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Family Medicine and Internal Medicine Physicians' Attitudes and Beliefs About Depression: Implications for Treatment Decisions

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Abstract

Studies have long shown that some patients receive less than optimal care for depression in primary care settings. However, few studies have uncovered factors that predict and explain this deficiency. The authors administered a survey to 408 primary care physicians. They examined how physicians' attitudes (eg, feeling positively or negatively about treating depression in their patients), physicians' beliefs (eg, beliefs about what their patients think and prefer in terms of depression care), and demographic characteristics (independent variables) predicted optimal depression care (dependent variable). Using logistical regression analyses, they identified differences in treatment decisions between family and internal medicine physicians. Physicians' specialty and race (family physicians and white physicians were more likely to prescribe a medication) were unique determinants of whether the physician treated depression by prescribing medication; physicians' specialty and race (family physicians and nonwhite physicians were more likely to provide office-based counseling) were unique determinants of whether the physician treated depression by providing office-based counseling; physicians' beliefs about depression care and physician age were unique statistically significant determinants of whether the physician treated depression by providing a referral to a mental health specialist. These findings help clarify how physicians' specialty and beliefs about depression care influence treatment. In addition, the results in this study suggest that there are differences between family and internal medicine physicians in terms of their practice patterns and beliefs in types of treatment that patients would be willing to receive. Implications for future research on primary care depression treatment are discussed.

Keywords

depression, physicians' attitudes and beliefs, electronic case vignettes, depression care, primary care setting

More than 32 million adults in the United States will experience depression in their lifetimes, and more than 13 million will endure its effects in any given year.[1] Depression often co-occurs not only with other mental disorders such as anxiety and substance use[1,2] but also with chronic physical conditions, particularly in older patients.[3] Because of the associated physical symptoms, patients often see primary care physicians about both their physical and mental health symptoms.[4] Therefore, primary care physicians are in a critical position to identify depression early in its course and to provide ongoing care to their patients presenting with depression symptomatology.[5]

However, many patients with signs and symptoms of depression who are seen by primary care physicians frequently leave the office undiagnosed and untreated for their depressive symptoms.[4] Moreover, of those whose depression is recognized and treated by primary care physicians, many receive less than adequate treatment. For example, Cabana et al[6] asserted that several studies have found that only 19% to 49% of depressed primary care patients have received appropriate depression care according to the guidelines of the Agency for Healthcare Research and Quality, which are directed toward primary care physicians. In a study by Kessler et al,[1] just 41.3% of the respondents in general medical treatment received adequate care; this figure included those who received care from a mental health specialist in addition to general medical care. Of those who received care from only a general medical practitioner, the treatment was considered adequate in merely 9.6% of the cases.[1]

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Therefore, given that many primary care physicians often fail to recognize and optimally treat depression, uncovering the factors that may influence depression recognition and optimal depression care is an important area of study.[4,7] Factors such as physicians' attitudes and beliefs about depression care (eg, patients' willingness to accept a diagnosis of depression and patients' willingness to adhere to treatment recommendations for depression) may explain variation in the recognition and treatment of depression care.[8,9] The current study examined the extent to which physicians' attitudes and beliefs—in addition to physicians' characteristics and specialty—influenced how they would treat a hypothetical moderately depressed patient in their everyday practices.

Background

Physicians' Attitudes About Depression Care

Attitudes about depression care involve the extent to which physicians feel positively or negatively about treating depression in their patients, specifically in terms of their attitudes about the potential effectiveness that certain treatments may have in helping patients with depression,[7,10-12] as well as the time and effort it may take and the potential burden it may add to physicians.[13,14] As described in this section, other aspects of physicians' attitudes, beliefs, and perceptions that may influence or be associated with physicians' depression care include physicians' knowledge and beliefs regarding their patients' view of depression and mental health treatment (eg, patients' resistance to a diagnosis of depression and patients' willingness to adhere to treatment recommendations for depression).

In a study conducted by Koenig[12] on physician attitudes toward treating depression in older adult inpatients with comorbid heart failure, less than one third of the 422 physicians surveyed reported the belief that antidepressants would significantly help their patients, and only 15% of respondents believed that psychiatrists could help much. Some of the factors that seemed to keep physicians from treating depression in their older patients were patient resistance, lack of time, uncertainty of the diagnosis, costs of depression treatments being too high for patients,[5] and possible interactions of the patients' medications with antidepressants.[12] On the other hand, LaRocco-Cockburn et al[14] found that 84% of their 282 obstetrician-gynecologist respondents thought that depression treatment is effective. When Gallo et al[7] examined the attitudes of 184 internists and 138 family physicians, they found that family physicians had higher levels of confidence in the effectiveness of antidepressant medications to relieve acute symptoms, prevent future relapse, and decrease side effects than did internists.

Kramer et al[4] asserted that physicians' perceptions of the time and resources that depression care takes are a great barrier to depression care quality. Similar results were revealed in a study by LaRocco-Cockburn et al,[14] which found that time constraints perceived by physicians negatively affected the likelihood that those physicians would screen for, diagnose, and treat patient depression. LaRocco-Cockburn et al found in their study of obstetrician-gynecologists that most of the 282 respondents reported positive attitudes toward screening for depression; the likelihood of their screening for depression was increased when their positive attitudes were combined with ease of screening and high concern for patients' mental health. These results suggest that having easily attainable screening materials may increase the screening behavior of physicians.

Physicians' confidence in their ability to treat depression seems to play an influential role in depression care. Shao et al[9] found that general physicians "were more confident in their ability to prescribe antidepressants (62% vs 25%), were more likely to report that treating depression is rewarding (71% vs 39%), and were less likely to prefer treating depression by referral to a psychiatrist (58% vs 79%)" than were nongeneralists.

Physicians' Beliefs About Depression Care

Physician beliefs about depression care include both beliefs about patients' roles in their depression and beliefs about what their patients think and prefer in terms of depression care. Shao et al[9] conducted a study involving 306 participants, of whom 31% were nongeneralists, 45% were generalists, and 24% were psychiatrists. The authors found that 40% of specialty (nongeneralist) and general physicians believed that patients cause the continuance of their depression and that they "exaggerate their symptoms," although very few of these physicians believed that patients cause their depression initially. Ninety percent of the group of nongeneralist physicians thought their patients' depression was "understandable" considering the situations of their patients medically and socially. It is unclear the extent to which these reported beliefs influenced the physicians' depression care.

Another important physician belief is whether their patients are open to a diagnosis of depression. Of the respondents from a study by Shao et al,[9] more than 50% believed that patients were open to receiving a diagnosis of depression, and nearly 75% thought that patients would willingly take medication. Conversely, Gallo et al[7] found that one fourth of the 322 internist and family physician respondents in their study believed that patients and their families were disinclined to accept that they have depression. The study found that in most cases, if those patients would not accept a diagnosis, their physicians would respect their wishes not to be referred to a mental health specialist.[7] Nutting et al[15] also

found that the 12 primary care physicians in their study perceived patient opposition to diagnosis and treatment to be the most difficult barriers they faced in their treatment of depression. This resistance was associated with patients breaking appointments, general resistance, and the weight of the burden on patients. Williams et al[5] found similar results when they surveyed 1350 physicians composed of family physicians, general internists, and obstetrician-gynecologists; more than half of the sample in the study perceived patient unwillingness to be referred to a mental health specialist or to take medication (or felt uneasy about taking medications even if they agreed to do so).

Whether patients experience discomfort at being asked about depression is another important physician belief. In the study of physicians by Baik et al,[16] all participants believed that patients with whom they were less familiar were more reluctant to share personal details that are needed to diagnose depression. The authors also found that to not upset patients, the physicians believed that they should rule out all possible medical conditions before mentioning depression as a possibility, even if they suspected it. LaRocco-Cockburn et al[14] found from their sample of 282 obstetrician-gynecologist respondents that 24% believed that their patients would not want them to ask about depression, and 13% believed their patients thought questions about depression and other mental health questions were irrelevant to their appointments. Finally, results from a recent collaborative intervention study[11] found improvement among family and internal medicine physicians' attitudes, beliefs, and guideline-concordant care for depression in primary care patients, although there was no change in the physicians' recognition of depression or detection of suicidal risk in their patients.

Purpose of the Current Study

The current study sought to determine the extent to which physicians' attitudes and beliefs—in addition to physicians' characteristics and specialty—were associated with how participants would treat a hypothetical moderately depressed patient in their everyday practices. Thus, our primary research question was the following: to what extent are physician attitudes and beliefs about depression care, demographic characteristics, and specialty predictive of depression treatment as measured by prescribing an antidepressant, providing office-based counseling, or providing a referral to a mental health care specialist?

Method

Research Design

The current study was a cross-sectional survey study of 404 primary care physicians (family medicine and general internal medicine physicians) who completed structured interviews and a paper-and-pencil survey regarding depression care. We collected data for this study in conjunction with data collected for a larger study funded by the National Institutes of Mental Health, "Physicians' Decisions for the Depressed Medically Ill," between October 2002 and March 2004. A comprehensive, detailed discussion related to the larger study's research design and study procedures has been published previously.[17] The current study was approved by the Georgetown University Medical Center Institutional Review Board.

Study Population and Eligibility

The current study's nationally representative sample of physicians was derived from a database provided by the American Medical Association. The database included physician name, address, phone number, gender, race/ethnicity, type of practice, specialty, and board certification status. Only those physicians who self-reported their specialty as family or internal medicine and were currently practicing general medicine full-time (as measured by 25 hours or more per week in direct patient care) within our sampling region (Primary Metropolitan Statistical Areas of Washington, DC, and Baltimore, Maryland) were invited to participate in the study.

Using the above criteria, we sent mailings to 942 physicians inviting them to participate in the study. Thirty-six physicians returned the refusal postcards, indicating a refusal to participate. Of the 906 remaining physicians, 418 (46%) were eligible and agreed to participate, 340 (38%) were ineligible and were eliminated, and 148 (16%) refused by phone to participate. Of the 418 physicians who were surveyed, 14 (3%) were later removed from the data pool (ie, their interview records were discarded) because of large amounts of missing data or significant technology problems.

Procedure

After the physicians agreed to participate, research assistants traveled to physicians' practice sites to conduct the structured interview based on an interactive electronic case vignette of a patient with a moderate level of depression. The electronic case vignette included all information that traditionally appears in a paper case vignette (demographics, presenting complaint, medical history); however, the vignette information provided for the current study was presented directly from the patient who appears on the laptop screen. In addition to the structured interview, the demographic questionnaire and paper-and-pencil survey were administered in the physician's office and completed in 45 to 55 minutes. Informed consent was obtained, and physicians were compensated $125 for their contribution to the study.

Table 1. Modified Version of the Clinicians' Attitudes and Beliefs Scale[8]

	Family		General	
Scale Item	Mean	SD	Mean	SD
Beliefs subscale	4.96	1.76	5.62	2.29
My patients do not want me to investigate their depression problems	1.84	0.85	2.14	0.97
I am intruding when I ask depression questions	1.40	0.65	1.65	0.94
My patients feel questions about depression in their lives are irrelevant	1.75	0.76	1.88	0.85
Attitude subscale	10.75	4.33	10.97	4.52
Evaluating and treating depression problems will cause me to be more overburdened than I am	2.23	1.14	2.31	1.22
I am too pressed for time to routinely investigate depression issues	2.12	1.11	2.28	1.13
One reason I do not consider information about depression is the limited time I have available	2.09	1.08	2.26	1.18
Consideration of depression problems will require more effort than I have to give	1.87	0.99	2.02	1.04
Investigating issues of depression decreases my efficiency	2.22	1.27	2.08	1.14

Family, family medicine physicians; General, general internal medicine physicians. Scores can range from 3 to 15 for the beliefs subscale and 5 to 25 for the attitudes subscale. Higher scores reflect more negative beliefs and attitudes regarding depression treatment.

Measures

Demographic questionnaire. This instrument, created for the study, asked participants to describe themselves (gender, birth date, race, and specialty), their practice patterns (administrative duties) and environment (group vs solo practice), and their certification status (board certification). We also asked participants about the percentage of time spent each week providing direct patient care.

Paper-and-pencil attitudes and beliefs scale. Physicians' attitudes and beliefs for depression care were captured from a modified version of the Clinicians' Attitudes and Beliefs Scale (see Table 1) created by Main et al.[8] Our rationale for modifying the Main et al scale was informed by the following 4 considerations: First, we were concerned about physician-participant burden and study participation rates. Given that physicians are a research population often hard to recruit, we considered the disadvantages of an exceedingly lengthy study protocol. Second, we selected the least number of questions from a widely used instrument that best reflected the literature base regarding physicians' attitudes and beliefs (see "Background" section). Third, we presented the selected items to researchers familiar with the relevant literature on physicians' attitudes and beliefs and depression care. We were able to reach consensus among the experts on the selected items. Fourth, we considered the extent to which the items selected appear to cohere and be reliable (as measured by Cronbach's alpha internal consistency estimates).

Using a 5-point scale ranging from (1) *strongly disagree* to (5) *strongly agree*, physicians responded to 5 questions regarding their current attitudes about depression care. A sample item for the physicians' attitudes subscale includes the following: "I am too pressed for time to routinely investigate depression issues." Similarly, using the same 5-point scale, physicians responded to questions regarding their current beliefs about patients' views about depression care. Three items composed the physicians' beliefs subscale (see Table 1). A sample item for this scale includes the following: "My patients do not want me to investigate their depression problems." Cronbach's alphas for the current study sample were .82 and .74 for the physicians' attitudes subscale and the physicians' beliefs subscale, respectively.

Semistructured interview. A manualized interview guide was used to standardize the interview protocol process for all participants. The protocol was a 2-step process: (1) Participants were presented with 1 electronic CD-ROM case vignette of a patient with explicit depression developed for the current study, and (2) after participants received information from the patient, the interview was conducted, which included a series of questions about their treatment recommendations (eg, "what are your treatment recommendations for this patient?").

Dependent and Independent Variables

Physicians' treatment decisions (medication, office-based counseling, and referral) for depression care served as the

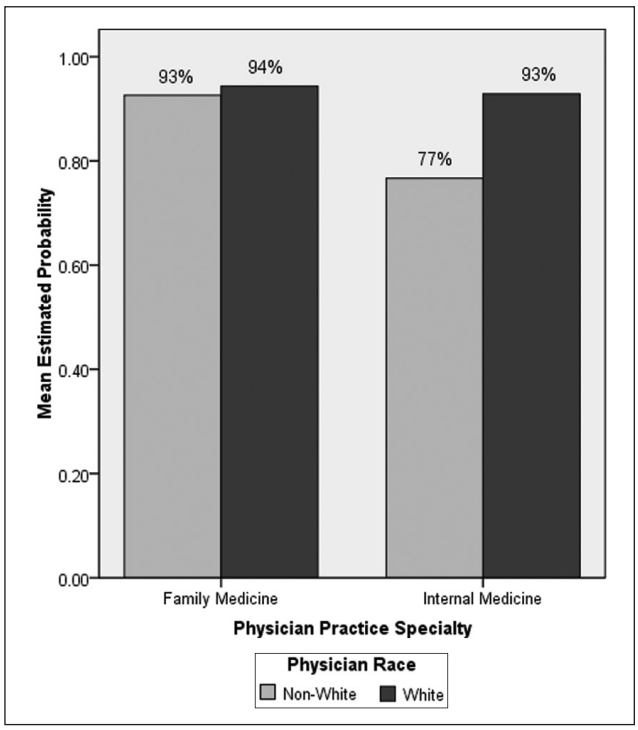

Figure 1. Medication treatment based on physician specialty and race.

dependent variables, and physicians' attitudes and beliefs (as measured by the modified Main et al[8] scale), physician characteristics (age, gender, race), and specialty (family medicine, internal medicine) served as the independent variables.

Statistical Analysis

All analyses were performed with SAS, version 9.1 (SAS Institute, Cary, North Carolina). First, descriptive data for all study variables were examined. Second, hierarchical logistic regression analyses were conducted with each of the 3 outcomes (medication, office-based counseling, and referral). The first step of each of the logistic regression analyses consisted of physician demographics and specialty, the second step added the physicians' attitudes factor to the model, and the last step added the physicians' beliefs factor to the model. The magnitude of each significant effect from each logistic regression model was expressed as an odds ratio (OR) and 95% confidence interval (CI).

Results

Study Sample: Physician Characteristics

Participants were 406 primary care physicians. They ranged in age from 29 to 88 years, with the mean age being 47.66 years (SD, 10.15). Race and ethnicity were diverse, with participants reporting non-Hispanic white (48%, n = 194), non-Hispanic black (33%, n = 133), Asian American (12.4%, n = 50), or other race/ethnicity (6.6%, n = 27) as their primary racial/ethnic identifications. Ninety percent of the study sample was board certified, and specialty was almost evenly divided among the study participants (51% [n = 206] family medicine, 47.5% [n = 192] internal medicine, and 1.5% [n = 6] other specialty).

Table 2. Hierarchical Logistical Regression: Factors Predicting Depression Treatment (Medication)

Independent Variable	Odds Ratio	95% Confidence Interval	*P*
Step 1: physicians' demographics and specialty			
Age	0.79	0.56-1.13	.20
Gender	1.09	0.52-2.22	.82
Race/ethnicity	2.71	1.31-5.61	.01
Specialty	2.57	1.27-5.18	.01
Step 2: physicians' attitudes[a]	1.00	0.93-1.07	.95
Step 3: physicians' beliefs[b]	0.87	0.74-1.03	.10

[a]The model improvement from the first step was significant (χ^2_5 = 20.70, *P* = .0009). Significant at the .01 level.
[b]The model improvement from the first step was significant (χ^2_6 = 23.42, *P* = .0007). Significant at the .01 level.

Relations Between Attitudes and Beliefs and Depression Care

Model 1: Medication treatment. Table 2 illustrates the results of the first hierarchical logistic regression analysis for depression care (as measured by medication treatment). Step 1 explores the effects of the physicians' demographic and specialty type on depression care, which was significant (χ^2_4 = 20.70, *P* < .0004); step 2 reveals a statistically significant model improvement when the physicians' attitude factor was added (χ^2_5 = 20.70, *P* < .0009). Finally, the model improvement at step 3, which included the physicians' beliefs factor (χ^2_6 = 23.42, *P* < .0007), was also significant. Examining the unique contribution of the individual variables revealed that although physician attitudes and beliefs did not uniquely influence depression care, both physician race (OR, 2.71; CI, 1.31-5.61; *P* = .01) and specialty (OR, 2.57; CI 1.27-5.18; *P* = .01) were significantly related to prescribing an antidepressant for depression treatment. As illustrated in Figure 1, family medicine and white physicians were more likely to prescribe a medication than were internal medicine and nonwhite physicians.

Table 3. Hierarchical Logistical Regression: Factors Predicting Depression Treatment (Office-Based Counseling)

Independent Variable	Odds Ratio	95% Confidence Interval	*P*
Step 1: physicians' demographics and specialty			
Age	0.95	0.72-1.25	.69
Gender	1.20	0.69-2.09	.51
Race/ethnicity	0.53	0.31-0.89	.02
Specialty	1.92	1.15-3.22	.01
Step 2: physicians' attitudes[a]	0.96	0.91-1.02	.17
Step 3: physicians' beliefs[b]	0.95	0.82-1.09	.45

[a]The model improvement from the first step was not significant ($\chi^2_5 = 11.84, P = .04$). Significant at the .01 level.
[b]The model improvement from the second step was significant ($\chi^2_6 = 12.43, P = .05$). Significant at the .01 level.

Model 2: Office-based counseling treatment. Table 3 demonstrates the results of the second hierarchical logistic regression analysis for depression care (as measured by office-based counseling treatment). Step 1 explores the effects of physicians' demographic and specialty type on depression care, which was significant ($\chi^2_4 = 9.93$, $P < .04$); step 2 reveals a significant model improvement when the physicians' attitudes factor was added ($\chi^2_5 = 11.84$, $P < .04$). Finally, the model improvement at step 3, which included the physicians' beliefs factor, was statistically significant ($\chi^2_6 = 12.43$, $P < .05$) as well. Once again for this model, 2 physician characteristics were statistically significant and uniquely related to providing office-based counseling for depression treatment: physician specialty (OR, 1.92; CI 1.15-3.22; $P = .01$) and physician race (OR, 0.53; CI 0.31-0.89; $P = .02$). Figure 2 reveals family physicians were more likely to provide counseling than were internal medicine physicians. In addition, white physicians were less likely to provide counseling than were nonwhite physicians.

Model 3: Referral to mental health care provider. Finally, Table 4 illustrates the results of the third hierarchical logistic regression analysis for depression care (as measured by referral to a mental health specialist). Step 1 explores the effects of physicians' demographic and specialty type on depression care, which was significant ($\chi^2_4 = 31.67$, $P < .0004$); step 2 reveals a statistically significant model improvement when the physicians' attitude factor was added ($\chi^2_5 = 32.10$, $P < .0001$). Finally, the model improvement at step 3, which included the physicians' beliefs factor, was statistically significant as well ($\chi^2_6 = 38.11$, $P < .0001$). For the final model, both physician age (OR, 0.58; CI 0.46-0.75; $P = <.0001$) and the physicians' beliefs factor (OR, 0.86; CI 0.77-0.97; $P = .02$) made a statistically significant unique contribution. As shown in Figure 3, older physicians (age 60 years and up) were the least likely age group to refer to a mental health specialist. Higher scores on the beliefs subscale (or more positive beliefs about depression care) were associated with a referral to a mental health specialist. The more negative the physicians' beliefs about depression, the more likely the physician-participants were willing to refer.

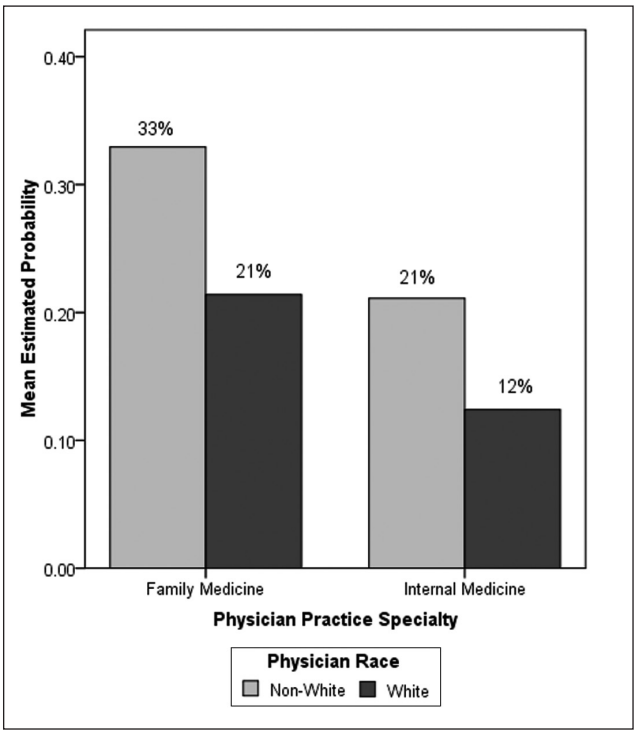

Figure 2. Counseling treatment based on physician specialty and race.

Discussion

Physicians' Attitudes and Beliefs and Treatment Decisions

Overall, our study findings revealed that physicians' beliefs regarding patients' comfort with receiving depression care were associated with whether physician-participants decided to provide a referral to a mental health care provider. The more negative beliefs the physicians held about patients' views of depression, the more likely they were to refer. However, physicians' beliefs did not have a significant effect on whether they would prescribe a medication or recommend office-based counseling as a treatment option for patients diagnosed with depression.

Our study results found no support for a significant relation between physicians' attitudes and any of the 3 treatment

Table 4. Hierarchical Logistical Regression: Factors Predicting Depression Treatment (Referral)

Independent Variable	Odds Ratio	95% Confidence Interval	*P*
Step 1: physicians' demographics and specialty			
Age	0.58	0.46-0.75	< .0001
Gender	0.73	0.46-1.16	.18
Race/ethnicity	0.93	0.60-1.44	.73
Specialty	1.07	0.69-1.64	.77
Step 2: physicians' attitudes[a]	0.98	0.94-1.03	.51
Step 3: physicians' beliefs[b]	0.86	0.77-0.97	.02

[a]The model improvement from the first step was significant (χ^2_5 = 32.10, *P* = .0001). Significant at the .01 level.
[b]The model improvement from the second step was significant (χ^2_6 = 38.11, *P* = .0001). Significant at the .01 level.

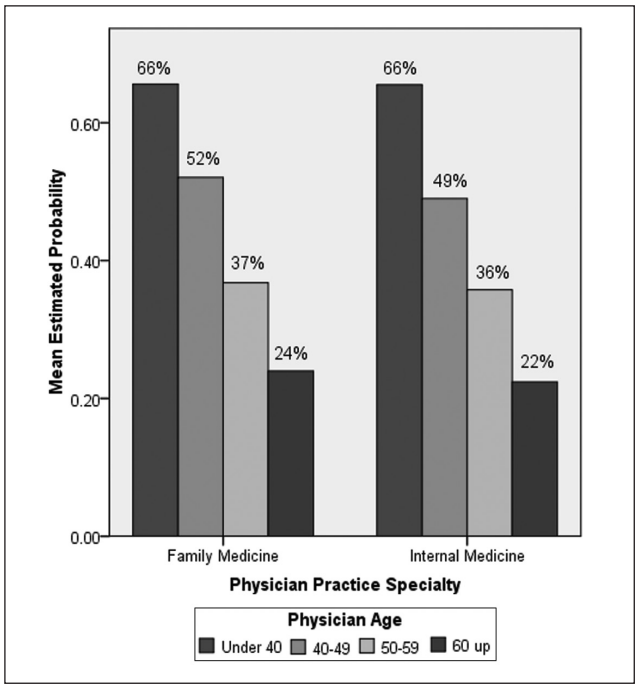

Figure 3. Referral based on physician specialty and age.

decisions explored in this study. Because the relation between physicians' positive attitudes regarding depression and treatment behavior has been established in other studies,[8] this was an unexpected finding. One explanation that may account for our negative findings could be related to our measure of physicians' attitudes. More specifically, given that we modified the original scale, the resultant revised scale may not be a valid measure of physicians' attitudes and thus attenuated the results of the current study. Moreover, our results are also inconsistent with the findings of Upshur and Weinreb's[11] recent study, which reported a significant link between primary care physicians' attitudes and practice patterns related to depression care. However, that study was limited by a small sample size and research design.

Physicians' Characteristics and Specialty and Treatment Decisions

Physicians' characteristics, such as age and race, and reported specialty all influenced participants' treatment decisions for depression care in primary care settings. Specifically, for medication treatment, both physician race and specialty influenced this treatment recommendation. Similarly, for office-based counseling, both physician race and specialty influenced this treatment recommendation. Similar to other studies, we found that family medicine physician-participants were more likely to provide medication treatment and office-based counseling as compared to their internal medicine physician counterparts. Our results regarding specialty confirm previous findings reported by Gallo et al[7] and Koenig.[12] In the study of internists and family physicians by Gallo et al, the authors found a relation between medication treatment and physicians' willingness to conduct office-based counseling for depression. Finally, in our study, age was the only physician characteristic—in addition to physicians' beliefs—that influenced a referral to a mental health care provider. This age-effect finding is different from the findings of Gallo et al. They reported that physician specialty but not age had a significant effect on whether the physician-participants would refer patients to a mental health provider.

Although physicians' characteristics (such as age and race) are not modifiable factors, these significant associations shed some light on which physicians may be in need of additional training on optimal depression care in primary care settings. Other research has described the influence of physician characteristics on treatment decisions.[18,19] For example, in Koenig's[12] study, physician race was related to whether the physician would refer an older depressed patient to a mental health care provider. Some of these demographic findings related to depression care have been reported elsewhere.[17]

Study Limitations

There are several limitations to the current study that must be considered in conjunction with the study's findings. First, the current study used a self-report survey to assess physicians' attitudes and beliefs about depression care. Second, the scale that was used to capture physicians' attitudes and beliefs was modified from a longer scale initially developed by Main et al.[8] As previously mentioned, it remains unclear if our modified scale was a valid measure of

physicians' attitudes and beliefs. Therefore, our findings related to these constructs ought to be interpreted with caution. Third, the data in the present study were all derived from a single-source information design. Finally, although the current study supports some of the findings found among other studies, specifically the relations between attitudes and beliefs and treatment decisions, the study employed a cross-sectional survey design, and thus no conclusions regarding causal relationships can be established.[20]

Conclusion

In conclusion, the current findings are helpful in clarifying what factors are related to depression treatment in primary care settings. We recognize that there are many other factors that may explain physicians' treatment decisions in primary care. However, the current study generated results comparable to other studies as well as new findings among a sample of 404 racially diverse physician-participants. Future research should continue to explore other factors (eg, lack of reimbursement) that may decrease the quality of care (ie, adherence to evidence-based guidelines) that depressed patients receive in primary care settings. Nascent research that is directed toward investigating the effectiveness of physicians and patients co-creating treatment plans may reveal important findings that may be transportable to optimal depression care (ie, guideline-concordant care) in primary care settings. Similarly, studies targeting depression treatment interventions related to physicians' beliefs could lead to improvements in depression care.[11,21] Other depression education programs such as the one developed by Learman et al,[20] if widely adopted, could potentially improve physicians' beliefs and knowledge regarding medication, office-based counseling, and collaborative care models involving referrals to and collaboration with mental health care providers.[22]

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

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