

Psychiatric Diagnosis and Intervention in Older and Younger Patients in a Primary Care Clinic: Effect of a Screening and Diagnostic Instrument

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OBJECTIVES: To determine whether patient age is associated with psychiatric diagnosis or provider intervention in a busy primary care clinic, and, if so, whether a screening and diagnostic tool, the PRIME-MD, modifies age-related differences.

DESIGN, SETTING, AND PARTICIPANTS: PRIME-MD use, psychiatric diagnosis, and provider interventions for psychiatric conditions were recorded for eligible patients attending a Veterans Affairs Medical Center primary care clinic. Data from 952 younger (< 65 years) and 1135 older patients (\geq 65 years) were analyzed to determine whether there were age-related differences in diagnosis/intervention and if use of the PRIME-MD modified these differences.

INTERVENTION: Implementation of the PRIME-MD, a two-step instrument consisting of a self-administered patient questionnaire and a provider-administered structured diagnostic interview.

MEASUREMENTS: Outcome measures were rates of (1) PRIME-MD use, (2) overall psychiatric diagnosis, (3) new psychiatric diagnosis, and (4) provider intervention for psychiatric conditions.

RESULTS: There was no association between patient age and PRIME-MD use. Older patients were less likely to receive a psychiatric diagnosis in analyses that adjusted for "highly positive" screening questionnaires (OR = .45; $P < .001$). Older patients were also less likely to receive an intervention for a psychiatric condition in analyses that adjusted for whether a psychiatric diagnosis (OR = .62, $P = .015$) or a new psychiatric diagnosis (OR = .36, $P < .001$) was made

during the study visit. The PRIME-MD increased rates of diagnosis and intervention but did not alter age-related disparities.

CONCLUSIONS: Decreased rates of psychiatric diagnosis and intervention in older primary care patients are of concern. Implementing the PRIME-MD will likely increase rates of diagnosis and intervention but will need to be accompanied by additional measures to eliminate age-related disparities. *J Am Geriatr Soc* 46:1499-1505, 1998.

Older primary care patients commonly present with psychiatric symptoms. Seventeen to 30% of patients 65 years of age and older present with depressive symptoms,¹⁻⁶ approximately 10% present with probable alcohol abuse,⁷ and 26 to 30% present with significant anxiety symptoms.⁸ However, only a minority of patients with depression and other psychiatric disorders are identified and treated by their primary care physicians (PCPs),^{7,9-13} and detection may be lower among older than among younger patients.^{14,15}

Patients with psychiatric disorders have significant morbidity and impairment.¹⁶⁻¹⁹ Older patients with depressive symptoms, mood disorders, or alcohol abuse have higher mortality rates than comparison patients,^{7,20} and older patients with depression have higher health service use and costs than nondepressed patients.^{1,21} Despite their significant morbidity, older patients are less likely than younger patients to seek out specialty mental health providers. Instead, they seek and receive mental health treatment from PCPs.²²⁻²⁴ Thus, increasing detection and treatment of mental illness in primary care may be an essential step in decreasing excess morbidity in these individuals.

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Formal screening for psychiatric disorders is one strategy for increasing detection and treatment. Most,²⁵⁻²⁸ although not all,²⁹⁻³¹ studies examining the impact of screening questionnaires report increased rates of detection and treatment with screening. One randomized controlled trial found that screening increased detection and treatment in older patients but did not change detection and treatment in younger patients.^{14,29} This suggests that screening programs may be particularly effective and important for older patients.³²

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Unfortunately, patient outcomes do not necessarily improve with screening, even when detection and treatment rates are increased.³³ Callahan et al. found that a broad based intervention among older patients that included screening for depression, patient-specific treatment recommendations, and additional visits with the PCP resulted in increased diagnosis of and treatment for depression.³⁴ However, more than half of the intervention patients still did not receive specific treatment for depression,^{34,35} and there were no significant effects on patient symptoms or functioning.³⁴ Intervention and control patients continued to have significant levels of depressive symptoms.

Traditional screening questionnaires may fail to improve patient outcomes for a variety of reasons. Traditional screens usually focus on only one psychiatric disorder rather than on multiple disorders, even though psychiatric comorbidity is common and PCPs often treat patients with more than one disorder.^{36,37} Traditional screens also have relatively low positive predictive values (PPVs) — a small proportion of patients with “positive” screens actually have the disorder. The PPV of the commonly used depression screens is only 13 to 27%,^{38,39} and one of the commonly used screens, the Zung Depression Scale, may have decreased sensitivity and specificity and, therefore, decreased PPV, in older patients.^{40,41} Screening questionnaires also do little to address PCPs’ unfamiliarity with psychiatric diagnostic criteria. PCPs’ unfamiliarity with diagnostic criteria may hamper their efforts to follow up on positive screens, diagnose disorders definitively, and initiate specific treatments. Finally, many PCPs may not have the time or the training to pursue indications of emotional distress on patient questionnaires.⁴² In surveys querying PCPs about their attitudes toward mental health treatment, PCPs expressed concerns about inadequate clinical skills and lack of time.^{43,44} Unfortunately, even when PCPs intend to treat, they often have difficulty following through on these intentions, perhaps because of their own or their patients’ concerns about treatment effectiveness and side effects.^{35,45}

Spitzer et al. addressed many of these concerns when they developed a new psychiatric screening and diagnostic instrument, the PRIME-MD, in 1994. The PRIME-MD, a two-step instrument, was designed for use in primary care and includes both a self-administered patient questionnaire and a provider-administered diagnostic interview, the Clinician Evaluation Guide (CEG).⁴⁶ This design was intended to preserve the high sensitivity of self-administered questionnaires while increasing diagnostic specificity. The PRIME-MD screened for five common categories of mental disorders in primary care: mood disorders, anxiety disorders, somatoform disorders, eating disorders, and alcohol abuse, and called attention to psychiatric comorbidity.⁴⁶ The instrument also supplied PCPs with diagnostic criteria and an easy method for following up on positive screens.

The validity, reliability, and utility of the PRIME-MD was studied in 1000 primary care patients ranging from 18 to 91 years in age.⁴⁶ Diagnoses made by PCPs using the PRIME-MD showed good agreement with diagnoses made by mental-health specialists in independent telephone interviews, and PRIME-MD diagnoses were associated with lower functional rating scores and greater numbers of disability days.^{46,47}

In a previous study, we examined the effectiveness of the PRIME-MD in a busy primary care clinic and determined the

type of clinic support needed to implement the PRIME-MD and increase psychiatric diagnosis and provider intervention.⁴⁸ We found that PRIME-MD use was associated with increased diagnosis and intervention and that nursing staff support resulted in sufficient instrument use to realize gains in new diagnosis and intervention.

In this study, we examined the relationship between patient age and the likelihood of psychiatric diagnosis and provider intervention. We also explored whether use of the PRIME-MD modified any age-related differences in diagnosis and intervention.

METHODS

Data were collected as part of a prospective trial of the effects of varying levels of clinic support on the implementation of the PRIME-MD, psychiatric diagnosis, and provider intervention. Data on patient questionnaire use, provider interview use, psychiatric diagnosis, new psychiatric diagnosis, and provider interventions for psychiatric conditions were collected when the PRIME-MD received either no support for implementation, nonclinical staff support for implementation, nursing staff support, or provider prompts advising use of the PRIME-MD interview. A detailed account of the methods and results of the study has been published.⁴⁸

In this study, we analyzed these data and examined the relationship between patient age and psychiatric diagnosis/intervention and the effects of screening on diagnosis and intervention in younger and older patients.

Study Site

The study was conducted in the General Medicine Clinic (GMC) at the Ann Arbor Veterans Affairs Medical Center (VAMC) between March 20 and June 23 and between August 14 and August 18, 1995. The GMC is staffed by internal medicine residents, staff physicians, physician assistants, and nurse practitioners and serves approximately 60 to 90 patients each day. A total of 54 practitioners provided direct patient care in the clinic during the study period.

Study Population

Patients were included in the study if (1) they were seen in the GMC between 8 a.m. and 10:30 a.m. during the first 6 weeks of the study or between 8 a.m. and 11 a.m. during the remaining study weeks; (2) this was their first or only visit to the clinic during the study period; (3) their chart note was returned to the clinic clerk by 12:30 p.m. on the day of the visit; and (4) patient age was recorded.

A total of 3491 patient visits took place during the designated study period, and 2735 (78%) of these visits had chart notes returned by 12:30 p.m. Of these visits, 2282 were “first or only” visits. Patient age was recorded in 2087 (91%) of the “first or only visits,” and these visits were used in study analyses.

Patients included in the study had a mean age of 63.1 years (range 24–89 years, SD 11.5). The patient group less than age 65 had a mean age of 53.1 years, and the group 65 years of age and older had a mean age of 71.5 years. Ninety-seven percent of the patients were male, reflecting the demographics of the GMC.

Intervention

The PRIME-MD was implemented in the GMC with varying types of staff support. Three active support condi-

tions for PRIME-MD implementation were alternated weekly between March 27 and June 23, 1995. The week before the initiation of support, the week following cessation of support, and a week that followed 8 weeks after cessation of support constituted a no-support (NS) condition.

Study Measures/Data Collection

Outcome Variables

Data were collected for five dichotomous outcome variables: (1) PRIME-MD questionnaire-use (used Y/N); (2) PRIME-MD structured-interview (CEG) use (used Y/N); (3) any psychiatric diagnosis during the visit (Y/N); (4) new psychiatric diagnosis (Y/N); and (5) provider intervention for psychiatric conditions (Y/N). Research assistants recorded questionnaire and interview use on the day of the visit. Patients were recorded as using the questionnaire if they completed items beyond the basic demographic items. Providers were recorded as using the semi-structured interview, the CEG, if any module in the CEG showed written notation or if CEG use was noted in the chart note.

Information about psychiatric diagnosis, provider intervention for psychiatric disorders, and patient age was obtained through structured review of chart notes by two study psychiatrists. Psychiatric diagnosis was defined broadly — any specific or nonspecific diagnostic notation on the patient questionnaire, CEG, or progress note was considered a diagnosis. For example, if providers noted depression, they were considered to have made the diagnosis of Depression, Not Otherwise Specified. A psychiatric diagnosis was considered new if providers indicated in the progress note that they were making a diagnosis during the visit but did not note any past psychiatric history. Providers were considered to have made an intervention if they: (1) made a referral to a mental health provider, (2) started a new psychotropic medication, (3) provided supportive counseling, (4) advised the patient to continue ongoing mental health treatment, or (5) continued a previously prescribed psychotropic medication.

Our definitions of psychiatric diagnosis and new psychiatric diagnosis were deliberately broad and included nonspecific diagnostic notation in order to capture PCP recognition or detection. PCPs often do not use specific Diagnostic and Statistical Manual (DSM) notation in their notes, yet they recognize psychiatric disorders and begin or continue treatment and management. Although the PRIME-MD was designed to facilitate the use of DSM notation, study PCPs often continued to use nonspecific notation.

Independent (Predictor) Variables

Patient age-groups were categorized as either younger (less than age 65 years, $n = 952$) or older (65 years of age or older, $n = 1135$).

Covariates

Data on patients' nonpsychiatric medications, nonpsychiatric hospitalizations, and nonpsychiatric clinic visits were obtained from the Ann Arbor VAMC Veterans Health Information System and Technology Architecture system and from the centralized Veterans Health Administration (VHA) outpatient clinic and patient treatment files for the period from January 1 to June 30, 1995.

Covariates for medical comorbidity were constructed and included (1) numbers of nonpsychiatric medications, (2)

whether the patient had had any nonpsychiatric hospitalizations in the 6-month period (Y/N), and (3) whether the patient had more than the median number of clinic visits during the 6-month period (> 3 clinic visits, (Y/N)). (Dichotomous measures were constructed for nonpsychiatric hospitalizations and clinic visits because these data were highly skewed).

Statistical Analyses

Analyses were conducted of the 2087 patient visits that met study eligibility criteria. Rates of PRIME-MD questionnaire use, CEG use, psychiatric diagnosis, new psychiatric diagnosis, and provider intervention were calculated for the two age groups.

Bivariate analyses of the relations between age groups and (1) PRIME-MD use, (2) psychiatric diagnosis, and (3) provider intervention for psychiatric conditions were conducted with 2×2 contingency tables and chi-square statistics. We also conducted bivariate analyses of the relations between "young old" (65 to 74 years of age) and "old old" patients (75 years of age and older) and psychiatric diagnosis/intervention to examine whether there were differences in outcomes among patients over 65. As there were no significant differences between young old and old old patients, we present information only for the dichotomized younger and older age groups.

Multivariable generalized estimating equations (GEEs) were used to examine the relationship of each of the five dichotomous outcome variables — questionnaire completion, CEG completion, psychiatric diagnosis, new psychiatric diagnosis, and provider intervention — with patient age group. The five multivariable GEE analyses included a dummy 0–1 predictor variable for patient age group and controlled for the presence or absence of active support for screening and study week. The possibility of a nonlinear relationship between the outcome variables and study week was investigated, and a "week squared" term was found to be significant and was incorporated into the model for CEG use.

These GEE analyses were repeated with covariates for medical comorbidity, including: numbers of nonpsychiatric medications, the occurrence of a hospitalization, and greater than average numbers of clinic visits in the 6-month period between January 1 and June 30, 1995.

We examined whether support for PRIME-MD implementation modified age-related differences in diagnosis and intervention by repeating GEE analyses for rates of (1) any psychiatric diagnosis, (2) new psychiatric diagnosis, and (3) provider action, including an interaction term for "age group \times support for PRIME-MD implementation." Similarly, we examined whether actual questionnaire use or CEG use modified age-related differences by constructing GEE analyses and including interaction terms for "age group \times questionnaire use" or "age group \times CEG use." Variables for the main effects of age group, study week, and either support for implementation, questionnaire use, or CEG use were included in these analyses.

All GEE analyses accounted for correlation of observations by provider, and estimated parameters were adjusted for all predictors in the model. Data were analyzed with SAS software, version 6.12 (SAS Inc., Cary, NC)

RESULTS

Relationship of Patient Age Group to PRIME-MED Use, Diagnosis, and Intervention

Table 1 summarizes the rates of instrument use, psychiatric diagnosis, and provider intervention for patients less than 65 years of age and patients aged 65 years and older. The table includes odds ratios for diagnosis and intervention in patients aged 65 years and older compared with patients less than age 65.

Patient age group was not associated significantly with PRIME-MD questionnaire or CEG use. Older patients were as likely as younger patients to complete questionnaires and to be interviewed by their providers with CEGs, but older patients were less likely than younger patients to be diagnosed with a psychiatric disorder (OR = .42, 95% CI [0.32, .53], $P < .001$). However, the decreased rate of diagnosis among older patients was not caused simply by decreased rates of positive screens on questionnaires. Although older patients were less likely to have positive screens than younger patients (78.6% versus 85.4%; $\chi^2 = 11.66$, $P < .001$), they were less likely to be diagnosed with psychiatric disorders in multivariable analyses that adjusted for "positive" screens (OR = .43, 95% CI [0.33, .55], $P < .001$) or "highly positive" screens — screens with positive scores on three or more disorder categories (OR = 0.45, 95% CI [0.35, .59], $P < .001$). Overall, 13% of older patients and 26% of younger patients received a psychiatric diagnosis during the study period, and 16% of older patients and 30% of younger patients with positive questionnaires received a psychiatric diagnosis.

There was a trend toward decreased "new diagnosis" in older patients compared with younger patients in the multivariable analysis that adjusted for study week and support for screening (OR = .70, 95% CI [0.48, 1.01], $P = .057$). However, significant differences in overall rates of psychiatric diagnosis seemed to be caused primarily by differences in the notation of past or ongoing psychiatric disorders rather than differences in new diagnoses.

Providers were less likely to intervene for psychiatric conditions in older patients (OR = 0.39, 95% CI [0.27, .55] $P < .001$), and these differences remained after adjustment for whether patients received any psychiatric diagnosis (OR = 0.62, 95% CI [0.43, .91] $P = .015$) or a new

psychiatric diagnosis (OR = 0.36, 95% CI [0.26, .51], $P < .001$) during the study encounter. Seven percent of patients 65 years of age or older received a provider intervention compared with 16% of patients less than age 65. Table 2 summarizes rates of intervention in older and younger patients stratified by whether "any" or a "new" psychiatric diagnosis was made during the patient visit.

Modification of Age-Related Differences with Screening

The interaction terms, patient age group \times support for PRIME-MD implementation, patient age group \times questionnaire use, and patient age group \times CEG use were not significant in multivariable analyses that examined the relationship between diagnosis/intervention and patient age. (These analyses included variables for the main effects of patient age group, study week, and either support for PRIME-MD implementation or PRIME-MD questionnaire or CEG use.)

Thus, neither support for PRIME-MD implementation nor actual instrument use modified the relationships between patient age group and diagnosis or intervention significantly. Figure 1 illustrates differences in diagnosis and intervention in the two age groups with and without questionnaire use.

Effects of Covariates for Medical Comorbidity

The inclusion of covariates for numbers of nonpsychiatric medications, the occurrence of a recent hospitalization, or having more than the median number of clinic visits in the 6 months between January 1 and June 30, 1995, did not change appreciably the estimates of age effects on diagnosis and intervention. Study analyses continued to show decreased overall psychiatric diagnosis in older patients (with adjustment for positive questionnaires) and decreased intervention in older patients (with adjustment for whether a diagnosis or a new diagnosis was made.) Covariates were associated with nonsignificant decreases in rates of psychiatric diagnosis and intervention in most analyses.

Age-Related Differences in Categories of Diagnosis

Exploratory analyses showed significant differences in the likelihood of psychiatric diagnoses in two of the five disorder categories included in the PRIME-MD instrument.

Patients who were older than age 65 were less likely to be diagnosed with a mood disorder ($\chi^2 = 11.10$, $P < .001$) or

Table 1. Relationship of Age Group to Instrument Use, Diagnosis, and Intervention

	<65 Years (n = 952)	\geq 65 Years (n = 1135)	Odds Ratio (95% CI) (Patients \geq 65 vs <65)*	P
% visits questionnaire used	71.2% (n = 678)	73.1% (n = 830)	1.1 (0.8, 1.2)	.64
% visits CEG used	12.7% (n = 121)	13.1% (n = 149)	1.03 (0.74, 1.43)	.15
% visits with any psychiatric dx	26.0% (n = 247)	13.0% (n = 147)	0.42 (0.32, 0.53)	<.001
% visits with new psychiatric dx	6.4% (n = 61)	4.9% (n = 55)	0.70 (0.48, 1.01)	.057
% visits with intervention	15.8% (n = 150)	6.8% (n = 77)	0.39 (0.27, 0.55)	<.001

* All GEE analyses were adjusted for the presence of support for screening and study week. Analyses accounted for intra-physician correlation of observations.

Table 2. Relationship of Age Group to Intervention (Adjusted for Psychiatric Diagnosis)

	<65 Years	≥65 Years	Odds Ratio (95% CI) (Patients ≥65 vs <65 Years)	P
% intervention when psychiatric dx made*	54.3% (134/247)	43.5% (64/147)	0.62 (0.43, 0.91)	.015
% intervention when psychiatric dx not made†	2.3% (16/705)	1.3% (13/988)		
% intervention when a new psychiatric dx made‡	63.9% (39/61)	58.2% (32/55)	0.36 (0.26, 0.51)	<.001
% intervention when a new psychiatric dx not made§	12.5% (111/891)	4.2% (45/1080)		

* No. of visits with intervention, given diagnosis/No. of visits with psychiatric diagnosis.

† No. of visits with intervention, given no diagnosis/No. of visits without psychiatric diagnosis.

‡ No. of visits with intervention, given new diagnosis/No. of visits with new psychiatric diagnosis.

§ No. of visits with intervention, given no new diagnosis/No. of visits without new psychiatric diagnosis.

|| GEE analysis adjusted for whether a psychiatric diagnosis was made during the visit and study week. The analysis accounted for intra-physician correlation of observations.

¶ GEE analysis adjusted for whether a new psychiatric diagnosis was made during the visit and study week. The analysis accounted for intra-physician correlation of observations.

probable alcohol abuse ($\chi^2 = 43.54$, $P < .001$) than younger patients. However, there were no significant differences in rates of anxiety and somatoform diagnoses. ($\chi^2 = 2.57$, $P = .109$; $\chi^2 = 2.69$, $P = .100$), respectively.) No patients, young or old, had an eating disorder diagnosed in this study, and only 15 (0.7%) of the study patients were diagnosed with somatoform disorder.

In this veteran population, significant numbers of post-traumatic stress disorder (PTSD) diagnoses were noted by PCPs (1.5% of patients) even though PTSD was not specifically included in the PRIME-MD instrument. Younger patients had higher rates of PTSD diagnosis than patients aged 65 years and older ($\chi^2 = 21.8$, $P < .001$).

DISCUSSION

Older and younger patients did not differ in the rates of PRIME-MD questionnaire or interview use; however, older patients were less likely to be diagnosed with a psychiatric

disorder and were less likely to receive a provider intervention than younger patients.

Older patients had decreased rates of positive screens on PRIME-MD. However, they also had decreased rates of overall psychiatric diagnosis in analyses that adjusted for the presence of highly positive screening questionnaires, and they had decreased rates of intervention in analyses that adjusted for whether a psychiatric disorder or a new psychiatric disorder was made during the study visit.

Decreased psychiatric diagnosis among older patients in this study may reflect a lower prevalence of psychiatric disorders among older patients or underdiagnosis of past or ongoing psychiatric disturbances. Epidemiologic studies have found a lower prevalence of psychiatric disorders among older individuals in the community,^{49,50,51} but studies in primary care have been more mixed, with some studies indicating increased prevalence,^{5,8} and others decreased prevalence, of emotional symptoms and psychiatric disorders in older patients.^{12,14}

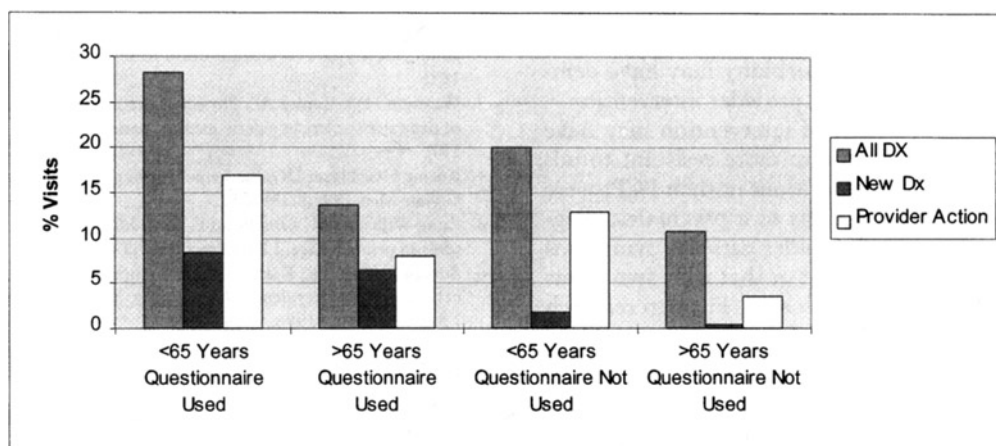


Figure 1. Diagnosis with and without use of the screening questionnaire. The interaction between questionnaire use and age group is not significant.

Decreased rates of psychiatric diagnosis in this study may also have been caused, in part, by decreased screener sensitivity in older patients. One of the two questions in the self-administered PRIME-MD depression screen asks about "feeling down, depressed, or hopeless." Older depressed patients may have been more likely than younger patients to present with anxiety, irritability, and somatization rather than depressed mood, theoretically making them less likely to endorse this item in the depression section of the questionnaire and, perhaps, more likely to endorse items in the anxiety or somatoform sections. However, Spitzer et al. examined agreement between mental health providers' diagnoses and PRIME-MD diagnoses in patients across a wide age range (mean age = 55 years; range 18–91) and found good levels of agreement and acceptable sensitivity for all diagnostic modules. (Spitzer et al. included geriatric patients but did not report agreement separately for these individuals).

It is difficult to explain the diagnostic differences observed in this study solely on the basis of either underlying prevalence or decreased screener sensitivity. We found decreased psychiatric diagnosis in older patients even when analyses adjusted for highly positive screens. This suggests that providers responded differently to older and younger patients' endorsements of multiple symptoms and that diagnostic disparities were not caused simply by differences in symptom prevalence. Inasmuch as the PRIME-MD screens specifically for and notes subthreshold disorders — disorders with fewer symptoms or symptoms of shorter duration than threshold psychiatric disorders — diagnostic disparities were also not caused simply by a preponderance of subthreshold syndromes among older patients. This finding is in accord with previous studies reporting a lower recognition of psychiatric disorders in older patients with positive psychiatric screens.²⁹ Our exploratory analyses indicate that providers were significantly less likely to diagnose depressive disorders and alcohol abuse in their older patients.

Our data also showed differences in the rates of provider intervention between older and younger patients, differences that remained when analyses were adjusted for whether patients received "any" or a "new" psychiatric diagnosis during the study visit. Decreased intervention may have occurred for several reasons. Older patients likely had more concurrent medical conditions than younger patients, and busy providers may have focused on these medical conditions rather than attending to accompanying psychiatric disorders. Our covariates for medical comorbidity were associated with nonsignificant decreases in provider diagnosis and intervention. More robust measures of comorbidity may have demonstrated an even greater impact on provider intervention.

Alternatively, decreased rates of intervention may have occurred because older patients were more resistant to addressing underlying psychiatric conditions or their PCPs were more concerned about their reactions to a psychiatric diagnosis. PCPs may also have felt that older patients' symptoms would be less responsive to treatment or that their symptoms were understandable given recent losses. Further research needs to clarify how providers prioritize their tasks during patient visits and the factors that determine whether they choose to address or to not address recognized psychiatric disorders.

Finally, we found that support for PRIME-MD implementation and actual completion of the PRIME-MD instrument increased rates of diagnosis and provider intervention

in older and younger patients but did not alter the association between older age and decreased diagnosis and intervention. Thus, unlike Shapiro et al., we did not find screening to be more effective in older patients than in younger patients.²⁹

Our study had several limitations that may limit its generalizability. The study was conducted in one site, a VAMC general medical clinic, and the study population was predominantly male and poorer than many primary care populations. Patterns of diagnosis and intervention may differ in settings with more women or higher patient educational levels. Also, many of the study providers were residents or mid-level practitioners rather than experienced clinicians in the community. Trainees and mid-level practitioners may have been more likely than experienced practitioners to attend to concurrent medical conditions and to overlook or delay addressing coexisting psychiatric disorders. We were also able to adjust only partially for the effects of medical comorbidity. The VHA began routine recording of diagnoses for outpatient visits in the outpatient file only in late 1996, and the pharmacy-based Chronic Disease Score (CDS) is in the early stages of adaptation for VA populations.⁵² Future research that uses more robust comorbidity measures, such as diagnosis-based measures or the CDS, will provide further clarification of the role of concurrent medical illnesses in study findings.

SUMMARY

Most older individuals receive mental health treatment in primary care, and a lower rate of psychiatric diagnosis and intervention in these patients is of concern. The use of a diagnostic and screening instrument, the PRIME-MD, increased rates of diagnosis and intervention in older patients, but it did not eliminate age-related disparities. Psychiatric screening in primary care is likely to increase treatment and may improve the care of older patients; however, it will need to be accompanied by other interventions to modify provider practices and eliminate age-related disparities.

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