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Low Use of Mental Health Services among Older Americans with Mood and Anxiety Disorders

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Abstract

Objective—It is unclear why late-life mood and anxiety disorders are highly undertreated, despite being common in older adults. Thus, this study determined the prevalence and key factors associated with non-use of mental health services among older community-dwelling adults with mood and anxiety disorders.

Methods—The study examined 348 participants aged 55 years and older who met criteria for prevalent DSM-IV mood and anxiety disorders from the National Comorbidity Survey Replication (NCS-R), a population-based probability sample. Analyses included frequency measures and logistic regression using weights and complex design-corrected statistical tests. Key factors associated with not using mental health services were determined in a final multivariable model using a systematic approach accounting for a comprehensive list of potential predictors.

Results—Approximately 70% of older adults with prevalent mood and anxiety disorders did not use services. Those who were from minority race/ethnic groups, not comfortable with discussing personal problems, who were married or cohabitating, and middle versus high income status had increased odds of not using mental health services. In addition, respondents with mild versus serious disorders, no chronic pain complaints, and low versus high perceived cognitive impairment had greater odds of non-use.

Conclusions—The results support improving perception of need and comfort to seek help, as well as increased screening and other prevention efforts, in order to combat the very high number of mood and anxiety disorders that go untreated in older Americans.

INTRODUCTION

Late-life mood and anxiety disorders are common and often co-occurring in community-dwelling adults (1). Although these disorders are treatable (2–7), it is estimated that over 50% of older adults symptomatic for a clinical diagnosis do not use mental health services (8–10). Yet, little is known about why, despite symptoms of mood and anxiety disorders,

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these older adults typically do not seek services. It is commonly held that poor use is due to stigma associated with mental health care and poor coordination of care (11); however, these assumptions are often made from community-based samples including older adults who are not mentally ill (12). Considering the current and projected growth of the older segment of the population and that mood and anxiety disorders are highly associated with poor health outcomes (13–17), the impact of untreated late-life mood and anxiety disorders has major public health implications. Thus, understanding the factors that influence low use of mental health services in those with greatest need is vital.

Most prior research on mental health service use in older adults with psychiatric diagnoses has been with clinical populations (18,19). Because these studies are limited to individuals whose mental disorders become known only in the course of seeking care, nonutilizers are often excluded from study. Although population-based studies are important resources for the examination of use and non-use, few have clinical measures of mood and anxiety disorders and none that we are aware of have determined key predictors in those with psychiatric conditions (8–10,20–26). In contrast, the National Comorbidity Survey Replication (NCS-R) data examined in this study are nationally representative with clinically-based measures of mood and anxiety disorders, as well as a broad range of potential predictors of non-use.

The primary purpose of our study was to determine the prevalence and key factors associated with not using mental health services in a national sample of older Americans meeting criteria for DSM-IV mood and anxiety disorders. This study will help to explain unmet need and barriers to care in the U.S. among the most affected older adults.

METHODS

Participants

The NCS-R is a nationally representative survey of 9,282 non-institutionalized participants aged 18 years and older in the coterminous United States (27–29). Respondents were selected from a multistage clustered area probability sample of households. Face-to-face interviews were conducted in respondents' homes between February 2001 and April 2003. The response rate was 70.9% (29). A detailed description of the NCS-R sampling and weighting procedures are outlined elsewhere (28).

In the current study, we examined a subpopulation of 348 NCS-R adults aged 55 and older who met DSM-IV (30) criteria for prevalent (12-month) mood (major depressive disorder, dysthymia, and bipolar I and II disorders) and anxiety (panic disorder, agoraphobia without panic, specific phobia, social phobia, generalized anxiety disorder, and posttraumatic stress disorder (PTSD)) disorders using the World Mental Health (WMH) Composite International Diagnostic Interview (CIDI) (31), with data obtained from the Inter-university Consortium for Political and Social Research (32). Appropriate methods for subpopulation examination of complex sample survey data were implemented for all analyses. The institutional review boards of the University of California, San Francisco and the San Francisco Veterans Affairs Medical Center approved this study.

Measures

Explanatory Variables—To study factors associated with not using mental health services, we used as our conceptual framework the Andersen behavioral model of health services use (33). This model posits 3 major factors—predisposing, enabling, and need factors.

Predisposing Factors: The predisposing factors examined were age, gender, education (completed 0–11 or ≥12 years), race/ethnicity (non-Hispanic white and black/Hispanic/other), and attitudes and mental health beliefs. Attitudes toward mental health care were assessed by three questions: willingness (to seek professional help if had a serious emotional problem), comfortable (talking about personal problems with professional), and stigma (embarrassed if friends knew getting professional help). Belief in benefit of mental health care was determined if respondent stated that they thought ≥50% of people who see a professional for serious emotional problems are helped. Similar definitions were used in previous NCS-R studies (34).

Enabling Factors: The enabling factors included marital status (married/cohabitating, divorced/separated/widowed or never married), income defined by the poverty index (i.e., the ratio of household income to poverty threshold used in the 2001 Census and adjusted for household size; categorized as low [≤1.5 times poverty line], middle [>1.5–6.0 times], and high [>6 times]) (35–37), and health insurance status defined by private, public, or military sources.

Need Factors: The need factors included comorbid medical conditions, disability, and severity of mood and anxiety disorders. The medical conditions examined were relevant to an older age sample with mood and anxiety disorders and included major comorbidities related to cardiovascular disease (CVD), i.e., stroke, heart attack, heart disease, or diabetes mellitus (38), and chronic pain (e.g., arthritis or rheumatism, chronic back or neck problems (39)).

Disability was defined by 5 domains (out of role, self-care, mobility, cognition, and social) of the World Health Organization Disability Assessment Schedule (WHO-DAS) (40,41). Out of role was measured by number of days during past 30 days when the respondent was completely unable to work or carry out their normal activities because of physical or mental health problems. The other domains were a product of frequency (number of days) and severity of problems (none, mild, moderate, severe) respondents reported experiencing in past 30 days. Thus, these are self-reported measures of perceived impairment (e.g., cognition was defined as perceived difficulties in concentration, memory, understanding, or ability to think clearly). All 5 scales were normalized to have values from 0 to 100, where higher scores indicated worse functioning.

Severity of mood and anxiety disorders was defined as serious, moderate, or mild in accordance with the WHO World Mental Health Survey Consortium (42). Serious disorders were defined as one of the following: meeting criteria for bipolar I disorder; making a suicide attempt in conjunction with any other prevalent WMH-CIDI/*DSM-IV* disorder; reporting at least 2 areas of role functioning with severe role impairment (score ≥7) due to the mental disorder in the disorder-specific Sheehan Disability Scales (43). Otherwise, respondents were classified as moderate if interference was rated as at least moderate (score 4–6) in any Sheehan Disability Scales domain. All others were classified as mild.

Dependent Variable: Non-Use of Mental Health Services—The Health Services section of the NCS-R asked participants about receiving treatment for emotional problems (i.e., “emotions, nerves, mental health, or use of alcohol or drugs”) (35,37,44). Classification of non-use of mental health services was based on participants reporting negatively, i.e., not reporting either seeing a specialty mental health provider (psychiatrist, psychologist, other mental health professional, social worker or counselor in a mental health specialty setting, overnight hospital stay, or use of a mental health hotline) or general medical provider (primary care physician, other general practitioner or family doctor, nurse, occupational therapist, or other non-specialty mental health professional) in prior 12 months.

Statistical Analyses

To produce nationally representative estimates, clustering and weighting techniques were implemented in order to reduce systematic bias and imprecision imbedded in the complex sampling design. Thus, percents and means were weighted, and statistical differences of non-use among predisposing, enabling, and need factors were initially estimated based on unadjusted weighted logistic regression analyses. The standard errors were determined from a recalculation of variance using the Taylor Series linear approximation method (45).

Multivariable logistic regression analyses estimated the relationship of the combined predisposing, enabling, and need factors with the odds of not using mental health services. To obtain the most parsimonious model, we selected important factors determined by *a priori* criteria. Factors were eligible for inclusion in the multivariable model if they were associated with non-use in bivariate analyses with $p \leq .20$. To be included in the final model, eligible factors were systematically added to the model and then removed if they did not maintain a $p \leq .10$. Odds ratios and 95% confidence intervals were estimated, along with design-corrected likelihood ratio statistics and Wald chi-square tests.

All analyses were performed using SAS Survey procedures, version 9.1.3 (SAS Institute Inc., Cary, NC).

RESULTS

Table 1 presents weighted sample distributions of the subpopulation of NCS-R older adults with prevalent DSM-IV mood and anxiety disorders by predisposing, enabling, and need characteristics. The average age of this subpopulation was 64 years. The majority was female, non-Hispanic white, and had a high school education or higher, middle income, and health insurance (approximately, 50% Medicare), while less than half were married or cohabitating. In general, attitudes toward mental health care were positive: approximately 90% reported their willingness to see a mental health professional for emotional problems, over 80% reported they would be comfortable discussing personal problems with professional, and almost 60% believed that such help would significantly benefit. Still, approximately 30% said they would feel embarrassed getting professional help. Additionally, although over 80% of respondents had chronic pain, disability scores were low in most domains and the majority of mood and anxiety disorders were mild to moderate.

Probability of Not Using Mental Health Services

Overall, 71.3% of respondents did not use mental health services. Table 2 shows that there was a high prevalence of non-use for most individual disorders (>50%) with the highest (65–80%) for specific phobia, social phobia, and generalized anxiety disorder. Interestingly, there was a high rate of comorbid mood-anxiety disorders with these respondents having a prevalence of non-use of 50%.

Figures 1–4 (please refer to the appendix online) present the proportion of respondents who did not use mental health services by predisposing, enabling, and need factors. For predisposing factors, Figure 1 shows that approximately 80% of individuals who were minority, felt stigmatized if sought professional help, and were not comfortable with the possibility of discussing personal problems with a professional did not use mental health services compared with approximately 70% of individuals non-Hispanic white, without stigma, and comfortable discussing problems. Although the pattern was similar for the willingness factor, the association was not significant according to study criteria ($p > .20$). In Figure 2, a greater proportion (80 to 86%) of respondents who were married or cohabitating, those without health insurance, and middle income respondents did not use mental health services versus those divorced, separated, widowed or never married, insured, and

respondents with low or high income (≤70%). The association of being married or cohabitating to non-use of mental health services was highly significant (Wald χ^2=11.2, *df*=1, p<.001). In contrast, not having health insurance and middle income were less statistically significant but still important potential predictors of non-use (p≤.20).

Finally, Figure 3 shows that individuals who did not have a history of cardiovascular conditions and did not have chronic pain, or had mild mood or anxiety disorders were highly prone to not using mental health services (CVD conditions: Wald χ^2=4.7, *df*=1, p=.03; chronic pain: Wald χ^2=8.2, *df*=1, p=.004; and severity of mood/anxiety disorders: Wald χ^2=31.9, *df*=2, p<.001). In fact, almost 90% of those with mild disorders did not use mental health services compared with approximately 50% of those with serious disorders. Additionally, Figure 4 presents the mean disability scores of the five WHO-DAS domains by non-use and use of mental health services. It is evident that lower scores corresponded with non-use of mental health services. The domains found to be potentially important predictors of non-use were out of role, mobility, cognition, and social.

Multivariable Analysis

Table 3 presents the key predisposing, enabling, and need factors included in the final multivariable logistic regression model. The odds of non-use of mental health services more than doubled in respondents who were black, Hispanic, or other race/ethnicity group than non-Hispanic white, those feeling discomfort with the idea of talking to professional about personal problems, individuals married or cohabitating, and middle versus high income respondents (OR=2.14, 2.50, 2.28, and 2.25, respectively). In addition, older adults with mild versus serious mood or anxiety disorders were almost five times more likely not to use services (OR=4.78). Similarly, those reporting no chronic pain had higher odds of non-use (OR=1.84), as well as respondents with less perceived cognitive impairment (OR=.74). Of note, when all variables from Table 1 were combined into one model, nearly identical statistically significant results were found as presented in Table 3. Furthermore, when analyses were considered only among those participants categorized as having serious mood or anxiety disorders (N=92), we found similar statistically significant (p<.05) predictors of non-use as in the overall model, that is, being married or cohabitating, minority race, and low perceived cognitive impairment. However, instead of discomfort, a lack of belief in the benefits of professional help was related to not using services (OR=5.81, 95% CI=2.14–15.78) among those who were seriously ill.

DISCUSSION

Among older NCS-R respondents with prevalent anxiety and mood disorders, the vast majority did not use mental health services. Although the prevalence of non-use was high across all predisposing, enabling, and need factors (>50%), not using services was most significantly related to minority race/ethnicity, discomfort with mental health care, married or cohabitating, middle income status, mild mood or anxiety disorder, and no chronic pain or minor cognitive complaints. These findings suggest that low perceived need, moderate resources, and low motivation for mental health care help to explain why services may not be sought, despite diagnosable mood and anxiety disorders.

Prior epidemiological studies have examined potential predictors of use in the overall sample, pooling those with and without psychiatric disorders (8–10, 20–26). Most of these studies have shown that the strongest predictors of use were recent diagnosis of a mental health disorder and other medical conditions associated with need for care. For example, a study from the 2001 National Survey on Drug Use and Health found that the only variables associated with mental health services use in older adults were having at least one mental health syndrome and poor physical health (10). Although such studies of pooled samples are

informative, they do not explain why the majority of older adults symptomatic for a mental health disorder do not seek care. In the current study, we found that low levels of mental and physical complaints were particularly important predictors. This included mild complaints of mood or anxiety disorders interrupting daily functioning (severity of disorder) and minor or no complaints of pain or cognition. These findings suggest that such minor complaints should be taken seriously, as they may equate to low perceived need for care in older adults with diagnosable DSM-IV mood and anxiety disorders. Moreover, over 80% of respondents had chronic pain complaints and most (approximately, 70%) did not use mental health services, which suggests that many older adults with mood and anxiety disorders may present with somatic symptoms to their primary care physician and, yet, have little insight into psychological problems. Furthermore, low use in older adults with mild or moderate mood and anxiety disorders may have occurred because these individuals received sufficient informal support and self help; however, further investigation of this was beyond the scope of our study.

After adjusting for need factors, predisposing and enabling characteristics still exerted important effects. However, although we found that respondents who were of black, Hispanic, and other race/ethnicity than non-Hispanic white were more likely not to use mental health services, we did not find a significant effect of gender, age, or education as studies of use have found examining pooled samples with and without mental health disorders (9,20–26). Yet, similar to other studies examining use in the overall sample, we found that respondents who were married or otherwise not living alone were more likely not to use mental health services. This suggests that older adults who are symptomatic for a mental health disorder and married or cohabitating do not perceive a need for mental health care, and may not receive support for seeking care or may view their significant other as a surrogate of care. In contrast, this finding may indicate the power of relationship loss or strife as a motivator for seeking care (37,46). Additionally, middle income status was an enabling factor, suggesting that resources available for treatment are more prominent in older adults with high or low socio-economic status.

Although most prior research has suggested that stigma is a significant contributing factor to older adults' not using mental health services (47–49), we found that discomfort discussing personal problems with a professional was a more predominant predictor in older adults with mood and anxiety disorders. This may occur because stigma was defined by being embarrassed to tell others about seeking help, suggesting the possibility of still seeking help but hiding it from others, while discomfort was defined by being uncomfortable interacting with professional. Thus, such a negative attitude as discomfort implicates difficulty in initial seeking of help and high potential for discontinuation if help is sought. In contrast, when we focused our analyses on those with severe mood or anxiety disorders, we found that it was not stigma or discomfort which predicted non-use but instead a lack of belief that mental health care helps.

The strengths of this study include a nationally representative probability sample, current *DSM* diagnostic assessment, and a comprehensive list of potential predictors selected based on the well-established Andersen behavioral model of health services use. This study helps to describe the low use of mental health services in a nationally representative sample of older Americans with DSM-IV mood and anxiety disorders. Our study is the first we are aware of to present key factors associated with not using mental health services in older community-dwelling U.S. adults with mood and anxiety disorders.

Investigating patterns of non-use of services in older adults have important implications for both policy and clinical practice, where findings support efforts at local and national levels to improve screening, perceived need for care, and service availability for mood and anxiety

disorders in late life. In particular, these results resonate with two overarching issues and recommendations identified by the U.S. Mental Health Commission: 1) improving access and continuity and 2) improving quality of mental health care (e.g., screening and prevention) (11). Additionally, depression screening has been recommended by the U.S. Preventive Services Task Force as a preventive service under Medicare (50). However, Medicare does not cover mental health screening as a benefit for most older adults (50,51). Ideally, the recent health care reform will increase such coverage, but currently it only expands payment of services already covered (52). However, such change is vital, as coverage of preventive services would promote collaborative care and service integration, which would significantly increase access and quality of care (4,50,53), and improve the quality of life of older adults.

There are several limitations of this study. First, the NCS-R underrepresents homeless, institutionalized, and non-English speaking older adults. Second, given issues of stigma, older adults with mental illness might be less inclined to participate in a mental health survey. Third, even though the WMH-CIDI was shown to have good concordance with the SCID (29), it is still a lay-administered interview. Therefore, the WMH-CIDI may not correspond to cases identified in clinical settings despite the use of similar diagnostic criteria. Fourth, some NCS-R older adults with mood and anxiety disorders may have been excluded from the study because of difficulty recalling symptoms. Fifth, we cannot validate self-reported use of mental health services. Finally, although less than half of the sample was 65 years and older which may limit generalizability to elderly adults, the NCS-R was limited in its assessment of mental health disorders considered common in older adults (e.g., depression NOS, dementia with depression, mood disorders secondary to medical disorders, adjustment disorders with depression, and bereavement). Thus, given the above limitations, the estimates herein are probably conservative.

CONCLUSIONS

The results of this study are disturbing, as all of the study subjects had clinically diagnosable mood and anxiety disorders but most did not use mental health services. However, these findings help to inform and support important public health targets. First, screening and monitoring programs are urgently needed to improve recognition of mood and anxiety disorders in community-dwelling older adults. Second, increased efforts are needed to improve motivation to seek help through outreach services. Third, efforts to expand coverage of mental health services for older Americans through health care reform is a step in the right direction, but the need for more, such as coverage of preventive services, is imperative.

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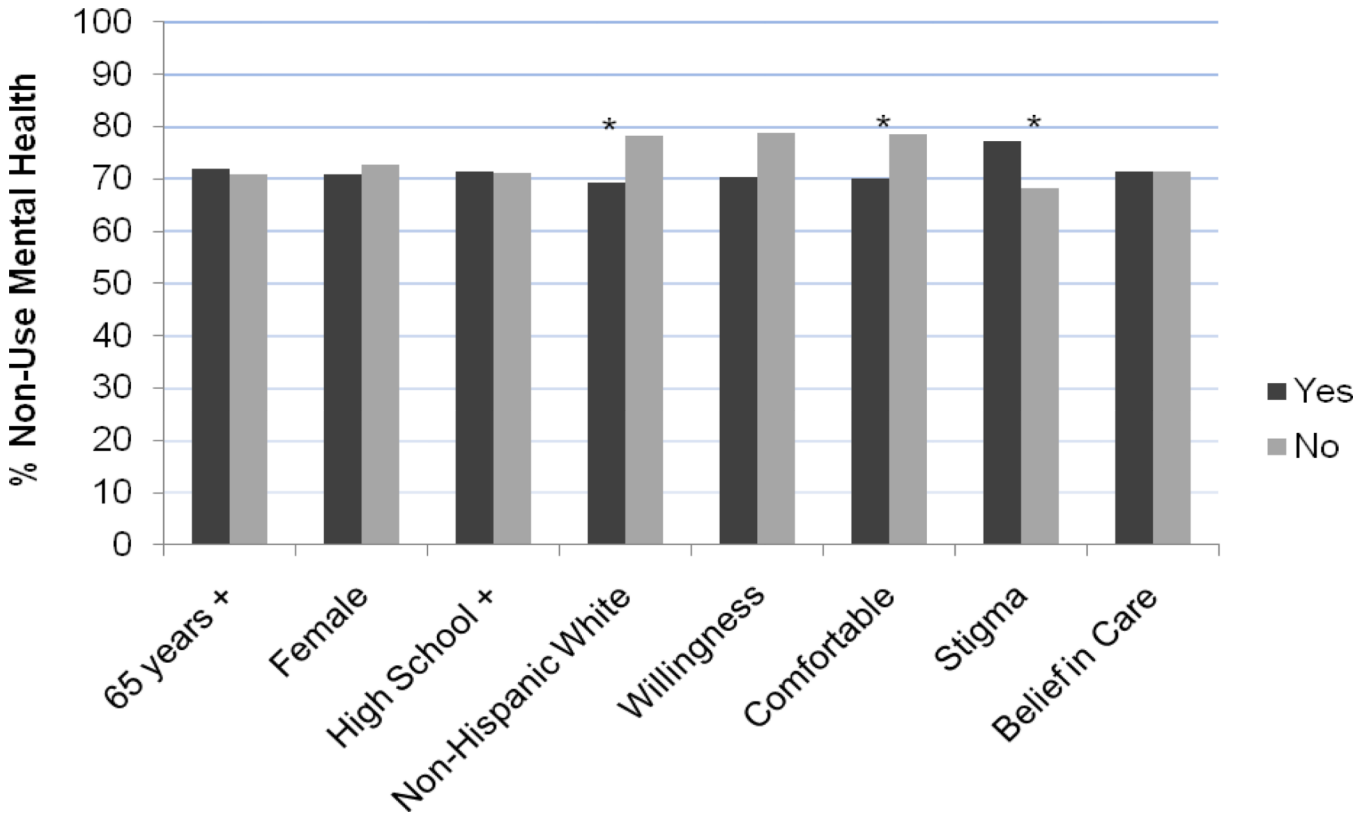

Figure 1.
Probability of not using services by predisposing characteristics

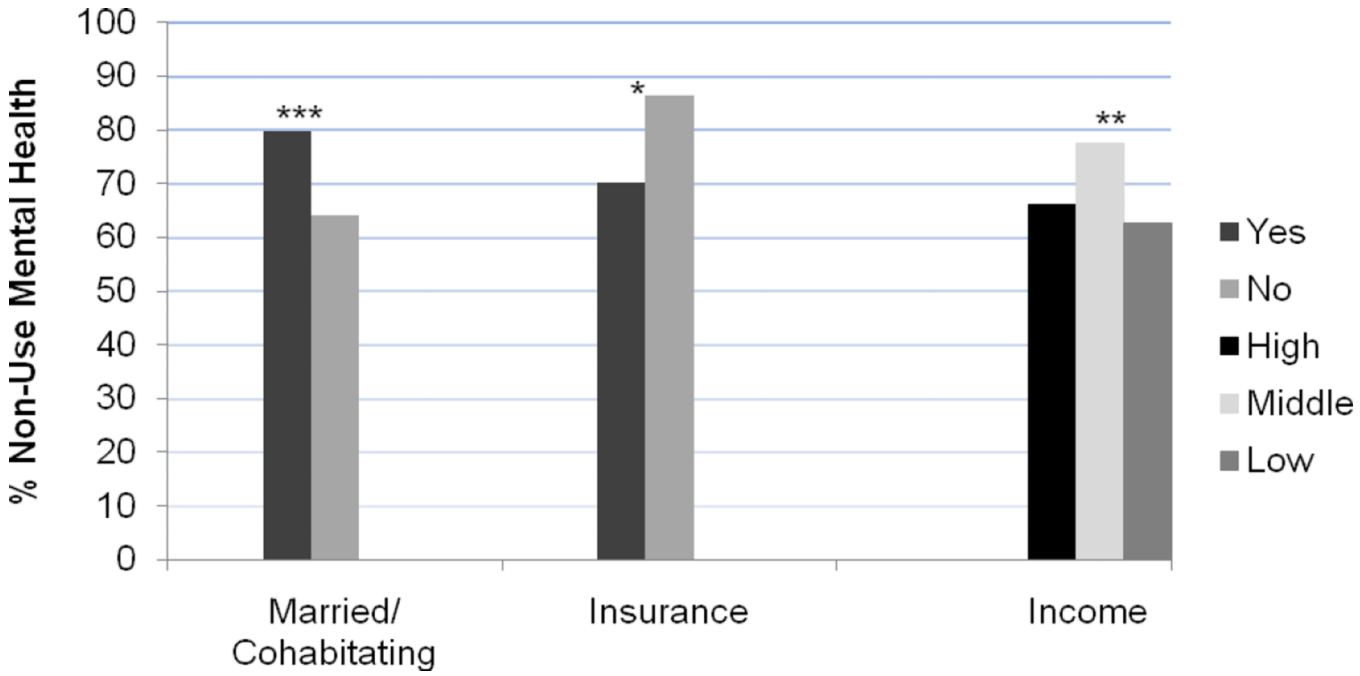

Figure 2.
Probability of not using services by enabling characteristics

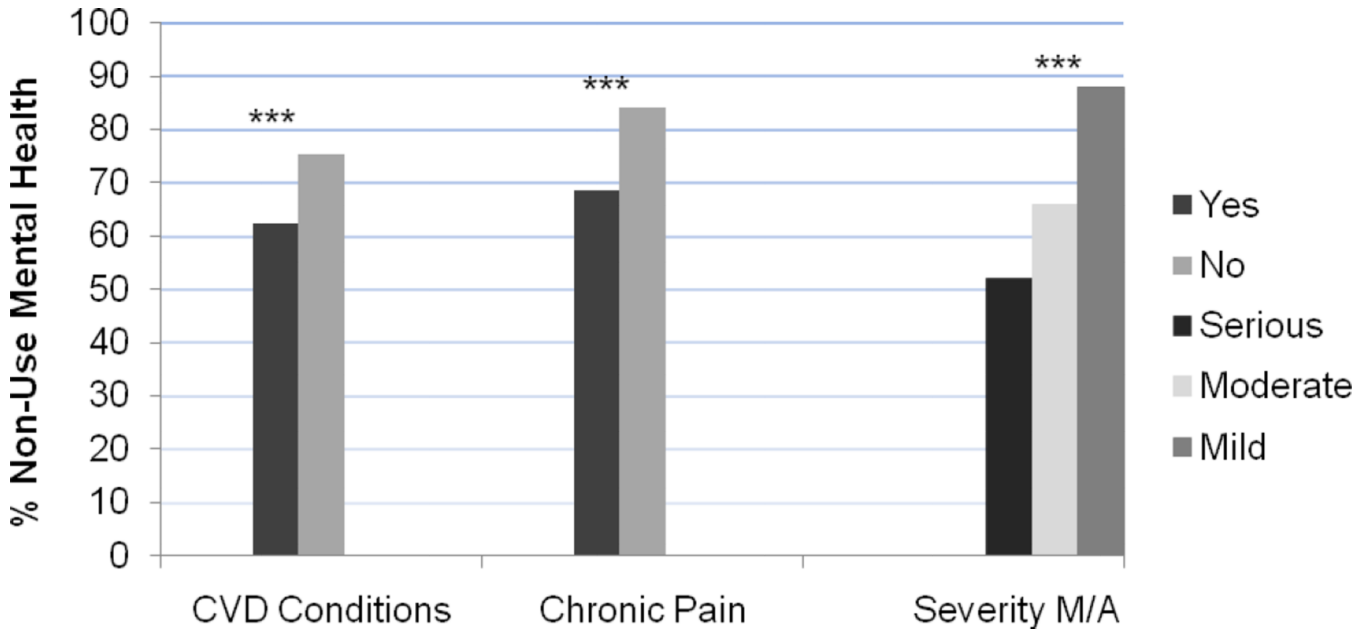

Figure 3.
Probability of not using services by need factors

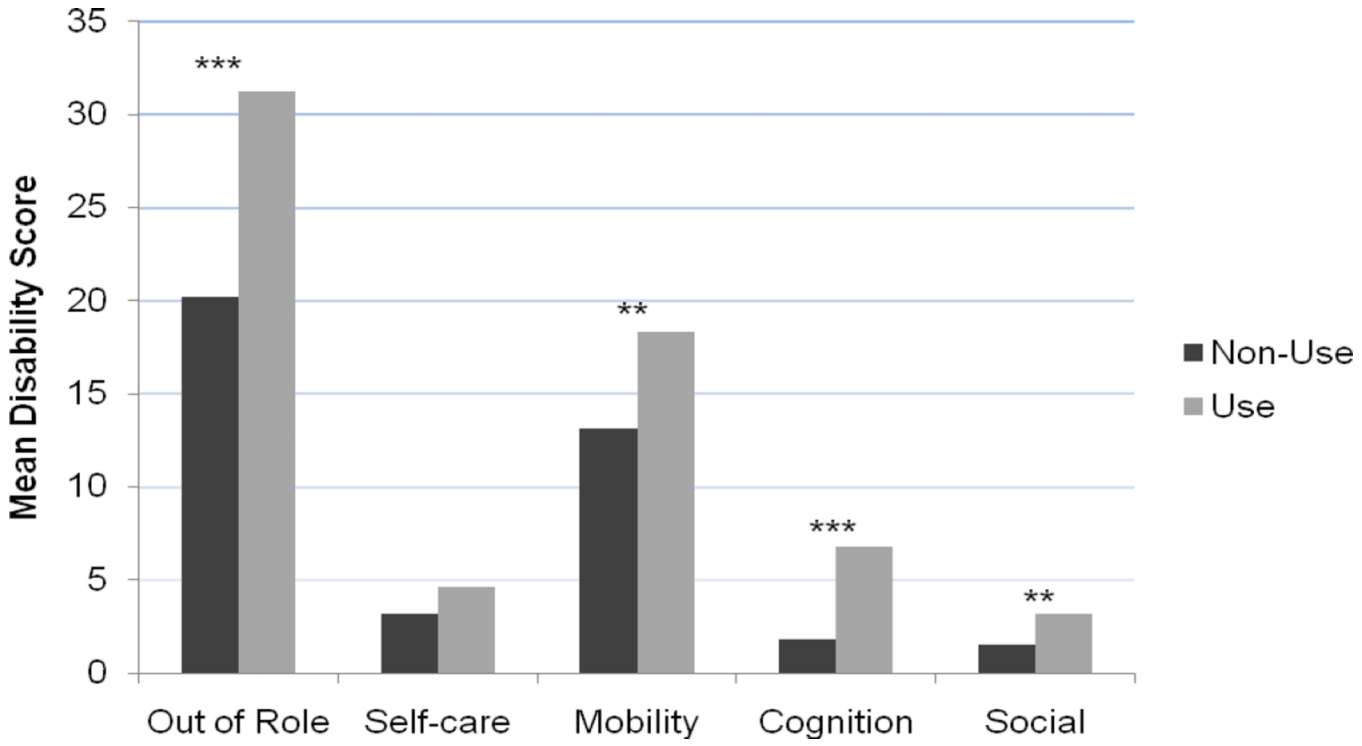

Figure 4. Mean disability scores by domain and services non-use/use

Abbrevations: CVD = medical conditions related to cardiovascular disease; M/A = Mood/Anxiety; *$p \leq .20$; **$p \leq .10$; ***$p < .05$

Table 1

Characteristics of 348 adults 55 years and older from the NCS-R with prevalent *DSM-IV*/WMH-CIDI mood and anxiety disorders[a]

Characteristic	N	Weighted % or Mean	SE
Predisposing Factors			
Age (years)	348	64.4	.6
55–64	209	61.9	3.3
≥ 65	139	38.1	3.3
Female	257	72.8	2.6
Education, ≥ 12 years	252	69.7	3.0
Non-Hispanic white	269	78.5	2.4
Attitudes toward mental health			
Willingness	309	88.3	2.0
Comfortable	291	85.9	1.8
Stigma	113	33.5	2.3
Belief in benefit of mental health	202	58.2	3.0
Enabling Factors			
Married/cohabitating	149	45.7	3.1
Income			
Low	105	30.3	3.2
Middle	194	55.6	3.2
High	49	14.1	2.0
Health insurance	326	92.4	2.0
Need Factors			
Severity of Mood/Anxiety			
Serious	92	24.5	2.6
Moderate	130	35.6	2.7
Mild	126	39.9	3.4
Medical			
Cardiovascular disease	101	31.5	2.3
Chronic pain	288	82.7	2.7
Disability score (WHO-DAS)[b]			
Out of role	348	23.3	1.9
Self-care	348	3.6	.8
Mobility	348	14.6	1.4
Cognition	348	3.2	.5
Social	348	2.0	.4

[a]Data were from the National Comorbidity Survey Replication (NCS-R) and included older adults diagnosed with 12-month DSM-IV disorders based on the World Mental Health Composite International Diagnostic Interview (WMH-CIDI).

[b]Possible scores range from 0 to 100, with higher scores indicating worse functioning.

Table 2

Non-use of Mental Health Services by prevalent *DSM-IV*/WMH-CIDI mood, anxiety, and comorbid disorders in adults 55 years and older[a]

Disorder	Unweighted N	Non-Use, Weighted %	SE
Mood Disorders			
Any mood	132	56.2	3.7
Major depressive disorder	107	58.0	4.6
Dysthymia	20	61.8	10.3
Bipolar I or II disorder[b]	24	41.2	11.3
Anxiety Disorders			
Any anxiety	293	72.6	2.3
Panic disorder	35	44.2	10.1
Agoraphobia without panic	24	56.3	8.0
Specific phobia	160	79.5	3.5
Social phobia	101	69.7	4.5
Generalized anxiety disorder	58	65.6	5.9
Posttraumatic stress disorder	49	46.0	7.6
Comorbid disorder[c]	77	50.2	6.3

[a] Data were from the National Comorbidity Survey Replication (NCS-R) and included older adults diagnosed with 12-month DSM-IV disorders based on the World Mental Health Composite International Diagnostic Interview (WMH-CIDI).

[b] Bipolar I and II disorder represents proportion of respondents who endorsed either bipolar I, II, or subthreshold bipolar disorder.

[c] Comorbid disorder defined as any co-occurring mood-anxiety disorders.

Table 3

Factors associated with not using Mental Health Services in adults 55 years and older with prevalent *DSM-IV*/WMH-CIDI mood and anxiety disorders [a]

Characteristic	OR	95% CI	Wald χ^2	df	p
Predisposing Factors					
Black/Hispanic/other (reference: Non-Hispanic white)	2.14	1.21–3.77	6.8	1	.009
Not comfortable (reference: comfortable)	2.50	1.15–5.41	5.4	1	.02
Enabling Factors					
Married/cohabitating (reference: Divorced/separated/ widowed/never married)	2.28	1.41–3.67	11.4	1	<.001
Income (reference: high)			4.9	2	.09
Low	1.98	.61–6.40	1.3	1	.25
Middle	2.25	1.07–4.72	4.6	1	.03
Need Factors					
Severity (reference: serious)			22.4	2	<.001
Mild Mood/Anxiety	4.78	2.37–9.61	19.2	1	<.001
Moderate Mood/Anxiety	1.27	.61–2.67	.4	1	.52
No chronic pain (reference: chronic pain)	1.84	.97–3.47	3.5	1	.06
Perceived cognitive Impairment [b]	.74	.62–0.88	11.8	1	<.001

[a] Data were from the National Comorbidity Survey Replication (NCS-R) and included older adults diagnosed with 12-month DSM-IV disorders based on the World Mental Health Composite International Diagnostic Interview (WMH-CIDI). Estimates are based on a multivariable logistic regression model, where individual characteristics are adjusted for variables presented in the Table.

[b] OR for WHO-DAS score refers to change in odds per standard deviation. Perceived cognitive impairment or 'cognition' was defined as perceived difficulties in concentration, memory, understanding, or ability to think clearly.