Two-Minute Mental Health Care for Elderly Patients: Inside Primary Care Visits

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(See editorial comments by Drs. Charles Reynolds, Mario Cruz, Carrie Farmer Teh, and Bruce L. Rollman)

OBJECTIVES: To assess how care is delivered for mental disorders using videotapes of office visits involving elderly patients.

DESIGN: Mixed-method observational analysis of the nature of the topics discussed, content of discussion, and the time spent on mental health.

SETTINGS: Three types of settings: an academic medical center, a managed care group, and fee-for-service solo practitioners.

PARTICIPANTS: Thirty-five primary care physicians and 366 of their elderly patients.

MEASUREMENTS: Videotapes of 385 visits covering 2,472 diverse topics were analyzed. Coding of the videotapes identified topics, determined talk time, and coded the dynamics of talk.

RESULTS: Mental health topics occurred in 22% of visits, although patient survey indicated that 50% of the patients were depressed. A typical mental health discussion lasted approximately 2 minutes. Qualitative analysis suggested wide variations in physician effort in providing mental health care. Referrals to mental health specialists were rare even for severely depressed and suicidal patients.

CONCLUSION: Little time is spent on mental health care for elderly patients despite heavy disease burdens. Standards of care based on a count of visits "during which a mental health problem is discussed" may need to be supplemented with guidelines about what should happen during the visit. System-level interventions are needed. **J Am Geriatr Soc 55:1903–1911, 2007.**

Key words: mental health; primary care; geriatric patients; time use; quality of care

Mental illnesses are common in the rapidly growing population of older adults in the United States. Despite the availability of safe and efficacious treatments, mood disorders remain a significant cause of diminished quality of life and mortality from comorbid medical conditions or suicide.[1,2] Primary care practitioners deliver most depression treatment, especially for elderly patients.[3] People aged 65 and older represent only 13% of the population but account for 20% of the reported suicides.[4] It has been reported that between 9% and 33% of suicide completers with major depression were receiving antidepressants at the time of death and that fewer still received adequate doses of antidepressants.[5,6] The low rate of antidepressant prescription in patients committing suicide probably reflects insufficient diagnosis and treatment of depressive disorders. It is urgent—for the individual as well as for society—that diagnostic and psychopharmacological treatment be improved.[6] Improvement in effective detection and treatment of mental illnesses in primary care could prevent suicides and avert other adverse consequences of mental illnesses.[7]

Depression treatment practice guidelines call for at least four office visits, with counseling on mental health problems lasting at least 5 minutes.[8] They also advocate educating patients about treatment options, including medication indications, mechanisms of action, costs, risks, and benefits.[9] Although treatment guidelines have been developed based on clinical research and expert opinion, the "meaning" of these standards in terms of routine medical practice is not well understood. Detailed aspects of guidelines are rarely applied in quality assessment studies.[10,11]

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If a patient is said to have had four primary care visits in 6 months in which mental health subjects were discussed, what is understood to have occurred?

A large literature showed patient–physician communication and how well physicians perform the three primary functions of the medical interview: data gathering, developing and maintaining a therapeutic relationship, and informing the patient of the diagnosis and implementing the treatment plan.[12–15] One simple question that has not been addressed directly is how much time is spent on mental health during primary care visits. The literature is also silent on how well that time is used to perform those primary functions. The overarching goal of this study was twofold: first, to assess, using quantitative and qualitative methods and in naturalistic settings, the time spent on mental health, and second, how that time is used. Accomplishing the first goal will shed light on how much time is spent on mental health in primary care visits. Qualitative analyses performed in this study address the second goal, therefore beginning to fill the void on how well the primary functions of the medical interview are performed.

A few specific hypotheses were tested. First, it was hypothesized that time spent on mental health would be longer in primary care office visits than time spent on biomedical topics. The perception that it takes more time to address mental health in office visits being one reason for not addressing mental health motivated this hypothesis.[16,17] The reference group used to make this case has not been made explicitly in the literature. Biomedical topics were chosen to serve as the comparison group, because they are the mainstay of primary care and the key reasons stated by patients for visiting primary care physicians. Next, to understand whether the composition of visits with and without a discussion about mental health is different, how common specific co-occurring mental health topics were was examined. It was further hypothesized that characteristics of patient, physician, practice setting, and in particular, racial and sex concordance between patient and physician influence not only the likelihood of having a mental health discussion, but also the amount of time allocated to mental health. The ultimate objective was to apply the findings to improve treatment of mental disorders in primary care.

METHODS

This study analyzed videotapes that focused on communications between elderly patients and physicians based on a convenience sample of office-based physicians and their patients.[18] The medical practices included an academic medical group in the Southwest, a private managed care group in a Midwest suburb, and a number of fee-for-service solo practitioners in a Midwestern inner city. Physicians and patients were informed that the videotapes would be used to study and improve patient–physician interaction and would be archived for use by future researchers. All relevant institutional review boards approved the research protocol.

The recruitment effort resulted in a sample of 35 physicians, all of whom had completed their training at the time of the initial study. Patients had to be aged 65 and older to be eligible for the original study and had to identify the participating physician as their usual source of care and provide informed consent. Specifically, patients were identified from primary care physicians' patient panels provided by office managers of the participating clinics. When these patients came to the participating clinic for a visit, regardless of the nature of the visit (e.g., acute upper respiratory infection or routine examination for diabetes mellitus or hypertension), they were invited to participate in the study. If they expressed willingness to participate, informed consent was obtained, and their visits were taped. Research assistants also approached patients whom they believed would be willing to allow the taping of additional visits, based on their perception of positive feedback from some patients, and asked them to continue in the study with taping of follow-up visits. Physicians were not asked to recommend patients for multiple taping. Patient participation rates ranged from 61% to 65% at the three sites. The final sample contained 385 videotaped visits. Nineteen of the visits were multiple visits between a few patient–physician dyads, of which seven contained discussions of mental disorders. Sensitivity analyses excluding these visits obtained similar results as the full sample. The analytical results reported in this article contain the small number of repeat visits.

Videotape Coding

Coding of the videotaped visits identified topics, determined talk time, and coded the dynamics of talk. Several steps were taken to prevent coder drift and ensure reliability. First, training of coders involved more than 8 hours of initial didactic instruction and independent coding of 10 training visits by each coder. Intercoder reliability was calculated after data on the 10 training visits were collected. Second, each coder chose an additional five training visits and coded them in a second round of training to improve reliability. Third, weekly team meetings were held to address coding-related questions.

Following a previous study,[19] interrater reliability was ensured by randomly selecting 10% of the visits to be recoded by a second coder. To ensure intrarater reliability, 5% of the visits coded by each coder were selected for repeated coding by the same coder. The intraclass correlation (ICC) was 0.98 for visit length, 0.89 for total talk time, 0.84 for patient talk time, 0.86 for physician talk time, and 0.95 for number of topics. Intrarater ICC ranged from 0.84 to 1.00 on number of topics and 0.98 to 0.99 on all other numerical variables.

Identifying Topics

Topics were identified in the spirit of the multidimensional interaction analysis system, which codes an interaction directly from an audio or video recording of the visit based on topics sequentially introduced by the patient or physician.[14] Coders first carefully reviewed the entire video to determine the nature and number of topics raised. A topic was regarded as a matter that required a specific response from either party.[14] Thirty-six mutually exclusive topics pertaining to six major content areas were identified: biomedical, mental health, personal habits, psychosocial, patient–physician relationship, and other. Table 1 provides the list of major content areas, topics within each area, and their frequencies. Figure 1 illustrates the conversation flow in a sequential topic map of one visit and the grouping of

Table 1. Major Content Areas and Topics

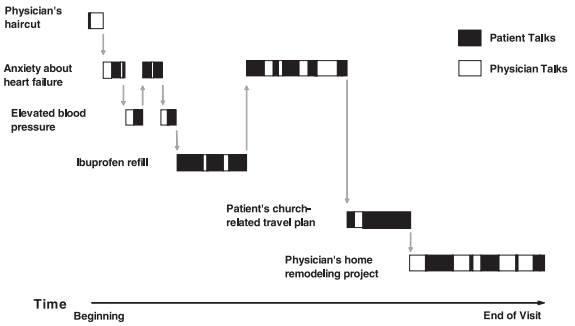
Content Area	N
A. Biomedical	
1. History, symptoms, medical conditions	618
2. Muscular and skeletal aches and pains	284
3. Gynecological and genitourinary problems	35
4. Prognosis, health status	38
5. Tests and diagnostic procedures	93
6. Therapeutic intervention, appointments, referrals	87
7. Findings on the physical exam, test results	210
8. Self-administered medications, compliance	263
9. Prevention (mammogram, influenza shots)	133
B. Mental health	
10. Bereavement, grief, mourning, death of others	12
11. Pain, suffering, concerns, worries	17
12. Depression, not limited to clinically diagnosed depression	37
13. General anxieties, emotional distress, or other mood disorders	35
C. Personal lifestyle and habits	
14. Diet, food, weight	90
15. Exercise	26
16. Alcohol	5
17. Sex	1
18. Cigarette, cigar, pipe smoking, chewing tobacco	34
19. Other addictions, not elsewhere classified	1
20. Sleep	19
D. Psychosocial	
21. Healthcare system: participation in the study; maneuvering the system	68
22. Activities of daily living; functional assessment	18
23. Work and leisure activities: vacation, work, recreation, and social activities	61
24. Money and benefits: Medicaid, Medicare, health insurance	24
25. Caregiving, concerns about being a burden on the caregiver	2
26. Physical home and environment	13
27. Family and significant other	75
28. Death: patient's own mortality, include suicide thoughts	9
29. End-of-life care, living will, power of attorney	2
30. Religion	1
31. Age	10
E. Patient–physician relationship	
32. Physician personal life	41
33. Intellectual exchange	1
34. The patient–physician relationship	24
F. Other	
35. Small talk; e.g., the weather, clothing, hair	98
36. Other	27

Adopted from the Multidimensional Interaction Analysis system.[14]

discussions into topics. This visit will be discussed in more depth later on.

Talk Time and Topic Length

The unit of analysis was topic. Talk time was the length of time a person spoke on a topic. Each person's talking time before the other started talking was recorded and then summed to form the total length of time each person spoke. Topic length was measured by total time—talking or in silence as long as both parties were in the room—elapsed between the beginning and end of all instances of a topic. It was observed that physicians sometimes multitask, as is the case when a physician is discussing symptoms and performing a physical examination at the same time. In such cases, discussion goes back and forth between the original topic and the process of the examination. The multidimensional interaction analysis in which physical examination was not coded as a topic was followed. For example, in Figure 1, in which sequential introduction and continuation of topic threads were mapped, the first instance of "anxiety over heart failure" topic occurred while the physician was measuring blood pressure.



Topic	Topic Number*	Time (Minutes)		
		Patient Talk	MD Talk	Topic Length
1. Physician's haircut	35	0.03	0.25	0.28
2. Anxiety about heart failure	13	1.38	1.18	3.98
3. Elevated blood pressure	7	0.30	0.28	1.32
4. Ibuprofen refill	8	1.15	0.20	1.62
5. Patient's church-related travel plan	23	1.42	0.20	1.75
6. Physician's home remodeling	32	1.53	0.72	2.40

*Correspond to topic numbers in Table 1.

Excerpt from the first instance of the second topic:

D: (inaudible). What you been up to?

P: I have just been crying my eyes out.

D: Why?

P: I don't know. I can't help it.

D: Why?

P: And then people ask me how I am, I just cry.

D: Oh, (pause.) Well I am not going to ask you that anymore. (pause 2 seconds.) Why? Do you think you are puny?

P: No.

D: No. Do they care, the people that ask?

P: Yep.

Note: P: Patient, D: Doctor

Figure 1. Sequential topic map of one visit.

Another phenomenon, called the entanglement of discussions on different topics, is also prominent in primary care office visits, in which multiple biopsychosocial issues could be brought up. This conversational phenomenon was accounted for by capturing the number of "instances" in which a topic was discussed. Therefore, if a physician or patient continued to discuss a topic that was raised earlier during the physical examination, the time would be attributed to that topic. If other topics separated the discussions on one topic during the physical examination and before or after physical examination, such discussions were counted as separate instances of the same topic. Back to the example in Figure 1, the second topic had three instances.

Survey Data

Patients were surveyed for demographics and the purpose of the visit before the visit. After the taping of the visit, patients were given the Medical Outcomes Study 36-item Short Form Survey (SF-36).[20] Physicians completed the sociodemographic survey at the beginning of the study. Physicians were not informed of patient SF-36 results nor did they have access to patient survey data.

MIXED-METHOD ANALYSES

The frequency of discussion of mental health topics during these visits was quantitatively examined and, if present, the length of time spent on mental health by each party and the frequency of discussion and time spent on medications. These key variables were compared across patient and physician sociodemographic characteristics using univariable logit and survival analysis methods. Videotapes that contained mental health topics were further qualitatively analyzed.

Preliminary quantitative analyses showed a lack of significant relationship between SF-36 mental health scores and the probability of mental health discussion and the length of mental health discussion. Therefore, the selection of videotapes for qualitative analysis was based on the length of time spent on mental health discussions rather than on SF-36 scores. The analysis began with the two visits that contained the median-length mental health discussion then was expanded in both directions by including visits whose mental health topics were just longer or shorter than the median length. After 19 shorter visits were analyzed, it seemed that mental health discussions that were shorter than the median were generally of poor quality (i.e., poor provision of the functions outlined previously[12]), although merely spending more time did not translate directly to higher quality. A similar number of visits that were longer than the median was analyzed. It was found that these visits did not differ in substantial ways in turns of the effort physicians made and the depth of discussion. To examine whether much longer visits were any different, the longest visits were analyzed, working down toward the median. Altogether, 31 visits that had mental health discussions that were longer than the median, three visits that were the median length, and 19 that were shorter than the median were analyzed. The analysis was stopped when no new information emerged from reviewing additional visits.[21]

A set of visits was independently reviewed each week (MTS, MAC). The mental health topic within the visit was identified, how the discussion began was noted (e.g., who initiated, how it was initiated), and what verbal and nonverbal behavior was observed (e.g., what kind of language was used in presenting the emotional distress or anxiety, how the patient's grooming was, whether the patient expressed suicidal thoughts or death wishes). With respect to physician behaviors, it was noted whether the physician evaluated the patient's mental health status (using a formal instrument such as the Geriatric Depression Scale or informally) and whether referral to mental health specialty services (psychiatrist, psychological counseling, or social worker) was suggested or made. Whether psychotropic medication was discussed was noted and, if so, for how long and the content of the discussion, (e.g., name and dose of the medication, anticipated therapeutic effects, any side effects experienced, duration of the medication therapy, and cost of the medication). The spatial relationship between the physician and patient, the warmth of the interaction, the level of empathy expressed by the physician, and the rapport between them were also observed. At the end of the discussion, the interaction was rated on how well it functioned to accomplish the three primary goals outlined previously.[12] A record was kept of discussions on each case.

During weekly conference calls (MTS, MAC), individual assessments were compared and discussed. When it was realized that both researchers were increasingly hearing each other say, "This is another case in which ___," it was realized that the return in new information was diminishing from reviewing additional visits. This iterative and consensus-based process enabled saturation to be reached.[21] All authors reviewed the themes.

RESULTS

Study Participants

Thirty-five physicians participated after giving informed consent. Patients were aged 65 and older, identified the participating physician as their usual source of care, and provided informed consent. Patient participation rates ranged from 61% to 65%. After excluding 67 visits because of poor audio or video or incomplete survey data, 385 visits were used in the study. Sociodemographic data on study participants are presented in Table 2.

The physician sample was similar in sex composition to national data[22] but has fewer physicians in the extremes of the age distribution. African-American physicians were overrepresented (17%, vs 6% nationally). The characteristics of the patient sample were similar to those of elderly patients nationally in age distribution, sex, and self-reported wealth,[23] but patients were more educated and less likely to be married.[24]

Composition of Visits

Table 3 displays the frequencies of other topics in visits with mental health discussions. In comparing the compositions of visits with and without discussion of mental health topics, it was found that visits with discussion of mental health topics were more likely also to have a topic on patient–physician relationship than visits without discussion of mental health topics ($P < .05$). The probabilities of having

Table 2. Characteristics of Study Population

Characteristic	Value
Physician (n = 35)	
Age, mean	48
Male, %	77
Race, %	
White	83
African American	17
Practice setting, %	
Academic medical center	29
Managed care group	60
Inner city fee-for-service solo practices	11
Specialty, %	
Internal medicine	40
Family medicine	25
Other	35
Patient (n = 367)	
Age, mean	74
Male, %	34
Race, %	
White	80
African American	13
Other	7
Education, high school or more, %	43
Medical Outcomes Study 36-item Short Form Survey, %	
Physical health	39
Physical role functioning	39
Social role functioning	34
Emotional role functioning	45
Bodily pain	41
General health	44
Vitality	48
Mental health	42

other co-occurring topics were not statistically different in visits with or without mental health discussion.

Time Allocated to Mental Health

At least one mental health topic was discussed in 84 visits involving 27 physicians and 74 patients. Six visits had discussion of two mental health topics. Discussion of mental health topics lasted from 14 seconds to 17 minutes and 16 seconds (median 2 minutes). Fifty percent of patients had SF-36 mental health scores less than 42, suggesting major depression.[25] Of these patients, mental health discussions occurred in only 25% of the visits. Of patients with SF-36 mental health scores of 42 or greater, 19% had a mental health discussion.

Table 4 displays the percentage of visits with discussion of mental health topics and the median length of mental health discussion at the topic level and by the physician and the patient. Median talk time was used because of the skewed distribution. Because of the small sample size, univariable logit regression analyses were used to test the differences between key participant characteristics. The results showed that female patients were more likely to have a visit containing some discussion about mental health (27%) than male patients (12%, $P<.01$). Sex concordance was also found to have a significant effect on the likelihood of having mental health discussions. Female–female physician–patient pairs had a higher likelihood of mental health discussion (32%) than male-physician–female-patient or female-physician–male-patient dyads (each 24%, $P<.05$) or male-physician–male-patient dyads (13%, $P<.01$).

Table 3. Major Contents of Visits with and without Discussion of Mental Health Topics

	With		Without	
Major Content Area	Topics, n (%)			
Biomedical	352	(59)	1,407	(74)
Mental health	91	(15)	0	(0)
Lifestyle and personal habits	38	(6)	125	(7)
Psychosocial	76	(13)	231	(12)
Patient–physician relationship	21	(4)	46	(2)*
Small talk	22	(4)	103	(5)
Total number of topics	600		1,912	

* $P<.05$.

The median length of discussion of mental health topic was 2 minutes, during which physicians spoke 46 seconds and patients spoke 1 minute and 10 seconds. In contrast, the median biomedical topic lasted 1 minute and 27 seconds, during which physicians spoke 37 seconds and patients spoke 34 seconds. The length of discussion of mental health topics was approximately 33 seconds longer ($P<.01$) than discussion of biomedical topics. Although physicians talked approximately 9 seconds longer on mental health than on biomedical topics, the difference in means was not statistically significant. Patients talked approximately 35 seconds longer on mental health topics, and the difference in means was significant ($P<.01$).

Table 4 also shows results of univariable survival analysis of the factors associated with the length of mental health discussions. It was found that the mental health discussion with non-white patients was significantly shorter (1.7 minutes) than that of white patients (2.2 minutes, $P<.01$). Physicians also spent less time discussing mental health with non-white patients (0.4 minutes) than with white patients (0.9 minutes, $P<.01$).

Across the board, the discussions at the inner-city solo practices, where all of the patients and physicians were African American, were shorter than the ones occurring at the academic medical center ($P<.01$). No statistically significant differences were found between the academic medical center and the managed care group. Furthermore, racial concordance played a role in the amount of time spent discussing mental health. White-physician–-nonwhite-patient pairs had the longest length of mental health discussions (3.0 minutes, vs 2.1 minutes for white–white dyads, $P<.05$), and African-American dyads had the shortest length (1.6 minutes, $P<.01$). In addition, non-white patients received less time of physician's verbal communication than white patients (0.8 minutes), whether they were with white physicians (0.4 minutes, $P<.05$) or African-American physicians (0.3 minutes, $P<.01$). Because of some small cell sizes, this study was underpowered to ad-

Table 4. Percentage Visits with Mental Health Topics and Amount of Time Spent on Them

Characteristics	Visits in Which Mental Health Topics Were Discussed, %	Median Mental Health Discussion		
		Topic Length	Physician Talk	Patient Talk
Total sample	22	2.0	0.8	1.2
Patient				
Male (control)	12	1.2	0.5	0.7
Female	27**	2.3	0.8	1.3
White (control)	23	2.2	0.9	1.2
Non-white	16	1.7**	0.4**	1.1
Medical Outcomes Study 36-item Short Form Survey mental health score				
≥42 (control)	19	1.6	0.6	1.0
<42	25	2.3	1.0	1.5
Nonacute reason for visit (control)	22	2.0	0.8	1.4
Acute visit	19	1.6	0.8	0.8**
Physician				
Male (control)	20	2.3	0.8	1.3
Female	28	1.8	0.6	1.0
White (control)	22	2.2	0.8	1.2
African American	17	1.7	0.7	1.1
Internal medicine (control)	20	1.8	0.8	1.0
Family medicine	26	2.6	0.9	1.8
Practice setting				
Academic medical center (control)	28	2.6	0.9	1.8
Managed care group	20	2.0	0.8	1.1
Inner-city solo practice	9	1.6**	0.3**	1.0**
Racial concordance				
White physician–white patient (control)	22	2.1	0.8	1.2
White physician–non-white patient	25	3.0*	0.4*	1.8
African-American physician–white patient	50	3.2	1.1	2.1
African-American physician–non-white patient	8	1.6**	0.3**	1.0**
Sex concordance				
Male physician–female patient (control)	24	2.5	0.9	1.5
Male physician–male patient	13**	1.2	0.4	0.7
Female physician–female patient	32*	1.7	0.5	1.0
Female physician–male patient	7	4.5	1.2	3.1**

* $P<.05$.
** $P<.01$, univariable logit regression was used to test the significance of differences between categorical characteristics on the probability of having a mental health discussion in any visit. Univariable survival analysis tested the difference(s) in the length of discussions.

dress the question of racial concordance more rigorously. Therefore, interpretation must be cautious.

How Time on Mental Health Was Used

The burdens of mental illnesses were high in these patients. Six patients expressed a death wish, and many more alluded to being profoundly sad, depressed, or suicidal. Three main themes of physician behavior emerged. A few sample cases illustrate these themes below.

Theme 1: Took the Time to Investigate the Disease, the Person, and the Lived Life

Case A involved a 69-year-old white man (Patient A) and his physician (Physician A). Patient A had seen Physician A for 2 years. His SF-36 mental health score was 35, which suggested severe major depression. He had suicidal ideation for 6 months, since his wife had entered a nursing home. A friend had unexpectedly died approximately 40 days before. Patient A's stepson was his only social contact. When Physician A asked Patient A how things were, Patient A responded that he was a total disaster and broke into tears. Physician A explored carefully and confirmed that Patient A was depressed and suicidal. Patient A described his plan to use a "ready to go" revolver in the bathtub to prevent mess.

After assessing Patient A's suicidal plan, Physician A left the room for 15 minutes. Upon his return, he secured a "no suicide contract," gave an antidepressant prescription, gave him the name of a psychiatrist, and asked him to see him. The length of the visit was 41 minutes, of which 17 minutes were spent on Patient A's mental health.

Some physicians would recommend inpatient psychiatric care for Patient A.[26] If that was not available, Physician A's options might be limited. Minimally, however, the gun should have been removed, because suicide is impul-

sive, and evidence of effectiveness of "no suicide contracts" is mixed.[27–29] Additional steps could de-escalate the situation until psychiatric care was available. Examples include breaking confidentiality and contacting the stepson because of the presence of a suicide plan and asking the patient to visit the physician or a social worker daily for a brief check. In summary, Physician A did well in gathering information, establishing a therapeutic relationship, and informing the diagnosis, but not in planning and executing an evidence-based treatment plan for a patient in the highest-risk group for suicide: white, male, elderly,[4] and with little social support.[30]

Theme 2: Allocated Time to Gathering Information, Recognized Mental Disorder, Gave Inadequate Treatment

Case B consists of three interactions between a female patient and a male physician. Patient B was the secretary of a national women's organization that focuses on helping girls succeed. The time allocated to mental health in each visit was 9, 5, and 11 minutes, respectively. Over approximately 7 months, Patient B was sequentially prescribed paroxetine hydrochloride (10 mg for 6 weeks), fluoxetine hydrochloride (10 mg for 2 weeks), venlafaxine hydrochloride (37.5 mg for 6 weeks), and bupropion hydrochloride (unknown dose for $\sim$ 4 weeks) and taken off of lorazepam, which she had taken for a long time. Her SF-36 mental health score was 39.

Further observation of Physician B's behavior indicated that he lacked knowledge and empathy in delivering mental health care. First, his assessment was inadequate. Although he examined her gait and balance, he did not evaluate her mental status or mental health, which can be done with instruments such as the Mini-Mental State Examination and the Geriatric Depression Scale. Second, the apparently familiar relationship between them cannot be described as therapeutic. In the presence of a socially active elderly woman who was anxious about losing her memory and balance, Physician B showed little empathy or regard.[31] Third, treatment was inadequate and deviated from guidelines. For instance, low dose and short course of the antidepressants could have rendered these efficacious medications ineffective.[32] Furthermore, stopping lorazepam abruptly could increase withdrawal symptoms, potentially compounding anxiety and causing an increase in blood pressure. Despite the deficiencies, these visits would have been deemed guideline-concordant if only the general measurement of visit frequency and the time spent on mental health had been applied.[8] Without any treatment or referral for specialty mental health care for her anxiety at the end of the series of visits, remission for her would be unobtainable.

Theme 3: Patient Indicated Emotional Distress, but Physician Did Not Follow Up

Case C, consisting of five consecutive visits between a female physician and a female patient, is an example of perfunctory and dismissive treatment of a patient's emotional distress. Patient C was hospitalized to receive a stent after percutaneous transluminal coronary angioplasty. During the first recorded visit, a week after her hospital discharge, she was deeply concerned and still upset by the traumatic experience. Two minutes and 40 seconds were spent during the first visit on her distress over her heart. During the second visit, Patient C inquired about whether stents were guaranteed to work, because her hairdresser had warned that 6 months was a critical time for stent failures. Physician C responded, "Do you want me to get you a warranty?" Even though Patient C wept and openly expressed despair, no formal assessment of her mental health was done. Figure 1 displays a segment of the fifth visit during which Physician C asked, "Do you think you are puny?"

Although the time and depth of discussion on mental health were limited, extensive discussion about Physician C's home remodeling took place (Figure 1), arguably at the expense of acknowledging Patient C's concerns and providing her the information she desperately wanted. Physician C's paternalistic model of medical practice did not alleviate Patient C's suffering.[33] Patient C's SF-36 mental health score changed from 44 at the first taped visit to 21 12 months later, a decline indicative of severe worsening of major depression. This is a case in which the 2-minute mental health care clearly failed, because Patient C left the visits with her major depression neither evaluated nor treated. Such omission could impede her healing from the ischemic heart event.[33,34]

DISCUSSION

Little time—2 minutes per visit—is spent on mental health during primary care office visits, despite heavy disease burden from mental disorders in study participants. An important finding from this study is that, just because a physician has seen a patient with a mood disorder for an appropriate number of visits and prescribed a psychotropic agent or even multiple agents, the appearance of adherence to current guidelines does not necessarily mean that the patient received good mental health treatment. This finding has policy implications for pay-for-performance practices. If performance review is based on claims data, Physician B would have received a passing grade for seeing the patient at least four times and spending 5 minutes or more in each visit addressing mental health concerns and prescribing antidepressants. Even the performance of Physician C, who did not identify depression, would not appear inappropriate, because she did not make a diagnosis. Indeed, qualitative methods seem particularly appropriate, because it is necessary to see what the problem is to judge the adequacy of the physician response. In other words, currently there is no effective means of determining the appropriateness of mental health care in primary care.

One caveat remains with respect to the possibility that the physician would be seeing the patient repeatedly over time and that the nature of the time and care taken in the visit was being judged without the whole picture being seen. Only part of the care that the patient was getting from this physician was seen. Nevertheless, it is meaningful to quantify the encounter and address it with qualitative methods. As was shown, Cases B and C contained multiple visits over time in which similar process and contents of care were observed across the visits. Nevertheless, the more empirically challenging approach of using the episode of care for mental disorders as the unit of analysis could provide more-definitive information.[35]

Although the length of discussion on mental health is significantly longer—33 seconds longer—than on biomedical topics, the additional time is attributable to longer patient talk time, rather than physician talk time. Although a short time spent on mental health discussions usually coincides with poorly delivered patient education and absence of empathy, the observed visits with longer time were not necessarily of higher quality. For example, marginalization of patients' suffering in Cases B and C and treatment that deviated from guideline in Case B were observed.

Even conscientious physicians, such as Physician A, whose visits were often more than twice the prevailing visit length, face many obstacles in delivering mental health services to their elderly patients who are depressed and suicidal. Primary care physicians need more instrumental support on how to treat, when to refer, and what to do if they cannot find a competent psychiatrist. Standards of care based on count of visits "during which a mental health problem is discussed" should be complemented with what should happen during the discussion.

Many have advocated increasing payment to primary care physicians as a way of improving the quality of care.[36] There are more questions than answers about this approach. Would primary care physicians spend more time per visit if they were paid more? Would time be better spent (e.g., would more patient education occur) with higher payments? Would funding be better directed at trying to change primary care than enhancing the current model? An alternative would be to pay for mental health case workers and psychiatrists who are part of the collaborative care team as in the Prevention of Suicide in Primary Care Elderly: Collaborative Trial study,[37] the Improving Mood: Providing Access to Collaborative Treatment Study,[38] and a randomized trial to improve the quality of treatment for panic and generalized anxiety disorders in primary care.[39] These are important questions to consider, because financial incentives do not always produce desired outcomes.[40]

Rushed visits have been pointed to as underlying primary care's shortcomings,[36] but short visits may be a symptom rather than a cause of the problem. Not all physicians choose to schedule more patients to meet a target volume. Innovations in the form of electronic medical records, practice management software, and others may yield an opportunity to reorganize practices to be more efficient. Some physicians have adopted these new practice models, stepping out of the "hamster wheel" practice, whereas others have accepted lower incomes to practice differently.[41]

The findings on the effects of race and racial concordance add to a growing literature of research on racial disparities. For example, one study found that the 12-month major depression disorder (MDD) estimates of African Americans, Caribbean blacks, and Non-Hispanic whites were similar, although the chronicity of MDD was higher for both black groups. Furthermore, far fewer of the members of the black groups who met the criteria received any form of therapy for MDD.[42] The findings from the current study provide some unique insights; African-American patients were less likely to have a discussion about mental health during primary care office visits. When mental health topic surfaced, the time that physicians allocated to addressing African-American patient's mental health were much shorter than time spent with white patients. Use caution with these findings, however because of the small sample size.

Our society is aging rapidly, and good geriatric care is critical. This study calls attention to how elderly patients' mental health is addressed in primary care and how much more remains to be improved before the "advanced medical home"—where primary care physicians are responsible for partnering with their patients to assure that all of their health care is managed and coordinated effectively—can be a reality. It also raises concerns about physician payment and organization of health care to address the complex needs of geriatric patients.

This study has several limitations. One pertains to the narrow definition of mental health topics. It is possible that some topics listed under lifestyle or personal behavioral health habits, as well as under psychosocial topics, can be broadly considered to be mental health topics. Therefore, it is possible that the total frequency with which mental health topics were mentioned could have been underestimated, because a somewhat narrow definition of what constituted a mental health topic was used. Another limitation is the lack of control for severity of physical illnesses, because patients were not randomly selected. To the extent that the SF-36 measures did not capture patients' physical health, omitted variables on types and severity of illnesses could have caused bias in the results. Finally, data on nonparticipants were not available; therefore, no information to discern differences, if any, between participants and nonparticipants was available. Nevertheless, the unique insights gained from this study outweigh these limitations.

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