NIH Public Access

Author Manuscript

J Am Geriatr Soc. Author manuscript; available in PMC 2012 January 3.

Published in final edited form as:

J Am Geriatr Soc. 2011 January ; 59(1): 50–56. doi:10.1111/j.1532-5415.2010.03220.x.

Utilization of Mental Health Care by Community-Dwelling Older Adults

Melissa M. Garrido, PhD,

GRECC, James J Peters VA Medical Center, Bronx, NY. Dept of Geriatrics & Palliative Medicine, Mount Sinai School of Medicine, New York, NY. Institute for Health, Health Care Policy & Aging Research, Rutgers University, New Brunswick, NJ

Robert L. Kane, MD,

Division of Health Policy & Management, University of Minnesota – Twin Cities

Merrie Kaas, DNSc, RN, and

Corresponding Author: Melissa M. Garrido, PhD, GRECC, James J Peters VA Medical Center, 130 West Kingsbridge Road, Bronx, NY 10468 (melissa.garrido@mssm.edu). Phone: 718-584-9000 ext. 3804; Fax: 718-741-4211. Alternate Corresponding Author: Robert L. Kane, MD, Division of Health Policy & Management, University of Minnesota – Twin Cities, 420 Delaware Street SE, MMC 729, Minneapolis, MN 55455 (kanex001@umn.edu). Phone: 612-624-1185; Fax: 612-624-2196.

Portions of this work were presented at the 2009 Annual Meeting of AcademyHealth.

Conflict of Interest Disclosures:

Elements of Financial/Personal Conflicts	* Author 1 MMG		Author 2 RLK		Author 3 MK		Author 4 RAK	
	Yes	No	Yes	No	Yes	No	Yes	No
Employment or Affiliation		x		x		x		x
Grants/Funds		x		x		x		x
Honoraria		x		x		x		x
Speaker Forum		x		x		x		x
Consultant		x	x			x		x
Stocks		x		x		x		x
Royalties		x		x		x		x
Expert Testimony		x		x		x		x
Board Member		x		x		x		x
Patents		x		x		x		x
Personal Relationship		x		x		x		x

* Authors can be listed by abbreviations of their names.

For “yes” x mark(s): give brief explanation below:

RLK: I consult for United Healthgroup, SCAN Health Plan, Medtronic, Lewin and Associates, Cleveland Clinic

Author Contributions: Dr. Garrido had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study Concept and Design: Garrido, RL Kane, Kaas, RA Kane

Acquisition of Data: Garrido

Analysis and Interpretation of Data: Garrido, RL Kane, Kaas, RA Kane

Preparation of the Manuscript: Garrido, RL Kane, Kaas, RA Kane

Sponsor’s Role: Neither sponsor had any role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; or preparation, review, or approval of the manuscript.

School of Nursing, University of Minnesota – Twin Cities

Rosalie A. Kane, PhD

Division of Health Policy & Management, University of Minnesota – Twin Cities

Abstract

Objective—Older adults tend to underutilize mental health care (MHC). The objective of this study was to examine relationships among perceived need for care, illness characteristics, attitudes toward care, and probability of MHC utilization by older adults.

Design, Setting, and Participants—1,681 community-dwelling adults ≥ 65 from the Collaborative Psychiatric Epidemiology Surveys (2001–2003).

Measurements—Self-reported MHC use and perceived need for care in the past 12 months, past-year and history of mental illness, physical illness, attitudes toward care, and sociodemographics.

Results—Of the entire sample, 6.5% received some type of MHC in the past year, although 65.9% of those with major depressive disorder (MDD) and 72.5% with anxiety did not receive MHC. Among respondents with past-year depression or anxiety, utilization was less likely for those with low World Health Organization Disability Assessment Scale (WHO-DAS) self-care ability. Utilization was more likely for those with more chronic physical conditions and worse WHO-DAS cognitive capacity. Of those with perceived need for MHC, 17% did not receive it. Among respondents with perceived need, subthreshold generalized anxiety disorder was associated with lower likelihood of utilization. Utilization was more likely for older respondents, those with more household members, at least a high school education, and better self-care ability. 41% of those who perceived a need for care but did not use it met past-year diagnostic criteria for anxiety and 17% met criteria for MDD.

Conclusions—Understanding the perceptions that underlie individuals' health care-seeking behavior is an important step toward reducing underutilization of MHC by older adults.

Keywords

Perceived need; mental health care; attitudes; depression; anxiety

Introduction

Older adults experience symptoms, diagnosis, and treatment of mental illnesses differently from younger people, and they are less likely to use mental health care (MHC) than younger adults with mental illnesses. Many older adults feel they should keep symptoms of depression to themselves; some also believe that depression is a normal part of aging.^{1–2} If they do seek help for their condition, it is more likely to be delivered by a primary care practitioner (PCP) than a mental health specialist.^{3–4}

Depression and anxiety often co-occur with physical illnesses such as heart disease and diabetes in older adults, and this can lead to lower health-related quality of life and increased costs from greater health service utilization.^{5–12} Addressing barriers to utilization helps reduce unmet need for mental health care (MHC), which might improve outcomes and reduce costs for both physical health care and mental health care.¹³

Little attention has been paid to determinants of recent MHC utilization in older adults other than current symptomatology of the older person and the characteristics of the health care system. Perceptions of need for care, attitudes toward care, and mental illness history are largely ignored. When attitudes toward care are measured in older adults, they are rarely

examined at the same time as utilization patterns.¹⁴ History of mental and physical illness, as well as severity of current mental illness, are associated with greater perceived need for care.^{15–16} Past-year diagnoses appear to be related directly to perceived need and only indirectly to utilization,¹⁷ but the differential impact of subclinical mental illness and history of illness on perceived need versus MHC utilization is unclear. An understanding of how older adults evaluate their mental health status and treatment options may help health care providers communicate more effectively with their patients and reduce attitudinal barriers to MHC.

In this study, we examine how perceptions of need for MHC, current mental illness, history of mental illness, physical illness, alcohol abuse/dependence, and attitudes toward care are related to probability and delay of MHC utilization among older adults.

Methods

Data from the Collaborative Psychiatric Epidemiology Surveys (CPES), a public dataset collected between 2001 and 2003, are the most recent data addressing MHC utilization patterns among older community-dwelling adults in the United States. Further details about the CPES are available elsewhere,^{18–19} but briefly, it includes data from three in-person surveys about mental health: the National Comorbidity Survey Replication (NCS-R), the National Survey of American Life (NSAL), and the National Latino and Asian American Study (NLAAS). Respondents were randomly selected through sampling of Metropolitan Statistical Areas (MSAs) and counties, segments within these primary areas, households, and one or two respondents per household.¹⁸ The data are weighted to account for different probabilities of selection into the sample as well as for oversampling of racial/ethnic minorities. While the surveys include adults of all ages, this analysis considered only adults 65 years of age or older ($N = 2,626$). After excluding NCS-R respondents who responded to an abbreviated version of the survey and NLAAS respondents for whom complete diagnostic information was not available, 1,681 respondents were included in the analysis (NCS-R $n = 709$, NSAL $n = 395$, NLAAS $n = 577$). The American Association of Public Opinion Research (AAPOR) response rate calculation formula 3 for each component survey was: 70.9% in the primary NCS-R sample; 80.4% in the secondary NCS-R sample (second family member within same household); 71.5% in the NSAL; and 73.2% in the NLAAS.¹⁸ The sample reflects sociodemographic characteristics of the United States; our sample includes 81.8% White Non-Latino respondents, 8.0% African American respondents, and 43.3% male respondents, compared to U.S. Census figures of 83.6% White Non-Latino, 8.1% African American, and 44.5% male.²⁰ Secondary analysis of these data was granted exempt status from the University of Minnesota's Institutional Review Board.

Variables

The dependent variable was utilization of any MHC in the past 12 months, and the explanatory variables were current and past diagnoses and symptoms of mental illness, number of chronic physical illnesses and alcohol abuse symptoms, and perceived need for MHC. Delay of care-seeking, attitudes toward care, sociodemographics, and possession of private insurance also were measured.

Main Outcome Measure: Utilization of MHC—CPES respondents reported whether they received any MHC from either a PCP (physician, nurse, or occupational therapist) or mental health specialist (psychiatrist, psychologist, social worker, psychiatric nurse, or counselor) in the past year. The determination of what constituted MHC was left to each respondent. Prescription medications being taken for mental health reasons without an

accompanying visit to a provider were not counted as utilization, similar to other studies of MHC use patterns.^{16,21–22}

Mental illness and alcohol abuse—Diagnostic algorithms within the World Mental Health (WMH) Survey Initiative's adaptation of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI 3.0) were used to determine whether respondents met the Diagnostic & Statistical Manual of Mental Disorders (DSM-IV) criteria (without hierarchy) for probable major depressive disorder (MDD), dysthymia, generalized anxiety disorder (GAD), another anxiety disorder (post-traumatic stress disorder, agoraphobia with or without panic disorder, panic attack, panic disorder, and social phobia), and/or alcohol abuse or dependence in the past 12 months or earlier in their lifetimes.^{23–24} The CPES does not include algorithms for subsyndromal conditions, so we modeled subsyndromal GAD diagnoses after a previous study of the condition.²⁵ The minor depression diagnoses reflect DSM-IV criteria for further study.²³ Respondents also reported the number of depression and anxiety symptoms they experienced during their worst lifetime episode of either condition.

Physical health and function—We summed the number of chronic conditions (heart troubles, ulcers, cancer, hypertension, diabetes, asthma, or chronic lung disease) that respondents reported ever experiencing. Cognitive functioning, self-care ability, and mobility were measured by the World Health Organization Disability Assessment Schedule II (WHO-DAS II).^{26–27} Scores are a product of frequency (number of days) and severity of problems (none, mild, moderate, severe) respondents reported experiencing in the past 30 days and are normalized to have values ranging from 0 to 100, where higher numbers indicate worse functioning.

Perceived need for MHC—Perceived need was ascertained for all respondents. Those who received MHC in the past year were asked if they sought care voluntarily. Respondents who did not receive MHC in the past year were asked if they felt a need to seek professional care in the past year for emotional or substance abuse issues. Those who said yes to either question were categorized as perceiving a need for MHC.²⁸

Delayed care and attitudes toward care—Respondents who indicated a perceived need for MHC but who waited at least four weeks before receiving care were categorized as delaying care and were asked about reasons for this delay. Respondents who indicated a perceived need for MHC but who did not receive care also were asked about their attitudes toward care.

Sociodemographics and insurance—Respondents' age, gender, race, marital status, household size, and possession of private insurance were recorded. Race was self-reported and was included in order to determine whether trends for less MHC use in minorities are seen in older adults.

Analyses

We used survey commands in SAS, version 9.2 (SAS Institute, Inc., Cary, NC) and SAS-callable SUDAAN, version 9.0.3 (RTI International, Raleigh, NC) to account for sampling weights in all analyses. Bivariate relationships between utilization and explanatory variables were tested with Rao-Scott chi-square tests with the "surveyfreq" procedure in SAS and t-tests in SUDAAN. Logistic regression in SUDAAN was used to examine relationships among illness characteristics, sociodemographics, perceived need, and utilization of MHC. Regressions were run on the full sample and then on two subsamples: those who met past-year diagnostic criteria (clinical need) and those who reported a perceived need for MHC in

the past year. Additional Rao-Scott chi-square and t-tests were performed to examine differences between those who delayed and did not delay seeking care.

Results

Mental Health of Sample

Relatively few people had current MDD (2.9%), but 7.0% met diagnostic criteria for MDD prior to the year of the study (Table 1). Of the entire sample, 2.0% met criteria for dysthymia and 2.2% met criteria for lifetime incidence of minor depression. Many respondents met diagnostic criteria for GAD or another anxiety disorder in the past 12 months (7.5%) and prior to the year of the study (14.2%). Of the entire sample, 5.0% met criteria for lifetime incidence of subthreshold GAD. Few (4.5%) reported any symptoms of alcohol abuse or dependence over their lifetime.

Utilization and underutilization of MHC

Of the entire sample, 6.5% (138) received some type of MHC in the past 12 months. Of the respondents who met past-year diagnostic criteria for MDD, 65.9% (51) did not receive MHC in the past 12 months. Of those who met diagnostic criteria for an anxiety disorder, 72.4% (130) did not receive care in the past 12 months. Of those who reported a perceived need for MHC, 17% (36) did not receive it (Table 1).

In bivariate analyses of the entire sample, MHC utilization was more likely for respondents with past-year or history of any depression or anxiety condition other than minor depression (Table 1). Utilization also was more likely among women, those who perceived a need for care and those with a history of more chronic physical conditions. Respondents with worse cognitive functioning and mobility were more likely to use MHC as well.

In multivariate logistic regression of the entire sample, respondents who met past-year MDD criteria were four times as likely to seek MHC as those who did not meet criteria (Table 2), and those who met past-year anxiety disorder criteria were more than six times as likely to seek MHC as those who did not meet criteria. History of an anxiety disorder was associated with twice the odds of seeking MHC. Respondents who reported any past symptoms of alcohol abuse or dependence were more likely to seek MHC as well. Women and respondents with private insurance were more likely to seek MHC.

Underutilization and clinical need

As noted above, the majority of those who had past-year depression or anxiety did not receive MHC. In a multivariate logistic model, we found that among those with past-year depression or anxiety, those with lower self-care ability were less likely to receive MHC. Increased likelihood of receiving MHC was found for those with more lifetime chronic physical conditions (OR/ condition = 1.72, 95% CI = [1.22, 2.42]) and with worse cognitive scores. Neither the number of symptoms of depression nor anxiety was significantly related to probability of utilization.

Utilization, Perceived Need, and Delayed Care

Clinical indicators of need, however, provide an incomplete picture of reasons for underutilization of MHC. Of those who had past-year depression, only 49.5% reported a perceived need for care, and 41.6% of those with past-year anxiety perceived a need for care. Perception of need for care also was not a sufficient condition for MHC receipt. Of those who perceived a need for care, 17.1% (36) did not seek care at all and 20.5% (43) delayed seeking care for at least four weeks.

Lifetime incidence of subthreshold GAD was related to lower odds of utilization among those who perceived a need for care (Table 2; OR = 0.20, 95% CI = [0.05, 0.84]). Past-year or history of depression or anxiety was not related to the odds of utilization, but increased age, larger household size, greater education, and better self-care scores were related to increased odds of utilization. The results of this model, however, should be interpreted with caution due to the small number of observations. Of the 36 respondents who perceived a need for care but did not receive any MHC in the past 12 months, 21 answered questions about their attitudes toward care. Of these, nine reported that the problem went away by itself. For the remaining 12 whose problems did not go away, the most common reasons for not seeking care were that they wanted to handle the issue on their own ($n=7$) or they were concerned about the cost of treatment ($n=5$).

There were few differences in illness characteristics between those who perceived a need for care but delayed seeking it, versus those who sought care immediately. Those who delayed care had better scores on the WHO-DAS mobility measure (mean = 5.75, standard error [SE] = 1.74 for those who delayed; mean = 16.06, SE = 2.97, $p = .002$) for those who did not delay care receipt) (Table 3). Those who delayed care also were more likely to have met diagnostic criteria for dysthymia (17.1% of those who delayed care had dysthymia versus 4.6% of those who did not delay care, $p = .04$). Race also was related to delay of care. Of those who delayed care, 9.5% were African American/Afro-Caribbean and 22.4% were Asian, Hispanic or of other racial/ethnic backgrounds, while of those who did not delay care, 3.9% were African American/Afro-Caribbean and 9.4% were Asian, Hispanic or of other racial/ethnic backgrounds ($p = .04$).

Respondents with perceived need who delayed seeking care were surveyed about their attitudes toward MHC (Table 4). The most common reasons for delaying care were perceived seriousness (33 of those who delayed care were not bothered very much by the problem at first and 31 thought the problem would get better on its own) and views of appropriate treatment (32 wanted to handle the problem by themselves and 21 did not think treatment would be useful). Several also had problems concerning the logistics of receiving care: 13 did not know where to go for care, 13 had scheduling difficulties, 7 had problems with insurance coverage, and 5 could not get an appointment. Five respondents who delayed care reported doing so because of stigma associated with mental illness. Attitudinal questions were not asked of respondents who received care immediately after perceiving a need for it.

Discussion

Utilization of MHC was more likely for females, those with past-year depression or anxiety, a history of anxiety, or private insurance. This pattern is similar to results of other studies of utilization of mental health care that include older adults.^{21, 29–31} Furthermore, older adults with a history of any alcohol abuse or dependence were more likely to use MHC. Similarly, in a sample that included older adults, a comorbid diagnosis of alcohol abuse/dependence along with anxiety or depression was related to a higher likelihood of MHC utilization.³² Subthreshold conditions were not related to odds of utilization in this sample. Rather than examining correlates of utilization in the entire sample, however, it is more important to understand the factors related to underutilization for those with clinical and perceived need.

Underutilization in the context of clinical need

Almost two-thirds of our sample with clinical need (past-year depression and/or anxiety) did not receive mental health care from a primary care provider or mental health specialist, which is a greater amount of unmet need for formal care utilization than that found in samples including younger adults.^{22,33} Underutilization was more likely for those with

fewer chronic physical conditions, consistent with other literature demonstrating a relationship between better physical health and lower odds of using MHC.^{31,34} Older adults seeking care for a chronic physical condition may be more likely to mention a mental health issue to their primary care provider. Underutilization was more likely for those with diminished self-care abilities and better cognitive capacity. Worse self-care scores may indicate difficulties in accessing care or a focus on the physical conditions corresponding to limited self-care ability.^{35–36} Worsening cognitive function may reflect somatic symptoms of depression or anxiety, such as lower concentration or energy, that lead older adults to seek MHC.³⁷ Furthermore, older adults with better cognitive functioning may be better able to explore informal treatment options, thereby avoiding MHC use.

Underutilization in the context of perceived need

Perceptions of need are important for increasing MHC utilization rates,³⁸ and we did find a large disparity between clinical and perceived need. Underutilization of MHC persists, however, in the face of perceived need, both in our sample and in younger adults.¹⁶ While the gap between perceived need and care use was lower in our sample than in younger adults¹⁶, this gap still represents millions of older adults who are not receiving MHC they feel they need. In contrast to a different analysis of older adults with perceived need for MHC, where only younger age was associated with underutilization,¹⁷ we found that lifetime incidence of subthreshold GAD, younger age, smaller household size, less education and worse self-care ability were related to underutilization.

Attitudes toward MHC seemed to play a large role in decisions to delay or not seek care among those with perceived need. Reasons for not seeking care or for delaying care often included symptom severity perception or desire to solve issues independently rather than scheduling, insurance, or fears about MHC. These attitudes likely are the reason for care delay, although in this data, attitudes toward care were asked only of respondents who perceived a need for MHC and then either delayed or did not receive any care. Despite respondents' perceptions of low symptom severity, of those who perceived a need for care but delayed seeking care, 13.5% met past-year criteria for MDD and 40.2% met past-year criteria for an anxiety disorder. Of those who perceived a need for care but did not use any, 17.1% met past-year criteria for MDD and 41.1% met past-year criteria for an anxiety disorder, suggesting that MHC may be beneficial for these respondents.

Our study has several limitations. First, we do not know the attitudes of all respondents toward MHC. We can look at patterns of attitudes only among those who perceived a need for care and delayed seeking that care for at least a month, but we are unable to tell the relative magnitude of effect these attitudes had on care-seeking behavior. Secondly, our measure of MHC is subject to respondent recall and relies on individual interpretations of what constitutes MHC. Because we are interested in perceived need for care, however, this definition of MHC is sufficient; if an individual does not recall visiting a provider or did not consider a visit as including MHC, a reported perceived need for care suggests that any care received did not adequately address the individual's needs. Furthermore, because these data are cross-sectional, the directions of the relationships among attitudes toward care, perceived need and utilization are unknown. Another drawback of the sample is the size; although we started with a large sample size, the number of older adults who met diagnostic criteria for depression or anxiety or who reported a perceived need for MHC was relatively small. We did not have enough observations to explore utilization among those who did not perceive a need for care in multivariate models. The CPES, however, is one of the largest mental health surveys to include an older population, and it provides more details on attitudes and perceptions than other surveys. Also, our measure of MHC does not reflect quantity or quality of care; the MHC received by older adults might not necessarily mitigate their mental health needs.

In conclusion, understanding the perceptions and attitudes that underlie older adults' health care-seeking behavior is an important step toward reducing underutilization of care for depression and anxiety. Communication between providers and older adults about mental health issues may increase or improve if clinicians have a better general understanding of older adults' attitudes and perceptions about MHC. Concordance between provider and patient understanding of health conditions or treatment regimens has been associated with improved adherence to geriatric care recommendations in general.³⁹ Future studies should examine the extent to which this applies to older adults and receipt of effective mental health care.

Acknowledgments

Funding/Support: Melissa Garrido was supported by an NRSA predoctoral training grant at the University of Minnesota – Twin Cities as well as an NIMH postdoctoral training grant at Rutgers University.

References

1. Martin L, Fleming K, Evans J. Recognition and management of anxiety and depression in elderly patients [Symposium on Geriatrics - Part IV]. *Mayo Clinic Proc* 1995;70(10):999–1006.
2. Montano C. Primary care issues related to the treatment of depression in elderly patients. *J Clin Psychiatry* 1999;60(suppl 20):45–51. [PubMed: 10513859]
3. Bartels S, Horn S, Sharkey P, et al. Treatment of depression in older primary care patients in health maintenance organizations. *Int J of Psychiatr in Med* 1997;27(3):215–31.
4. Ettner S, Hermann R, Tang H. Differences between generalists and mental health specialists in the psychiatric treatment of Medicare beneficiaries. *Health Serv Res* 1999;34(3):737–760. [PubMed: 10445900]
5. Blazer D. Psychiatry and the oldest old. *Am J Psychiatry* 2000;157:1915–24. [PubMed: 11097951]
6. Felker B, Yazel J, Short D. Mortality and medical comorbidity among psychiatric patients: A review. *Psychiatr Serv* 1996;47(12):1356–63. [PubMed: 9117475]
7. Kales H, Valenstein M. Complexity in late-life depression: Impact of confounding factors on diagnosis, treatment, and outcomes. *J Geriatr Psychiatry Neurol* 2002;15(3):147–55. [PubMed: 12230085]
8. Katon W, Lin E, Russo J, et al. Increased medical costs of a population-based sample of depressed elderly patients. *Arch Gen Psychiatry* 2003;60(9):897–903. [PubMed: 12963671]
9. Koenig H, Shelp F, Goli V, et al. Survival and health care utilization in elderly medical inpatients with major depression. *J Am Geriatr Soc* 1989;37(7):599–606. [PubMed: 2738278]
10. Parikh R, Robinson R, Lipsey J, et al. The impact of poststroke depression on recovery in activities of daily living over a 2- year follow-up. *Arch Neurol* 1990;47:785–89. [PubMed: 2357159]
11. Sherbourne C, Wells K, Meredith L, et al. Comorbid anxiety disorder and the functioning and well-being of chronically ill patients of general medical providers. *Arch Gen Psychiatry* 1996;53(10):889–95. [PubMed: 8857865]
12. Tannock C, Katona C. Minor depression in the aged: Concepts, prevalence & optimal management. *Drugs Aging* 1995;6(4):278–92. [PubMed: 7613017]
13. Moak G. Geriatric psychiatry and managed care. *Psychiatr Clin North Am* 2000;23(2):437–50. [PubMed: 10909119]
14. Prins M, Verhaak P, Bensing J, et al. Health beliefs and perceived need for mental health care of anxiety and depression – The patient's perspective explored. *Clin Psychol Rev* 2008;28:1038–58. [PubMed: 18420323]
15. Garrido MM, Kane RL, Kaas M, et al. Perceived need for mental health care among community-dwelling older adults. *J Gerontol B Psychol Sci Soc Sci* 2009;64B(6):704–12. [PubMed: 19820231]
16. Mojtabai R, Olfson M, Mechanic D. Perceived need and help-seeking in adults with mood, anxiety, or substance use disorders. *Arch Gen Psychiatry* 2002;59:77–84. [PubMed: 11779286]

17. Mackenzie C, Pagura J, Sareen J. Correlates of perceived need for and use of mental health services by older adults in the Collaborative Psychiatric Epidemiology Surveys [Abstract]. *Am J Geriatr Psychiatry*. 2010;1097/JGP.0b013e3181dd1c06
18. Heeringa S, Wagner J, Torres M, et al. Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *Int J Methods Psychiatr Res* 2004;13(4):221–240. [PubMed: 15719530]
19. Kessler R, Berglund P, Chiu W, et al. The US National Comorbidity Survey Replication (NCS-R): Design and field procedures. *Int J Methods Psychiatr Res* 2004;13(2):69–92. [PubMed: 15297905]
20. United States Census. Population by age, sex, race, and Hispanic or Latino origin for the United States: 2000 (PHC-T-9) (online). [Accessed July 14, 2009]. Available at: <http://www.census.gov/population/www/cen2000/briefs/phc-t9/index.html>
21. Sareen J, Cox B, Afifi T, et al. Mental health service use in a nationally representative Canadian survey. *Can J Psychiatry* 2005;50(12):753–61. [PubMed: 16408523]
22. van Beljouw I, Verhaak P, Prins M, et al. Reasons and determinants for not receiving treatment for common mental disorders. *Psychiatr Serv* 2010;61:250–7. [PubMed: 20194401]
23. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders: DSM-IV. Washington, DC: American Psychiatric Press; 1994.
24. Kessler R, Üstün T. The World Mental Health (WMH) Survey Initiative version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 2004;13(2):93–121. [PubMed: 15297906]
25. Carter R, Wittchen H, Pfister H, et al. One-year prevalence of subthreshold and threshold DSM-IV generalized anxiety disorder in a nationally representative sample. *Depress Anxiety* 2001;13:78–88. [PubMed: 11301924]
26. Kessler R, Barker P, Colpe L, et al. Screening for serious mental illness in the general population. *Arch Gen Psychiatry* 2003;60:184–9. [PubMed: 12578436]
27. World Health Organization. International Classification of Functioning, Disability, and Health: ICF Short Version. Geneva, Switzerland: World Health Organization; 2001.
28. Katz S, Kessler R, Frank R, et al. MHC use, morbidity, and socioeconomic status in the United States and Ontario. *Inquiry* 1997;34:38–49. [PubMed: 9146506]
29. Klap R, Unroe K, Unützer J. Caring for mental illness in the United States: A focus on older adults. *Am J Geriatr Psychiatry* 2003;11:517–24. [PubMed: 14506085]
30. Leaf P, Bruce M, Tischler G, et al. Factors affecting the utilization of specialty and general medical mental health services. *Med Care* 1988;26(1):9–26. [PubMed: 3336249]
31. Unützer J, Simon G, Belin T, et al. Care for depression in HMO patients aged 65 and older. *J Am Geriatr Soc* 2000;48(8):871–8. [PubMed: 10968289]
32. Bland R, Newman S, Orn H. Help-seeking for psychiatric disorders. *Can J Psychiatry* 1997;42:935–942. [PubMed: 9429063]
33. González H, Vega W, Williams D, et al. Depression care in the United States: Too little for too few. *Arch Gen Psychiatry* 2010;67(1):37–46. [PubMed: 20048221]
34. Komiti A, Judd F, Jackson H. The influence of stigma and attitudes on seeking help from a GP for mental health problems: A rural context. *Soc Psychiatry Psychiatr Epidemiol* 2006;41:738–45. [PubMed: 16819564]
35. Long S, Coughlin T, Kendall S. Access to care among disabled adults on Medicaid. *Health Care Financ Rev* 2002;23(4):159–73. [PubMed: 12500477]
36. Shea D, Streit A, Smyer M. Determinants of the use of specialist mental health services by nursing home residents. *Health Serv Res* 1994;29(2):169–85. [PubMed: 8005788]
37. Zisook S. Depression in late life: Diagnosis, course, and consequences. *Postgrad Med* 1996;100(4):143–56. [PubMed: 8858088]
38. Mechanic, D. *Medical Sociology*. 2. New York: The Free Press; 1978.
39. Maly RC, Leake B, Frank J, DiMatteo MR, Reuben DR. Implementation of consultative geriatric recommendations: The role of patient-primary care physician concordance. *J Am Geriatr Soc* 2002;50:1372–80. [PubMed: 12164993]

40. Collaborative Psychiatric Epidemiology Surveys. Services (online). [Accessed August 4, 2010]. Available at: <http://www.icpsr.umich.edu/cocoon/cpes/cpes/BLSERVICES/all/section.xml>

Table 1

Descriptive Statistics ($N = 1681$) and Bivariate Relationships among Sociodemographic Characteristics, Illness Characteristics, and MHC Utilization

Variable	Mean (SE) or Frequency (%) [*]	MHC Utilization		<i>P</i> Value
		No ($N = 1543$) 93.5%	Yes ($N = 138$) 6.5%	
Age	74.4 (0.3)	74.5 (0.3)	73.7 (0.7)	.25
Sex				
Male	640 (43.3)	607 (96.3)	33 (3.7)	
Female	1041 (56.7)	936 (91.3)	105 (8.7)	<.001
Race				
Non-Latino White	624 (81.8)	552 (93.4)	72 (6.6)	
African American/Afro-Caribbean	612 (8.0)	588 (95.9)	24 (4.1)	.26
Other	445 (10.2)	403 (92.2)	42 (7.8)	
Marital Status				
Not Married	942 (44.8)	865 (93.0)	77 (6.9)	.47
Married	739 (55.2)	678 (93.8)	61 (6.2)	
Education				
Less than a High School Education	691 (30.8)	639 (93.0)	52 (7.0)	.58
At Least a High School Education	990 (69.2)	904 (93.7)	86 (6.3)	
Household Size	1.64 (0.04)	1.64 (0.04)	1.72 (0.12)	.52
Poverty Index				
≤200% of Poverty Threshold	1014 (49.2)	939 (93.2)	75 (6.8)	.71
> 200% of Poverty Threshold	667 (50.8)	604 (93.7)	63 (6.3)	
Private Insurance				
No	643 (20.6)	604 (95.1)	39 (4.9)	.28
Yes	1038 (79.4)	939 (93.0)	99 (7.0)	
Perceived Need for Care				
No	1182 (92.7)	1171 (99.2)	11 (0.8)	<.001
Yes	157 (7.3)	36 (17.1)	121 (82.9)	
MDD (12 Mo)				
No	1601 (97.1)	1492 (94.3)	109 (5.7)	<.001
Yes	80 (2.9)	51 (65.9)	29 (34.1)	
MDD (History)				
No	1531 (93.0)	1415 (93.9)	116 (6.1)	.02
Yes	150 (7.0)	128 (87.6)	22 (12.4)	
Minor Depression (Lifetime)				
No	1647 (97.8)	1514 (93.5)	133 (6.5)	.41
Yes	34 (2.2)	29 (90.1)	5 (9.9)	
Dysthymia (Lifetime)				
No	1633 (98.0)	1508 (93.8)	125 (6.2)	<.001
Yes	48 (2.0)	35 (76.8)	13 (23.2)	
Anxiety (12 Mo)				

MHC Utilization				
Variable	Mean (SE) or Frequency (%) [*]	No (N = 1543) 93.5%	Yes (N = 138) 6.5%	P Value
No	1497 (92.5)	1413 (95.2)	84 (4.8)	<.001
Yes	184 (7.5)	130 (72.4)	54 (27.6)	
Anxiety (History)				
No	1407 (85.8)	1301 (94.2)	106 (5.8)	.02
Yes	274 (14.2)	242 (89.3)	32 (10.7)	
Subthreshold GAD (Lifetime)				
No	1586 (95.0)	1465 (93.9)	121 (6.1)	.01
Yes	95 (5.0)	78 (85.7)	17 (14.3)	
No. Depression Symptoms [†]	0.86 (0.09)	0.75 (0.08)	2.49 (0.35)	<.001
No. GAD Symptoms [†]	0.63 (0.07)	0.53 (0.07)	1.98 (0.26)	<.001
Any Alcohol Abuse/Dependence Symptoms [‡]				
No	1586 (95.5)	1456 (93.8)	130 (6.2)	.05
Yes	95 (4.5)	87 (86.6)	8 (13.4)	
WHO-DAS Self-Care	1.76 (0.32)	1.66 (0.34)	3.18 (1.17)	.21
WHO-DAS Cognitive	0.68 (0.14)	0.54 (0.15)	2.77 (0.94)	.02
WHO-DAS Mobility	8.68 (0.72)	8.31 (0.77)	13.95 (2.47)	.04
No. Chronic Conditions	1.30 (0.05)	1.28 (0.05)	1.63 (0.15)	.04

Abbreviations: MHC = Mental Health Care, SE = Standard Error, MDD = Major Depressive Disorder, GAD = Generalized Anxiety Disorder, WHO-DAS = World Health Organization Disability Assessment Scale

^{*} Unweighted *ns* and weighted percentages are reported

[†] Number of symptoms experienced during worst episode over respondent's lifetime

[‡] Symptom count refers to number of symptoms experienced at any point in lifetime

p-value refers to result of Rao-Scott chi-square or t-test

Table 2

Multivariate Logistic Regressions for MHC Utilization

Variable	Full Sample N = 1681		With Past-Year Depression and/or Anxiety n = 222		With Perceived Need n = 157	
	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
No. Chronic Conditions	1.28 (1.00, 1.65)	.05	1.72 (1.22, 2.42)	.002	0.93 (0.57, 1.53)	.78
Age	0.99 (0.95, 1.04)	.72	1.06 (1.00, 1.12)	.05	1.21 (1.09, 1.35)	<.001
No. Household Members	1.17 (0.83, 1.65)	.38	1.71 (0.87, 3.37)	.12	3.11 (1.25, 7.73)	.01
MDD (Past-Year)	4.09 (1.52, 10.97)	.005			1.47 (0.23, 9.45)	.68
MDD (History)	1.52 (0.61, 3.75)	.37			0.48 (0.11, 2.13)	.33
Anxiety (Past-Year)	6.39 (3.06, 13.35)	<.001			0.33 (0.08, 1.43)	.14
Anxiety (History)	2.20 (1.07, 4.52)	.03			0.50 (0.13, 1.96)	.32
Dysthymia (Lifetime)	0.75 (0.27, 2.10)	.58			1.21 (0.24, 6.09)	.82
Minor Depression (Lifetime)	1.76 (0.43, 7.19)	.43			1.72 (0.16, 18.72)	.66
Subthreshold GAD (Lifetime)	1.67 (0.68, 4.14)	.26			0.20 (0.05, 0.80)	.02
Any Alcohol Abuse/Dependence Symptoms*	3.47 (1.32, 9.15)	.01			0.71 (0.11, 4.77)	.72
No. Depression Symptoms [†]			1.12 (0.96, 1.31)	.15		
No. GAD Symptoms [†]			1.06 (0.92, 1.22)	.43		
Male	0.33 (0.17, 0.64)	.001	0.42 (0.08, 2.11)	.29	0.29 (0.07, 1.28)	.10
Race [‡]		.21		.39		.40
African American/Afro-Caribbean	0.58 (0.29, 1.16)		0.48 (0.11, 2.12)		0.34 (0.07, 1.68)	
Other	1.05 (0.54, 2.04)		0.53 (0.19, 1.50)		1.13 (0.26, 5.00)	
Married	1.42 (0.81, 2.49)	.22	1.45 (0.37, 5.75)	.59	3.20 (0.70, 14.70)	.13
High School Education	0.85 (0.50, 1.44)	.55	0.92 (0.44, 1.93)	.82	3.52 (1.06, 11.66)	.04
WHO-DAS Self-Care [§]	0.90 (0.68, 1.18)	.43	0.67 (0.48, 0.95)	.02	0.52 (0.31, 0.89)	.02
WHO-DAS Cognitive [§]	1.26 (1.00, 1.58)	.05	1.30 (1.01, 1.67)	.04	1.24 (0.83, 1.85)	.30
WHO-DAS Mobility [§]	1.05 (0.71, 1.55)	.80	0.93 (0.52, 1.67)	.80	1.37 (0.43, 4.31)	.59
≤ 200% of Poverty Threshold	1.02 (0.60, 1.74)	.94	1.90 (0.69, 5.25)	.22	1.18 (0.33, 4.21)	.79
Private Insurance	2.52 (1.10, 5.81)	.03	5.53 (1.49, 20.51)	.01	0.83 (0.20, 3.44)	.80

Abbreviations: MHC = Mental Health Care, OR = Odds Ratio, CI = Confidence Interval, MDD = Major Depressive Disorder, GAD = Generalized Anxiety Disorder, WHO-DAS = World Health Organization Disability Assessment Scale

* Cell sizes in the subgroup with past-year depression and/or anxiety were too small to include alcohol use as a covariate

[†] Symptoms experienced during the worst episode of the respondent's lifetime

[‡] Race was entered into the model as a categorical variable with three levels; reference category is Non-Latino White

[§] Odds ratios for WHO-DAS scores refer to change in odds per standard deviation.

Table 3Bivariate Tests for Differences between Delay and No Delay in MHC Use ($n = 138$)

Variable	Mean (SE) or Frequency (%) [*]		P Value
	No Delay ($n = 95$)	Delay ($n = 43$)	
Age	73.5 (0.8)	74.1 (1.5)	.75
Male	23 (24.5)	10 (24.3)	.99
Race			.03
Non-Latino White	57 (86.7)	15 (68.0)	
African American/Afro-Caribbean	14 (3.9)	10 (9.5)	
Other	24 (9.4)	18 (22.4)	
Married	44 (52.6)	17 (50.1)	.83
At Least a High School Education	56 (63.9)	30 (78.2)	.15
Household Size	1.7 (0.1)	1.8 (0.2)	.68
≤200% of Poverty Threshold	54 (54.1)	21 (40.4)	.28
Private Insurance	73 (85.1)	26 (82.6)	.78
MDD (12 Mo)	21 (15.9)	8 (13.5)	.75
MDD (History)	17 (13.2)	5 (13.8)	.94
Minor Depression (Lifetime)	3 (3.5)	2 (2.6)	.75
Dysthymia (Lifetime)	8 (4.6)	5 (17.1)	.04
Anxiety (12 Mo)	38 (29.5)	16 (40.2)	.38
Anxiety (History)	19 (21.9)	13 (29.0)	.55
Subthreshold GAD (Lifetime)	10 (10.6)	7 (12.2)	.84
No. Depression Symptoms [†]	2.3 (0.4)	3.2 (0.7)	.36
No. GAD Symptoms [†]	1.9 (0.3)	2.4 (0.5)	.36
Any Alcohol Abuse/Dependence Symptoms [‡]	7 (1.0)	1 (6.5)	.67
WHODAS Self-Care	3.5 (1.4)	1.8 (1.5)	.39
WHODAS Cognitive	3.2 (1.2)	1.2 (0.5)	.13
WHODAS Mobility	16.1 (3.0)	5.7 (1.7)	.002
No. Chronic Conditions	1.7 (0.2)	1.5 (0.2)	.61

Abbreviations: MHC = Mental Health Care, SE = Standard Error, MDD = Major Depressive Disorder, GAD = Generalized Anxiety Disorder, WHO-DAS = World Health Organization Disability Assessment Scale

^{*} Unweighted *ns* and weighted percentages are reported

[†] Number of symptoms experienced during worst episode over respondent's lifetime

[‡] Symptom count refers to number of symptoms experienced at any point in lifetime

p-value refers to result of Rao-Scott chi-square or t-test

Table 4Reasons for Delayed MHC among those who Perceived a Need for MHC ($n = 43$)

Variable	N (%)
"The problem didn't bother me very much" ^{40*}	33 (93.3)
"I wanted to handle the problem on my own"	32 (75.4)
"I thought the problem would get better by itself"	31 (73.6)
"I didn't think treatment would work"	21 (33.8)
"I was unsure about where to go or who to see"	13 (27.1)
"I thought it would take too much time or be inconvenient"	13 (25.1)
"I was concerned about what people would think if they found out I was in treatment"	5 (24.9)
"I had problems with things like transportation, childcare or scheduling that made it hard to get to treatment"	13 (21.9)
"I was scared about being put in a hospital against my will"	10 (20.7)
"I was concerned about how much money it would cost"	10 (20.1)
"I was not satisfied with available services"	7 (18.4)
"My health insurance would not cover treatment"	7 (18.3)
"I could not get an appointment"	5 (12.4)
"I received treatment before and it did not work"	6 (11.5)

MHC = Mental Health Care

* Items endorsed in "Services" section of CPES