely to utilize formal mental health services than are non-Latinos, particularly if they are less acculturated or recent immigrants

(Cabasa, Zayas, & Hansen, 2006; Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996; Wells, Hough, Golding, Burnam, & Karno, 1987; Wells, Klap, Koike, & Sherbourne, 2001).

These rates are not insignificant. For instance, results from the recently completed National Comorbidity Survey Replication (NCS-R) study indicated that although 41.1% of individuals with a DSM-IV diagnosis in the past twelve months sought services within the prior year, Latinos were only 0.6 times as likely to seek services as non-Latino Whites (Wang et al., 2005b). Data examining lifetime treatment-seeking rates revealed differences across various DSM-IV disorders, with Latinos being significantly less likely than non-Latino Whites to seek treatment for panic disorder, major depressive episodes, and bipolar disorder (Wang et al., 2005a). When Vega, Kolody, Aguilar-Gaxiola, and Catalano (1999) used bicultural and bilingual interviewers to examine utilization rates among Mexican Americans with a DSM-III-R diagnosis, they found overall treatment-seeking rates of only 28.1%. Treatment-seeking rates dropped further when focused on general medical providers (18.4%) and mental health specialists (8.8%).

The research that has attempted to understand the disparities in mental health care for Latinos has led to a variety of explanations for why Latinos may receive inadequate mental health services (Aguilar-Gaxiola et al., 2002; Alegría et al., 2002; Cabassas et al., 2006; Johnson, Saha, Arbelaez, Beach, & Cooper, 2004; Lopez, 2002; Vega & Lopez, 2001). Some of the explanations have focused on system-level barriers (e.g., lack of Spanish-speaking service providers, inadequate training in the delivery of culturally competent services), while other explanations have focused on patient-level barriers (e.g., different views of mental health and mental health treatment, concern regarding stigma, logistical problems associated with poverty).

And yet, despite this increased information, there remain significant disparities in mental health care for Latinos (Harman, Edlund, & Fortney, 2004; Lopez, 2002; U.S. Department of Health and Human Services, 2001). While there likely exist many potential solutions to this public health problem, one avenue that has received relatively little attention is the role that community-based research can play by conducting local needs assessment research. There are several benefits that can be gained from local needs assessment research. First, local communities can acquire a more nuanced understanding of the needs that are relevant to their particular populations. For example, important demographic differences exist in Latinos across various regions of the United States (e.g., Mexican Americans in Southwest and Western US, Cuban Americans in Florida, Puerto Ricans and Latinos from the Caribbean in the Northeastern US), and it is plausible that Latinos from these various regions may have different needs and concerns. Thus, it is critical that mental health organizations be aware of the particular needs and concerns of the populations that they serve. Second, research that is conducted by local communities may lead more naturally to concrete efforts to address mental health care disparities in those areas. For example, community organizations that participate in needs assessment research may find that they have been misjudging the extent to which the particular services they offer are in demand by the local community. Thus, bolstered by empirical support, they may find it more beneficial to reallocate resources away from under-demanded services towards services that may need more attention. And third, locally conducted research can empower the community (through community organizations as well as individual members) to request increased financial support from local governments. After all, it is one thing for local governments to know about the general need for more Spanish-speaking health providers; it is another for local governments to hear from their constituents that this need is a relevant priority.

Thus, while the national research has provided invaluable information regarding the mental health needs and utilization of services among Latinos, there is much to gain by having communities conduct their own local needs assessment research. In this article, we describe the efforts of one local collaborative endeavor to conduct such a needs assessment project with the Latino population. We first present the rationale for the project, then describe the methodology and findings, and conclude by discussing implications for future work.

Rationale for the Latino Mental Health Project

The Latino Mental Health (LMH) Project emerged out of the collaborative efforts of various individuals and organizations in Worcester, Massachusetts, a medium-sized city in New England. Part of the impetus to conduct the LMH Project was the fact that the nationwide population surge in Latinos has been matched in Worcester. According to the 2000 U.S. Census data, between 1990 and 2000 the Latino population in Worcester grew from 9.6% in 1990 to 15.1% in 2000, a 61% increase (U.S. Census Bureau, 2000). The majority of Latinos in Worcester self-identify as Puerto Rican (65.3%), a group that some

researchers have suggested may be particularly at risk for some mental health disorders (e.g., Bassuk, Perloff, & García-Coll, 1998; Cardemil, Kim, Pinedo, & Miller, 2005; Vera et al., 1991).

However, despite this population growth and the large number of mental health services available in the Worcester area, many local healthcare providers, mental health providers, human service providers, and community members in Worcester have expressed concerns about the adequacy of mental health treatment for Latinos. Most of these concerns have been consistent with those identified at a national level (e.g., U.S. Department of Health and Human Services, 2001) and include concerns regarding the limited number of available bilingual/bicultural professionals in the Worcester area, the lack of accessible information regarding the mental health service system, and the high rates of poverty in the city.

The Latino Mental Health Project Planning Council

In recognition of the fact that the local Latino population was underserved with regard to mental health services, the Massachusetts Department of Mental Health (MDMH), Central Massachusetts Area, developed a partnership in 2002 with several well-established health and education organizations, consumers of mental health services, their families, and other community members. This partnership was termed the LMH Project Planning Council, and its long term goal was to begin developing a collaboratively-oriented action plan that could improve access to culturally competent mental health services and programs for the Latino community in Worcester. Over the course of the last four years, the LMH Project Planning Council has met on a monthly basis to generate ideas for collaborative projects that would move towards the long-term goals of improving services. During the first year of this process, the LMH Project Planning Council decided to conduct an assessment of local mental health needs and barriers to mental health services among Latinos in the community. We now discuss the findings of this project.

Method

Procedure

Participants were recruited through the distribution of flyers, word of mouth, and local Spanish-language radio station announcements. The study was described as an investigation of mental illness and services, and that we welcomed participation from all interested Latinos, whether or not they had personal experience with either mental illness or mental health services. Some individuals called a central number to express their desire to participate, while others were recruited in a variety of community settings including area health centers, social services agencies, grocery stores, beauty salons, and churches. Individuals who expressed interest in participating in the study were given a consent form in which the procedures were explained to them. After providing consent, participants then completed the interview in a private location where they were recruited. Another location was identified for individuals who called into the central number or for those locations where no private area was readily available. All participants were paid $30 at the conclusion of the interview. In order to accommodate participants who preferred Spanish over English, all study materials were available in either Spanish or English and all study staff were bilingual. This research was reviewed and approved by the Committee for the Protection of Human Subjects of the Department of Mental Health.

Participants

A total of 166 community members participated, of whom 162 provided sufficient data to be included in this study. The majority of the participants were women ($n = 111$, 68.5%). The participants' ages ranged between 18 and 75 years, with a mean age of 42.1 ($SD = 13.7$). There were similar numbers of participants who reported that they were married or living with a partner ($n = 59$, 36.4%), divorced or separated ($n = 41$, 25.3%), or single ($n = 52$, 32.1%).

There was considerable variability among the participants regarding their self-identified country/region of origin. The largest group of participants reported that they were from Puerto Rico (49.4%), and the second largest group of respondents was from the Dominican Republic (15.4%). Of note, only a minority of the participants reported they were born in the mainland United States (8.6%). Participants noted that they had lived in the mainland USA for an average of 16.2 years ($SD = 13.4$) and in Worcester for an average of 10.0 years ($SD = 8.2$). The vast majority of participants (82.7%) reported that they felt more comfortable communicating in Spanish than English, with only 2% indicating that they felt comfortable with both languages.

There was a range of income reported, with 30.0% of participants reporting that their monthly income was under $750 per month. The average number of people

in the household who were supported by this income was 2.8 (SD = 1.6). Twenty-one percent of participants stated they received some form of public assistance. The majority of the respondents (67.3%) reported that they had some type of health insurance. Of these, the largest proportion (45.7%) had MassHealth (i.e., the Massachusetts Medicaid program), while only 20.4% had private insurance. Of the participants who reported that they did not have any health insurance (32.7%), 30% indicated having received some assistance from the Uncompensated Care Pool (i.e., ''free care'').

Assessment Instrument

In collaboration with community members, the authors of this article developed a novel community needs assessment interview for this study (Adams et al., 2005). The resultant semi-structured interview was designed to gather information regarding experiences with mental health symptoms, treatment-seeking behavior, barriers to treatment-seeking, and experiences with mental health services. On average, the interview took approximately 45 minutes to administer and was available in either English or Spanish, depending on the preference of the participant.

When conducting the interview, the interviewers first collected general demographic data, followed by information about the participants' experiences with symptoms of the most common mental disorders, both currently and at any time in the past. Questions relating to symptoms were taken from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV; American Psychiatric Association, 1994) and modified for the purposes of the study. For example, when asking about experiences with depressive symptoms, the interviewer would ask the following question: ''For a period of at least two weeks, did you have several of the following symptoms: (a) feeling down, depressed, or hopeless, (b) feeling less interest or pleasure in doing things that you ordinarily would enjoy (c) difficulty sleeping, (d) feeling tired or having less energy than normal, or (e) feeling particularly badly about yourself?''

In addition, the interviewers asked questions about experiences with culture-bound syndromes and culture-specific expressions of emotional distress, again both currently and at any time in the past (see Appendix). The DSM-IV describes culture-bound syndromes as ''recurrent, locality-specific patterns of aberrant behavior and troubling experience that may or may not be linked to a particular DSM-IV diagnostic category'' (pp. 844). Given the absence of clearly identified criteria for these syndromes, participants were asked if they had had any experience with each of eleven syndromes and provided with definitions and descriptions if needed.

Those participants who indicated they had had some experience with one of the various types of mental health problems were subsequently asked to indicate whether or not they had sought any form of help for the problem. To those participants who indicated that they had sought services, we then asked two primary questions related to mental health treatment. First, we asked them for which of the endorsed symptoms they sought help. Second, we asked them to indicate the specific type of treatment they sought based on fourteen choices, including a range of traditional mental health services (e.g., outpatient psychotherapy, pharmacotherapy, inpatient treatment) as well as several alternative health services (e.g., consultations with priest or minister and several different types of indigenous healers). Those participants who indicated that they had not ever sought services were asked what prevented them from seeking services and what they did to manage their mental health related symptoms. All of the questions were forced-choice, in that the participants were given clear options regarding possible answers. In addition, there was always an ''other'' category, which allowed participants to provide answers that fell outside of the range of commonly endorsed categories.

In order to assure that the interview process had adequate content validity, the development process occurred in two stages. During the first stage, the members of the LMH Project Planning Council collaboratively generated the content of the interview using as a guide their personal experience working on mental health issues in the Latino community. During the second stage, the LMH Project Planning Council conducted a focus group with consumers of mental health services and community members in order to evaluate the interview's acceptability, relevance, and utility. Focus group participants provided valuable suggestions that were incorporated into the final version of the instrument.

In addition to the attention given to the interview, we spent considerable effort to select qualified interviewers. We ultimately enlisted 13 interviewers to participate in this study, all of whom were bilingual and bicultural and who came from the local community, and all of whom had experience working in mental health settings. In addition, they were all trained by members of the LMH Project Planning Council in a one-time 5-h workshop. Regular supervision was also provided by members of the LMH Project Council.

Results

Experiences with Symptoms of Mental Health Problems

In this sample, the majority of participants (n = 127, 78.4%) reported that they had experienced a mental health related problem at some point in their lives (see Table 1). The most commonly endorsed symptoms of the traditional DSM-IV diagnoses were those of depression (74.1%), generalized anxiety (57.4%), and post-traumatic stress disorder (38.3%). Fifty percent of the participants reported having lifetime experience with symptoms from more than two DSM-IV categories (Median = 2.5, Mode = 2, range 0–8). Much of the clustering occurred among the most commonly endorsed symptoms. For example, 65.4% of participants (n = 106) reported experiencing symptoms of depression and problematic substance or alcohol use at some points in their lives. Other categories that were highly endorsed in tandem included depression and generalized anxiety (60.5%, n = 98), generalized anxiety and substance/alcohol use (50.0%, n = 81), and depression and PTSD (37.0%, n = 60).

Men were significantly more likely than women to report having symptoms of alcohol abuse (29.4% vs. 3.6%; $\chi^2(1, N = 162) = 16.5, p < 0.0001$), and there was a trend for men to be more likely to report symptoms of drug abuse (27.5% vs. 13.5%; χ^2 $(1, N = 162) = 3.09$, $p < 0.10$).

Of the culture-bound syndromes and culture-specific expressions of emotional distress, the most commonly endorsed symptoms were of *decaimiento* (56.2%), *nervios* (50.6%), and *agitamiento* (40.7%; see Table 2). Among participants reporting lifetime experience with symptoms, 42.6% reported symptoms from more than two of these symptom clusters (Median = 2.0, range 0–10). The categories which were most commonly endorsed jointly included *nervios* and *decaimiento* (38.3%, n = 62), *agitamiento* and *nervios* (32.1%, n = 52), and *agitamiento* and *decaimiento* (27.8%, n = 45). There were no sex differences on any of the culture-bound syndromes.

A large majority of individuals also reported a lifetime experience of at least one symptom of both a DSM-IV diagnosis and one symptom of a culture-bound syndrome (77.8%, n = 126). The most commonly jointly endorsed symptoms were those of depression and *decaimiento* (53.1%, n = 86), problematic alcohol or drug use and *decaimiento* (50.6%, n = 82), and depression and *nervios* (47.5%, n = 77). See Table 3 for the frequency of the most commonly

Table 1 Symptoms of DSM-IV disorders

Symptom	% who endorsed symptom				Of those who endorsed, % who sought treatment			
	Overall (n = 162)	Women (n = 111)	Men (n = 51)	Chi-Square Statistic	Overall	Female	Male	Fisher's exact test
Depression	74.1% (n = 120)	74.8% (n = 83)	72.5% (n = 37)	0.01	24.2% (n = 29)	28.9% (n = 24)	13.5% (n = 5)	p = 0.11
Gen. Anxiety	57.4% (n = 93)	59.5% (n = 66)	52.9% (n = 27)	0.17	17.2% (n = 16)	19.7% (n = 13)	11.1% (n = 3)	p = 0.38
Panic attacks	27.2% (n = 44)	29.7% (n = 33)	21.6% (n = 11)	0.69	34.1% (n = 15)	45.5% (n = 15)	0.0% (n = 0)	p = 0.01
Agoraphobia	21.0% (n = 34)	21.6% (n = 24)	19.6% (n = 10)	0.06	29.4% (n = 10)	41.7% (n = 10)	0.0% (n = 0)	p = 0.02
OCD	16.7% (n = 27)	18.0% (n = 20)	13.7% (n = 7)	0.34	29.6% (n = 8)	40.0% (n = 8)	0.0% (n = 0)	p = 0.06
PTSD	38.3% (n = 62)	38.7% (n = 43)	37.3% (n = 19)	0.01	21.0% (n = 13)	27.9% (n = 12)	5.3% (n = 1)	p = 0.05
ETOH abuse	11.7% (n = 19)	3.6% (n = 4)	29.4% (n = 15)	16.54****	0.0% (n = 0)	0.0% (n = 0)	0.0% (n = 0)	p = 1.0
Drug abuse	17.9% (n = 29)	13.5% (n = 15)	27.5% (n = 14)	3.09$^+$	13.8% (n = 4)	26.7% (n = 4)	0.0% (n = 0)	p = 0.10

****$p < 0.0001$, *$p < 0.05$, $^+p < 0.10$

Table 2 Symptoms of culture-bound syndromes

Symptom	% who endorsed symptom				Of those who endorsed, % who sought treatment			
	Overall (n = 162)	Women (n = 111)	Men (n = 51)	Chi-Square Statistic	Overall	Female	Male	Fisher's exact test
Agitamiento	40.7% (n = 66)	44.1% (n = 49)	33.3% (n = 17)	0.07	22.7% (n = 15)	28.6% (n = 14)	5.8% (n = 1)	p = 0.09
Ataque de nervios	29.6% (n = 48)	30.6% (n = 34)	27.5% (n = 14)	0.09	33.3% (n = 16)	47.1% (n = 16)	0.0%(n = 0)	p = 0.01
Nervios	50.6% (n = 82)	50.0% (n = 55)	52.9% (n = 27)	0.05	45.1% (n = 37)	49.1% (n = 27)	37.0% (n = 10)	p = 0.35
Susto	24.7% (n = 40)	27.9% (n = 31)	17.6% (n = 9)	1.24	30.0% (n = 12)	35.5% (n = 11)	11.1% (n = 1)	p = 0.23
Espanto	15.4% (n = 25)	17.1% (n = 19)	11.8% (n = 6)	0.57	40.0% (n = 10)	52.6% (n = 10)	0.0% (n = 0)	p = 0.05
Bilis	8.6% (n = 14)	10.8% (n = 12)	3.9% (n = 2)	1.81	7.1% (n = 1)	8.3% (n = 1)	0.0% (n = 0)	p = 1.0
Cólera	23.4% (n = 38)	24.3% (n = 27)	21.6% (n = 11)	0.09	26.3% (n = 10)	37.0% (n = 10)	0.0% (n = 0)	p = 0.04
Decaimiento	56.2% (n = 91)	60.4% (n = 67)	47.1% (n = 24)	0.73	27.5% (n = 25)	32.8% (n = 22)	12.5% (n = 3)	p = 0.07
Pasmo	9.2% (n = 15)	10.8% (n = 12)	5.9% (n = 3)	0.85	33.3% (n = 5)	41.7% (n = 5)	0.0% (n = 0)	p = 0.50
Locura	6.2% (n = 10)	6.3% (n = 7)	5.8% (n = 3)	0.06	60.0% (n = 6)	85.7% (n = 6)	0.0% (n = 0)	p = 0.03
Mal de ojo	8.6% (n = 14)	8.1% (n = 9)	9.8% (n = 5)	0.00	21.4% (n = 3)	22.2% (n = 2)	20.0% (n = 1)	p = 1.0

jointly endorsed symptoms of DSM-IV diagnoses and culture-bound syndromes.

Accessing Mental Health Services

Of the 127 participants who identified a problem, 70 (55.1%) stated that they sought help for the problem, while 54 (42.5%) indicated that they did not seek help. Despite this relatively high rate of endorsed help-seeking, more careful examination revealed much lower rates of help-seeking for the most commonly-endorsed mental health problems. For example, help-seeking rates for depression were only 24.2%, anxiety was only 17.2%, and PTSD was 21.0%. Women were significantly more likely than men to report seeking help for symptoms of panic attacks (45.5% vs. 0.0%; p = 0.01, Fisher's exact test) and agoraphobia (41.7% vs. 0.0%; p = 0.02, Fisher's exact test). There were no sex differences in help-seeking rates for symptoms of the other traditional DSM-IV disorders.

Of the most commonly endorsed culture-bound syndromes and expressions of emotional distress, the most commonly reported reason for seeking help was *nervios* (45.1%), followed by *decaimiento* (27.5%), and *agitamiento* (22.7%). A few other culture-bound syndromes had higher rates of help-seeking (e.g., *espanto* and *locura*), but the number of participants who endorsed these syndromes was too low to allow for meaningful interpretation of the help-seeking rates. Women were significantly more likely than men to report seeking help for *ataque de nervios* (47.1% vs. 0.0%; $p < 0.01$, Fisher's exact test), *cólera* (37.0% vs. 0.0%; p = 0.04, Fisher's exact test), and *locura* (85.7% vs. 0.0%; p = 0.03, Fisher's exact test).

The most commonly endorsed mental health services that participants reported utilizing were outpatient psychotherapy (74.3%) and pharmacotherapy (70.0%). Rates of service use were considerably lower for day hospital programs (12.9%), inpatient programs (5.71%), and residential programs (12.9%). Participants also indicated some use of alternative mental health services, including priests and other traditional indigenous healers (24.2%).

Demographic Barriers to Seeking Mental Health Services

Results indicated that participants who had health insurance were significantly more likely to report having sought mental health services than participants who did not have health insurance (64.6% vs. 28.6%; χ^2 (1, N = 124) = 11.44, $p < 0.0001$). Participants who had

Table 3 Most commonly jointly endorsed symptoms

Symptoms of Culture-Bound Syndromes	Symptoms of DSM-IV disorders				
	Depression	Gen. Anxiety	Panic Disorder	PTSD	Any Substance Abuse*
Agitamiento	38.9% ($n = 63$)	34.6% ($n = 56$)	19.8% ($n = 32$)	25.9% ($n = 42$)	35.2% ($n = 57$)
Ataque de nervios	29.0% ($n = 47$)	26.5% ($n = 43$)	17.3% ($n = 28$)	19.8% ($n = 32$)	24.1% ($n = 39$)
Nervios	47.5% ($n = 77$)	41.4% ($n = 67$)	21.0% ($n = 34$)	27.8% (n = 45)	45.6% ($n = 74$)
Decaimiento	53.1% ($n = 86$)	44.4% ($n = 72$)	21.6% ($n = 35$)	29.0% ($n = 47$)	50.6% ($n = 82$)

* Reflects individuals who reported experiencing symptoms of alcohol abuse, drug abuse, or both

Medicaid/MassHealth insurance and those who had coverage under the Uncompensated Care Pool (i.e., ''free care'') were more likely to seek services (71.2% and 69.2%, respectively) than those who had private insurance (45.5%). In addition, participants who reported being unemployed were significantly more likely to report having sought services (65.2% vs. 45.5%, $\chi^2(1, N = 124) = 4.86, p < 0.05$).

There were also differences in accessing services among individuals from different ethnic groups. Approximately 66% of respondents from Puerto Rico and the mainland United States reported seeking services. In contrast, only 20% of respondents from Central and South American countries reported seeking services. When we compared individuals from Puerto Rico and the United States with individuals from all other countries, we found a significant difference (64.8% vs. 46.1%; χ^2 (1, $N = 123$) = 4.25, $p < 0.05$). Of note, English-speaking ability, sex, age, and educational background were unrelated to seeking services.

Reported Barriers to Seeking Mental Health Services

There were a variety of self-reported reasons for not seeking formal mental health services. Among the instrumental barriers, the most commonly endorsed reasons were ''I was too busy—didn't have the time'' (13.0%) and ''no transportation'' (13.0%). Few respondents endorsed ''I tried but couldn't get an appointment'' (3.7%) or ''I didn't want to because of a previous bad experience'' (3.7%) as reasons that prevented them from seeking mental health services. Among the attitudinal barriers, the most commonly endorsed reasons included ''thought I could handle it myself'' (51.9%), ''I didn't need it'' (29.6%), ''language/cultural barriers'' (25.9%), ''thought it was a waste of time'' (14.8%), and ''I was afraid because of my immigration status'' (9.3%). Of note, very few participants endorsed ''My family wouldn't approve'' (1.9%) as a barrier to seeking services.

Men were significantly more likely than women to endorse ''thought it was a waste of time'' as a reason for not seeking services (30.0% vs. 5.9%; $p = 0.04$, Fisher's exact test). There were no other sex differences with regards to reported barriers.

Many of the participants who did not seek mental health services reported managing their conditions with the help of friends and family (50.0%), praying (46.6%), and hoping for the best (46.3%). Others reported ignoring symptoms (24.1%), exercising (16.7%), consulting the clergy (9.3%), and attending self-help groups (5.6%).

Discussion

In this article, we describe the findings of the Latino Mental Health Project, a local needs assessment study conducted by a partnership of health, education, and other organizations in Worcester, Massachusetts. This study utilized a volunteer sample and so the findings should be interpreted cautiously. However, in many ways, the findings are consistent with those reported in other studies regarding help-seeking and barriers to help-seeking (e.g., Vega & Lopez, 2001; Wells et al., 2001). Moreover, several intriguing findings emerged that are worth noting.

First, we were struck by the numbers of individuals who endorsed problematic levels of mental health symptoms. In particular, we noted that 74% of the sample indicated having experienced significant depressive symptoms, and 57% indicated that they had experienced significant symptoms of anxiety. Moreover, significant numbers of participants in the study endorsed culture-bound syndromes and culture-specific expressions of emotional distress, with the most commonly endorsed syndromes being *decaimiento*, *nervios*, and *agitamiento*. Of particular interest were the high rates of individuals reporting a lifetime history of symptoms from both DSM-IV diagnoses and culture-bound syndromes. Some of the overlap may reflect similarities in the diagnostic categories themselves.

For example, the high rates of individuals reporting symptoms of depression and *decaimiento* is not surprising, given that some of the symptoms of *decaimiento* are the same as symptoms of depression (e.g., loss of energy, lack of interest). Some of the overlap may reflect a form of comorbidity. For example, 45.6% of the sample reported symptoms of substance use and experience with *nervios*. It was noteworthy that in a few instances, the rates of overlap were surprisingly low. For example, only 17.3% of individuals reported experiencing symptoms of panic disorder and *ataque de nervios*. This low rate lends credence to the emerging proposition that these two syndromes are in fact distinct from each other (Guarnaccia, Lewis-Fernández, & Marano, 2003).

Clearly, these figures should be interpreted with caution, since we did not use a validated clinical interview to assess the lifetime prevalence rates of the disorders (e.g., the Structured Clinical Interview for DSM-IV; First, Spitzer, Williams, & Gibbons, 1995). Also, the research literature on culture-bound syndromes is very limited, so the extent to which these syndromes overlap with existing DSM-IV categories is not known. Nevertheless, given that almost half of our sample was of Puerto Rican origin, these numbers are consistent with findings from other studies that have focused on Puerto Ricans and found high rates of mental health problems (Bassuk et al., 1998; Potter, Rogler, & Mościcki, 1995; Vera et al., 1991). For example, Potter et al. (1995) reported that 27.8% of Puerto Ricans in their study would have met criteria for a current case of depression, a rate that is substantially higher than that reported in the general population and among Latinos from other countries of origin (Vega & Lopez, 2001). The variability in prevalence of mental health problems across Latino groups is only beginning to receive attention, and so more research is clearly needed that can begin to investigate possible reasons for such high numbers of individuals reporting significant levels of symptoms.

Second, the overall help-seeking rate of 55.1% in this study was higher than the 28.1% reported by Vega et al. (1999). There are likely many reasons for this difference, but one important one may be found in the different sampling strategies utilized by the two studies. Vega et al. (1999) used a probabilistic sampling design that took demographic census patterns into consideration, while in this study we recruited participants primarily through advertising and word-of-mouth. Nevertheless, despite the higher help-seeking rates we found, it is important to note that considerable variability existed in help-seeking rates depending on the symptoms endorsed. For example, while treatment-seeking rates for panic attacks was relatively high (about 34%), treatment-seeking rates for alcohol and drug abuse were particularly low (under 15%). It is unclear to what to attribute this variability in help-seeking rates. Some authors have speculated that there may be variability in the extent to which mental disorders are stigmatizing (Magovcevic & Addis, 2005). Perhaps for the participants in our sample, symptoms of alcohol and drug abuse are particularly stigmatizing and thus less likely to lead individuals to seek treatment. Clearly, more research is needed to elucidate these findings.

Not surprisingly, we found that participants were most likely to endorse using outpatient psychotherapy and pharmacotherapy, a finding consistent with some other recent research with low-income Latinos (Dwight-Johnson, Lagomasino, Aisenberg, & Hay, 2004). Of note was the fact that while some participants endorsed seeking services from alternative mental health services (e.g., priests and other traditional indigenous healers), considerably more participants endorsed the use of formal mental health services. This finding has been reported by others (e.g., Miranda et al., 1996) and suggests that Latino healthcare disparities cannot simply be explained through the use of alternative health services.

Third, although we found no overall sex differences in help-seeking rates, differences between men and women did emerge when we examined help-seeking associated with specific disorders. In particular, a consistent pattern emerged indicating that men were less likely than women to report the use of mental health services for anxiety disorders. In addition, despite the fact that men were significantly more likely than women to report having experienced alcohol and substance use problems, they were not more likely to seek services. These findings highlight the importance of examining service utilization on a disorder-specific basis. In addition, given that other researchers have found different predictors of service utilization use between men and women (Albizu-Garcia, Alegría, Freeman, & Vera, 2001), efforts to address mental health care disparities would do well to consider the extent to which gender differences might be relevant.

Fourth, we found a pattern whereby individuals from Central and South American countries were less likely to report having sought mental health services. It is possible that these findings reflect a general difference in familiarity with the mental health system, as individuals who identified Puerto Rico and the US as their countries of origin may have more experience navigating the U.S. health care system. Another possible explanation might be an elevated concern

regarding lack of appropriate residency documentation, a concern that would not be relevant to individuals from Puerto Rico, because they are US citizens. Irrespective of the reason, this finding adds to the growing literature highlighting the heterogeneity that exists within the Latino population (e.g., Kuo et al., 2004).

Fifth, with regard to specific barriers, one interesting finding was the fact that very few participants indicated that family disapproval was a barrier to seeking services. This finding runs contrary to the general sense that traditional Latino families generally do not approve of mental health services, choosing instead to handle problems privately (e.g., Purdy & Arguello, 1992). Rather, this finding suggests that health care providers may find that family members can be a source of strength and support for many Latinos who are experiencing mental health problems.

Limitations and Strengths

The results from this study should be interpreted with caution for several important reasons. As noted previously, our needs assessment interview did not include a validated clinical interview to assess the lifetime prevalence rates of the disorders. Moreover, our sample consisted entirely of individuals who volunteered, and thus, the sampling biases are unknown. Together, these design characteristics likely contributed to higher prevalence estimates of both symptoms and help-seeking behavior than are likely found in the general Latino population of Worcester.

Despite these limitations, this study has several notable strengths, including focusing on culture-bound syndromes in addition to symptoms from DSM-IV diagnoses, gathering information about multiple service areas, and being a truly community-led collaborative research project. In support of this last point, the findings from this study have already produced many positive results in the local Worcester community. Following the completion of the needs assessment study, the LMH Project Planning Council conducted a series of workshops and trainings that targeted both mental health care providers and community members, with the goal of increasing awareness and providing information regarding mental health, treatment services, and disparities in health care access. For example, some of the workshops targeted at mental health care providers have focused on educating providers regarding how to take culture into consideration when delivering mental health care services.

In addition, the LMH Project Planning Council created a full report for MDMH (Adams et al., 2005) that has been used in two specific ways. First, the report provided MDMH with a framework for the planning of culturally and linguistically effective mental health services within the larger goal of developing a unified behavioral health system. Second, the report provided a model for the development of needs assessments to be conducted with different racial/ethnic groups across the state.

Future Directions

The dynamic and productive collaborative partnership of the LMH Project Planning Council members who come from various health, mental health, social services, educational, and faith-based institutions, as well as community partners, remains active. The Project Planning Council is committed to seeking additional funding to build upon the lessons learned from this research, to continue to expand our knowledge base, and to carry on provider and community education initiatives.

In sum, this project has provided some interesting and important information regarding the mental health care needs of the Latino population in Worcester, Massachusetts. We are hopeful that the findings from this study will continue to inform the progress that the mental health community in Worcester is already making to address the mental health needs of Latinos. Overall, we believe that needs assessment research conducted by community collaborative partnerships can play an important role in reducing the racial and ethnic health care disparities that exist in the US, as more and more communities begin to address health care disparities at a local level.

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Appendix A Glossary of Culturally-Relevant Terms

Culture-Bound Syndromes as described in the DSM-IV (1994)

Nervios (‘‘nerves’’): Very common idiom of distress used among Latinos in the US and Latin America. It refers to feeling vulnerable to stressful life experiences, usually brought on by difficult life circumstances. Symptoms include headaches, inability to perform activities of daily living, irritability, stomach problems,

sleep difficulties, nervousness, inability to concentrate, dizziness, tingling sensations, and crying spells.

Ataque de Nervios (''attacks of nerves,'' ''nervous attacks''): Idiom of distress mainly reported among Latinos from the Caribbean, although it is common among other Latin American and Latin Mediterranean groups. It is purportedly manifested by uncontrollable crying, trembling, experience of heat in the chest rising to the head, verbal and/or physical aggression, shouting, fainting spells, and seizure-like episodes. In some rare cases, suicidal gestures may be present. The person has a sense of ''being out of control.'' It appears to occur following a family-related stressful event (e.g., death in the family, conflict with spouse or children, traumatic events in the family).

Mal de Ojo (''evil eye''): A belief that someone has been cursed by another. In children it can be manifested by fitful sleep, crying without apparent cause, diarrhea, vomiting, and fever. In some cultures, it is believed to also possibly affect adults, especially women.

Bilis and *Colera*: Idioms of distress caused by strong feelings of anger or rage. Anger is believed to disturb certain core body balances (e.g., hot and cold balance, balance between material and spiritual aspects of the body). Symptoms include acute nervous tension, headaches, trembling, screaming, gastrointestinal and stomach problems, and in extreme cases, loss of consciousness.

Locura: This term refers to a severe form of chronic psychosis. It is thought to be the result of an inherited vulnerability, the effect of multiple life stressors, or to a combination of both. It is manifested by incoherence, agitation, auditory and/or visual hallucinations, an inability to follow rules of social interaction, unpredictable behavior, and risk of violent behavior.

Susto, Espanto, Pasmo, Tripa Ida, Pérdida del Alma (''fright'' or ''soul loss''): These terms are similar and are used to explain the result of a fear so pronounced that one's soul has left one's body, resulting in unhappiness and sickness. Symptoms include appetite disturbance, inadequate or excessive sleep, vivid dreams, sadness, lack of motivation, and feeling of low self-worth. Somatic symptoms include muscle aches and pains, headache, stomach problems, diarrhea.

Additional terms defined by community members participating in the focus group:

Agitamiento: This term is commonly used to describe intense anxiety, nervousness, inability to sit down, sleeplessness, restlessness, and sweaty palms.

Decaimiento: This term is commonly used to describe loss of energy, lack of interest, body weakness.

Brujería: This term is commonly used to explain psychotic symptoms caused by hexing, witchcraft, or the influence of people who are believed to have the ability to perform supernatural acts.

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