Pharmacotherapy for Depression and Medical Service Use:

A Comparison between Latinos and Non-Hispanic Whites

J. Lee Westmaas*
Department of Psychology
State University of New York, Stony Brook
Stony Brook, New York 11794-2500
Tel: 631-632-7842
Fax: 621-632-7842
E-mail: Johann.Westmaas@sunysb.edu

And

Johanna Shapiro
Department of Family Medicine
University of California, Irvine
101 City Drive South, Rte 81, Bldg. 200, Suite 512
Orange, CA 92868 - 3298
Jfshapir@uci.edu

*Corresponding Author

Abstract

Because of observed ethnic differences in utilization of urgent versus regular medical care facilities among depressed patients at a federally qualified community health clinic, we examined whether pharmacotherapy for depression would predict different patterns of utilization, as a function of ethnicity. From a retrospective examination of medical records for 82 Latino and 63 Non-Hispanic White depressed patients, we compared utilization rates for regular medical and urgent care treatment for medicated and non-medicated patients. Results indicated that pharmacotherapy was associated with fewer urgent care visits by Latino patients and a greater number of visits for regular care (i.e., non-urgent care). In contrast, among Non-Hispanic Whites, there was no difference in visits for emergency treatment as a function of pharmacotherapy, but medication was associated with fewer regular medical visits. Pharmacotherapy was also associated with similar levels of regular clinic utilization between Latino and Non-Hispanic White patients. It appears that pharmacotherapy may be advantageous in effecting utilization patterns that result in better and less costly treatment for indigent Latino patients in a community clinic setting. Results also suggest that medication may ameliorate depressive symptoms for both groups and lead to a similar frequency of regular medical care seeking from Latino and Non-Hispanic White patients.

DEPRESSION, ETHNICITY, HEALTH CARE UTILIZATION, PHARMACOTHERAPY

Introduction

Studies have found that ethnic/racial groups such as African-Americans and Latinos underutilize medical services,[1 2 3 4] even when socioeconomic status, insurance coverage or service availability are controlled.[5] Cultural barriers have been advanced to explain low levels of treatment-seeking for health problems, particularly among Hispanic groups; these barriers include cultural insensitivity or prejudices by health care providers, communication difficulties, and reliance on other modes of treatment such as folk medicine.[6 7 8] Undoubtedly, however, lack of health insurance coverage among ethnic minorities[9 10 11] as well as greater poverty rates[12] contribute to underutilization of medical services. In addition, illegal residency in some Mexican-American communities mitigates against the seeking of regular medical care.

Such barriers may also explain a greater reliance for care from hospital outpatient departments and emergency rooms among economically disadvantaged ethnic minorities.[10] Previous studies have shown a tendency among some members of the urban poor to favor such loci of treatment over visits to doctor's offices.[13 14 15] Unfortunately, greater reliance on these modes of treatment provides less than optimal access to physicians, detracts from the timely treatment of medical problems, and inhibits continuity of care.[16] Moreover, use of hospital emergency and outpatient departments increases the costs of medical care[14 17] at a time of growing fiscal constraints on the health care system.

In the present study, we examined whether pharmacological treatment for depression at a primary care federally qualified community health clinic, where the majority of patients are indigent Latinos (largely of Mexican origin) and Non-Hispanic Whites, would be associated with different patterns of health service use, as a function of ethnicity. We chose to study depressed individuals for the following reasons: 1) As in similar primary care clinics, depression was one

of the most common psychiatric diagnoses made at the clinic, 2) There is a documented relationship between untreated depression and overutilization of primary health care services, and 3) There is also strong documented evidence for the effectiveness of pharmacotherapy in the treatment of depressive symptomatology.[18]

Most of the Latino patients seen at the community clinic were indigent and/or undocumented residents with a tendency to delay seeking treatment until symptoms were so severe that they turned to urgent care for relief. To the extent that pharmacotherapy provides relief of symptoms, we hypothesized that effective drug treatment of depression might increase Latino patients' belief in the value of medical treatment at the clinic, and thus provide a more favorable context for subsequent seeking of regular medical care. Thus pharmacotherapy, by alleviating symptoms, might reduce the tendency among Latino attendees with depression to rely on urgent care and predict greater use of the regular medical clinic.

In contrast with recent Latino immigrants, Non-Hispanic Whites do not experience the same barriers that dictate patterns of treatment seeking among Mexican patients (e.g., residency status, folk beliefs in medicine etc.). In addition, they are generally more familiar with how the American health care system operates and thus can access regular care more easily. Previous research suggests that in primary care settings, when depression is treated effectively, clinic utilization decreases,[19] possibly because patients previously were seeking care for somatization symptoms related to depression. Among Non-Hispanic Whites, therefore, we expected effective pharmacological treatment of depression to be associated with decreased use of regular medical treatment, but to be unrelated to urgent care utilization.

Because the present study was retrospective and based on a careful chart review of patients who attended a community clinic, we examined our hypotheses by comparing medicated

and non-medicated Latino and Non-Hispanic White patients on their seeking of urgent care and regular medical treatment. Non-medicated patients were not denied treatment but rather declined medication for a variety of reasons. They thus provided a naturally-occurring comparison group with which we could examine our hypotheses.

Our hypotheses were:

1. Among non-medicated patients, Latino patients will show a pattern of underutilization of the regular medical clinic compared to Non-Hispanic Whites, but greater utilization of the urgent care facilities at the clinic.
2. Among Latino patients, those receiving medication will exhibit a greater frequency of regular medical care visits and a lower frequency of urgent care visits, compared to those not receiving medication.
3. Among Non-Hispanic White patients, those receiving medication will exhibit a lower frequency of regular medical care visits compared to those not receiving medication, but for urgent care visits, there will be no difference between medicated and non-medicated patients who are Non-Hispanic White.

Methods

Participants

Of the 145 participants for whom data were collected, 82 (32%) were Mexican, and 63 (24%) were Non-Hispanic White patients. Twenty-nine (20%) participants were male and 116 (80%) were female. Twenty-six participants (18%) were married and the remainder (119) were either separated, divorced, widowed, or single.

Procedure

Patients who first visited a federally qualified community clinic in Southern California after July, 1995 (whether for regular medical or urgent care treatment) and made their last visit before June, 1998 were identified from computer records. For the majority of patients, the last clinic visit occurred approximately 16 months after the first. We assumed that the absence of a subsequent visit between the last recorded visit (before June 1998) and the time of the chart review (conducted one and half years later in January 2000) indicated that patients were no longer visiting the clinic for treatment. In addition, dates of the first and last visit to the clinic were recorded for each patient so that unequal lengths of follow-up could be controlled in data analyses.

The clinic was staffed by family medicine residents under supervision of a senior clinical psychologist. Patients with primary and secondary diagnoses of depression according to ICD-9-CM were selected for inclusion in the study. A research assistant examined all computer-generated patients' charts that met these criteria and recorded ethnicity, age, marital status, gender, medication prescribed (if any), diagnoses, the total number of regular medical and urgent care visits to the clinics, and frequency of attendance at supplementary sessions providing supportive psychosocial contact. While all patients selected for the study had been clinically diagnosed with depression, not all of these patients were given prescription medication. Some patients declined medication, possibly due to an inability to pay, a dislike of pill-taking, and/or a preference for the supplementary psychosocial contact that was also provided at the clinic. Also, resident-physicians had discretion regarding whether or not to recommend pharmacotherapy. Such a decision was based on a number of factors, including severity of symptoms and patient preference. As discussed later, however, lowered symptom severity among unmedicated patients

could not reasonably explain the pattern of results reported below. Additionally, because some patients from both the medicated and unmedicated groups chose to participate in supplementary psychosocial contact, the number of these visits was used as a control variable in analyses.

Analytic Procedures

ANCOVAs were conducted to evaluate main and interactive of effects of medication and ethnicity on frequency of regular medical and urgent care visits. Dichotomous variables were constructed to indicate whether or not patients were prescribed anti-depressant medication, and whether patients were Latino or Non-Hispanic White. Analyses controlled for age, gender and marital status (married vs. unmarried) because of significant associations between these variables and ethnicity and medication status. We also controlled for the number of supplementary psychosocial contacts. To control for unequal follow-up times, we included the length of time between the first and last visit as a covariate in the model. Because comorbidity of one or more psychological disorders other than depression was not different between Latino and Non-Hispanic Whites, and did not differ as a function of medication status, it was excluded from the final model.

Results

Patients ranged in age from 15 to 81 with a mean age of 43 (SD = 13). The median number of months between patients' first and last ever visit to the clinic (whether for medical reasons or for supplementary psychosocial contact) was 11. The mean number of regular medical visits was 9 (SD = 10). The number of urgent care visits ranged from 0 to 8, with a mean of .8 (SD = 1.4). Approximately one-third of the sample (52 patients; 36%) were on anti-depressant medication.

Regular Medical Care Visits

Results for the first ANCOVA showed a significant interactive effect between ethnicity and medication status [$F(3,145) = 3.35$, $p < .02$] in predicting subsequent regular medical care visits. One-tailed t-tests demonstrated, as predicted, that among unmedicated individuals, Latino patients visited the clinic significantly less often for regular medical treatment (Figure 1) compared to Non-Hispanic Whites ($t = 2.98$, $p < .002$). In addition, among Latino patients, those receiving medication made more regular medical care visits ($t = 1.66$, $p < .05$) compared to those who did not receive medication. In contrast, among Non-Hispanic Whites, those receiving medication made fewer regular medical visits patients compared to those who did not ($t = 1.94$, $p < .03$).

Urgent Medical Care Visits

The second ANCOVA also revealed a significant ethnicity by medication interaction [$F(3,145) = 2.60$, $p < .05$] for number of urgent care visits (Figure 2). One-tailed t-tests demonstrated, as predicted, that among unmedicated individuals, Latino patients made significantly more urgent care visits ($t = -1.59$, $p < .05$) compared to Non-Hispanic Whites. In addition, among Latino patients, urgent care visits were significantly lower among medicated as compared to unmedicated patients ($t = -2.09$, $p < .02$). As predicted, the frequency of urgent care visits did not differ significantly among Non-Hispanic Whites who received pharmacotherapy compared to those who did not ($t = -.42$, $p < .34$).

Discussion

This archival study examined the medical records of 145 individuals to determine whether providing pharmacotherapy for depression would be associated with different utilization patterns among an ethnic minority patient population in a manner that would suggest continuity

of care. Potential confounding factors such as age, gender, and marital status were controlled for in all analyses. Thus results cannot be attributed to the effects of these factors on utilization. Comorbid medical illness was also ruled out as a possible explanatory factor. Previous studies have shown that minority groups tend to use health services less often than Whites,[1 2 3 4] but how use of regular medical or urgent care services is related to pharmacotherapy for depression in ethnic groups has not been studied. Because prior research has suggested positive effects of pharmacotherapy in alleviating depressive symptomatology and in reducing utilization,[3 20 21] we hypothesized that pharmacotherapy for depression would be associated with beneficial outcomes regarding service use. After considering cultural and other barriers to service use among Latino patients, however, we posited that the relationship between medication and service use would differ between these patients and Non-Hispanic Whites. Our results suggest that pharmacotherapy for depression may produce equivalent levels of treatment seeking (both regular medical and urgent care) between Latino and Non-Hispanic White patients.

In addition, in comparing medicated and non-medicated patients, pharmacotherapy was associated with greater regular medical service use among Latino patients, and less use of urgent care as a mode of treatment. Among Non-Hispanic Whites, there was no difference in urgent care visits between medicated and unmedicated patients, and medication was associated with fewer regular medical treatment visits. The fact that among Non-Hispanic White patients those on medication made fewer regular medical visits compared to non-medicated patients, and that the opposite was found for Latino patients, suggests that ethnic factors, or factors related to ethnicity, were associated with utilization of the clinic.

Our findings are consistent with past studies demonstrating underutilization of "regular care" services by ethnic minority groups. In addition to socioeconomic and residency status

concerns, cultural factors such as the social stigma associated with psychiatric illness among Latino groups[13] may contribute to reduced levels of seeking regular medical treatment. The operation of these factors among Latino patients in this sample might explain their reluctance to seek regular medical treatment for their depressive symptoms and may have delayed their visit to the clinic until increased symptom severity led to seeking urgent care treatment. Our own observations confirm that at this clinic, untreated depressed Latino patients showed a somewhat greater tendency to use episodic, superficial care rather than in-depth continuity care.

Urgent care is not considered an optimal or sufficient mode of primary health care[16] and is particularly problematic when considering the treatment of a recurrent, potentially life-threatening condition such as depression. In the urgent care setting, it is unlikely that patients' depression would receive adequate treatment. Thus evidence that pharmacotherapy was associated with lower levels of this mode of care-seeking among Latino patients, and with greater use of regular medical treatment may be a substantial positive benefit of pharmacotherapy. It may be the case that alleviation of symptoms induced by depressive medication caused Latino patients to develop a more favorable view of their treatment and perhaps greater trust of their physicians.

In contrast to Latino patients, among Non-Hispanic Whites, medication was associated with fewer regular medical service visits, but there was no difference in urgent care service use as a function of medication. These findings are consistent with the hypothesis that if depression is causally related to service use, then treatment for depression should lead to reduced service use. For these Non-Hispanic Whites, medication may have ameliorated depressive symptoms, thereby reducing the need to seek subsequent medical treatment.

Taken together, these findings might be interpreted as suggesting that ethnicity and the regulation of psychiatric disease through the use of medication may interact to create differential utilization patterns. Among Latino patients, regulation of depressive symptoms may act to alter a tendency toward reliance on episodic, urgent care and lead to the establishment of more regular, continuity health-seeking practices. For Whites who are not confronted with the constellation of barriers experienced by many Latinos, reduction of depressive symptoms may have led to their reduced levels of regular medical care seeking. This interpretation may be generalizeable only to the type of community clinic we examined, where the vast majority of patients fell 200% below the federal poverty line. In addition, even if our interpretation of the results is not entirely accurate, the fact that we obtained interaction effects between ethnicity and medication status suggest that ethnic factors play some role in the results obtained. We believe that more research should be devoted to identifying such factors so that patients of all ethnicities receive an optimal level of care in the community health clinic setting.

The present study cannot assume a causal role for pharmacotherapy in changing utilization patterns of the depressed ethnic groups we studied, although other variables that might have accounted for the pattern of findings were controlled for in analyses (e.g., gender, marital status and age).

The findings of the present study provide justification for conducting larger-scale, prospective studies that examine relationships between pharmacotherapy and changes in utilization patterns at community clinics among different immigrant and refugee groups. Such studies should also include measures that assess potential mediators of the relationship between pharmacotherapy and utilization (e.g., beliefs in the efficacy of medical treatment).

Conclusion

The present study provided evidence that pharmacotherapy for depression at a federally qualified community health clinic was associated with utilization patterns of indigent Latino patients in a manner that suggested better continuity of care. Pharmacotherapy also appeared to "even out" regular medical and urgent care service use between Latino and Non-Hispanic White patients. We assumed that amelioration of symptoms as a result of pharmacotherapy, and enhanced perceptions of the efficacy of regular medical care for depression, were responsible for the patterns of service use observed among Latino patients. We hope that these findings will serve to stimulate interest and research in possible factors that mediate the relationship between pharmacotherapy and service use among members of ethnic minorities who depend on community health clinics for treatment.

Reference

[1] Leaf PJ, Bruce ML, Tischler GL, Freeman DH, Weissman MM, Myers JK. Factors affecting the utilization of specialty and general medical mental health services. Medical Care 1988;26.

[2] Robins LN, Regier DA, Eds. Psychiatric Disorders in America: The Epidemiologic Catchment Area Study. New York, NY: Free Press; 1991.

[3] Solis JM, Marks G, Garcia M, et al. Acculturation, access to care, and use of preventive services by Hispanics: findings from HHANES 1982-84. Am J Public Health 1990;80(Supplement):11.

[4] Access to Health Care in the United States: Results of a 1986 Survey, Special Report No. 2. Princeton, NJ: The Rogert Wood Johnson Foundation, 1986.

[5] Padgett DK, Patrick C, Burns BJ, Schlesinger HJ. Ethnicity and the use of outpatient mental health services in a national insured population. Am J Public Health 1994;84:222.

[6] Woodward AM, Dwinell AD, Arons BS. Barriers to mental health care for Hispanic Americans: A literature review. J Mental Health Admin 1992;19:224.

[7] Fishman BM, Bobo L, Kosub K, Womeodu RJ. Cultural issues in serving minority populations: Emphasis on Mexican Americans and African Americans. Am J Med Sci 1993;306:160.

[8] Ruiz P. Assessing, diagnosing, and treating culturally diverse individuals: A Hispanic perspective. Psychiatr Q 1995;66:329.

[9] Aguilera E. Hispanics and health insurance, Vol. I. Status. National Council of La Raza and Labor Council for Latin American Advancement, Washington, DC, 1992.

[10] Giachello ALM. Issues of access and use. In: Molina CV, Aguirre-Molina M. Latino Health in the U.S.: A Growing Challenge. Washington, DC: American Public Health Association; 1994:83.

[11] U.S. General Accounting Office. Hispanic Access to Health Care: Significant Gaps Exist. Washington, DC: 1992.

[12] Mendoza FS. The health of Latino children in the United States. The Future of Children 1994;4:43.

[13] Kasper JD. The importance of type of usual source of care for children's physician access and expenditures. Med Care 1987;25:387.

[14] Farley P, Cafferata GL, Berk M. Outpatient use of hospitals by the poor and uninsured. Presented at the annual meetings of the American Public Health Association Meetings, Washington, DC, 1985.

[15] Muller C. Review of twenty years of research on medical care utilization. Health Serv Res 1986;21:129.

[16] Lion J, Friedman RH, Henderson MG, et al. A comparison of hospital outpatient departments and private practices. Health Care Financing Review 1985;6:69.

[17] Feder J, Hadley J, Mullner R. Falling through the cracks: poverty, insurance coverage, and hospital care for the poor, 1980 and 1982. Milbank Q 1984;62:279.

[18] Schulberg HC, Block MR, Madonia MJ, et al. Treating major depression in primary care. Arch Gen Psychiatry 1996;53:913.

[19] Miranda J, Munoz R. Intervention for minor depression in primary care patients. Psychosom Med 1994;56:136-142.

[20] Katzelnick DJ, Kobak KA, Greist JH, Jefferson JW, Henk HJ. Effect of primary care treatment of depression on service use by patients with high medical expenditures. Psychiatric Serv 1997;48:59.

[21] Revicki DA, Simon GE, Chan K, Katon W, Heiligenstein J. Depression, health-related quality of life, and medical cost outcomes of receiving recommended levels of antidepressant treatment. J Fam Pract 1998;47:446.

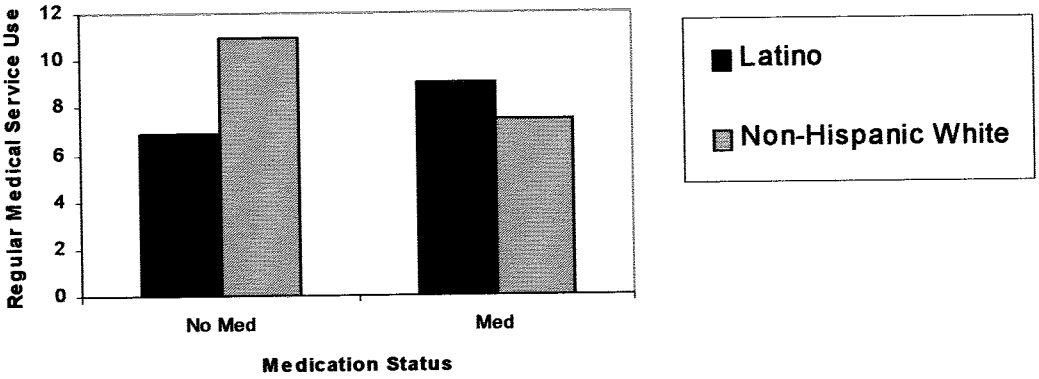
Acknowledgements

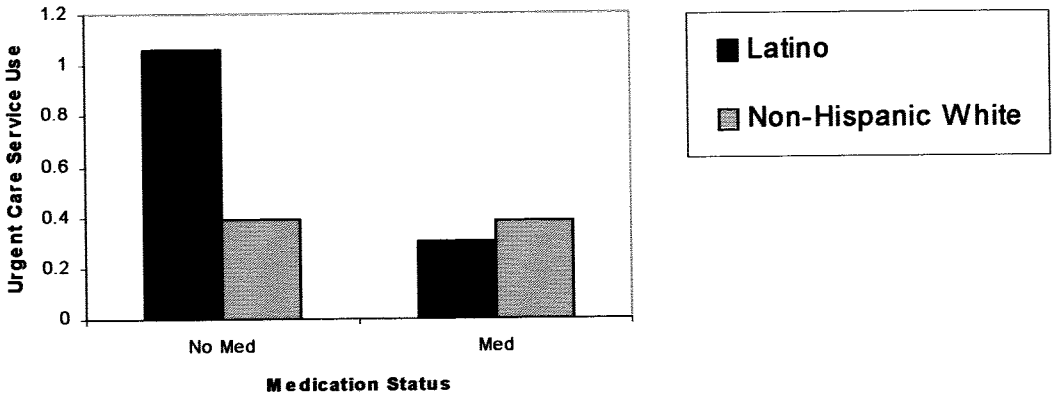
J. Lee Westmaas is now at the Department of Psychology, State University of New York, Stony Brook, New York. The authors wish to thank Quy Luong and Danielle Harris for their assistance in data collection. Correspondence regarding the manuscript may be addressed to J. Lee Westmaas, Department of Psychology, State University of New York, Stony Brook, New York 11794-2500. Electronic mail may be sent via Internet to Johann.Westmaas@sunysb.edu.

Figure Legends

Figure 1. Relationship between medication and regular medical service use as a function of ethnicity. Group sizes for unmedicated Mexican and Non-Hispanic White are 47 and 46, respectively. Group sizes for medicated Mexican, and Non-Hispanic White are 35 and 17, respectively.

Figure 2. Relationship between medication and urgent care service use as a function of ethnicity. Group sizes for unmedicated Mexican and Non-Hispanic White are 47 and 46, respectively. Group sizes for medicated Mexican, and Non-Hispanic White are 35 and 17, respectively.


Regular Medical Service Use
12
10
8
6
4
2
0
No Med
Med
Medication Status
Latino
Non-Hispanic White


1.2
1
0.8
0.6
0.4
0.2
0
Urgent Care Service Use
No Med
Med
Medication Status
Latino
Non-Hispanic White