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Mental Health Services Use: Baltimore Epidemiologic Catchment Area Follow-Up

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Abstract

Objective—To examine the patterns of previous and current mental health services use among older adults in the Baltimore Epidemiologic Catchment Area Follow-up. Examination of a recent cohort of older adults is important because patterns of utilization may have changed due to treatment advances, changes in mental health-care services, and greater mental health awareness.

Design—A population-based longitudinal survey.

Setting—Continuing participants in a study of community-dwelling adults who were living in East Baltimore in 1981.

Participants—In all, 1,067 adults for whom complete data were available.

Measurements—Separately, and before the mental health assessments were made, participants were asked about use of health services. Cognitive status and physical health were assessed using standardized instruments. Mental disorders were assessed using the Diagnostic Interview Schedule.

Results—Compared with adults aged 40–59 years in 2004, adults aged 60 years and older were less likely to report specialty mental health services versus general medical care without a mental health component (adjusted odds ratio = 0.28, 95% confidence interval [0.14–0.56]). Multivariate models controlled for potentially influential characteristics including major depression or depression associated with recent bereavement, anxiety disorders, and past use of mental health services.

Conclusion—Adults aged 60 years and older are approximately one third as likely to consult a specialist in mental health compared with adults aged 40–59 years even accounting for other factors associated with differential use of services. Our study strengthens evidence that the primary care remains important for the treatment of psychiatric disorders in the elderly.

Keywords

Older adults; mental health services; longitudinal studies; depression; affective disorders

Previous findings suggest that older adults typically seek mental healthcare services in the general medical (GM) services sector and not in specialty mental health settings.¹ Shepherd et al.² first called attention to the role of the general practitioner in mental healthcare. Subsequent investigations have confirmed that the primary care is an important source of mental healthcare,

especially among older adults.^{3–9} However, examination of a recent cohort of older adults is important because patterns of utilization may have changed due to treatment advances for mental health, changes in mental healthcare services and delivery, and greater awareness of the importance of mental health.¹⁰ A continued understanding of where older adults seek mental health-care has important implications for policy and mental health service programmatic planning.

In the past 30 years, overall rates of use of mental health services have increased. In the 1980s, the Epidemiologic Catchment Area (ECA) study found that among 21.7% of participants aged 18 years and older who met criteria for a mental disorder within 12 months of the interview, only one fifth reported receiving mental healthcare services.¹¹ In the 1990s, the National Comorbidity Survey found that among 26.2% of respondents aged 15–54 years who met criteria for a mental disorder within 12 months of the interview, only one fourth reported receiving mental healthcare services.¹² Most recently, the replication of the National Comorbidity Survey conducted between 2001 and 2003 found that among 26.2% of respondents aged 18 years and older who met criteria for a mental disorder within 12 months of the interview, approximately one third reported receiving mental health services.^{13,14} However, undertreatment of mental disorders remains the greatest among vulnerable groups, including the elderly.¹³

This article differs from previous work on the utilization of mental health services among older adults in several ways. Our investigation is based on the Baltimore ECA cohort and involves community-dwelling adults. Therefore, our study differs from research on mental health services systems that are limited to persons receiving care and may overrepresent persons with persistent disorders.^{15–19} Second, for the Baltimore site of the ECA, all persons in a household aged 65 years and older were interviewed to oversample the elderly. Hence, our investigation includes a large proportion of older adults compared with studies using different age ranges encompassing younger samples.^{12,20} Third, our sample is an analysis of prospective data gathered during the 2004 follow-up of ECA participants and differs from other cross-sectional analyses.^{9,13,14,21–24} An ongoing prospective observational study provides the opportunity for building on previous work²⁵ to examine age and cohort effects. Fifth, we utilized a sample drawn from the United States, which may differ in important ways from samples drawn from other countries.^{26,27}

Our study examines the patterns of mental health service used among the most recent cohort of older adults. We took advantage of the opportunity the 2004 follow-up of the Baltimore ECA study provided to examine the new cohort of older adults and use of specialty mental health services. An examination of a more recent cohort of older adults is important because of notable changes in service delivery, and policies have occurred in the past decade that may have modified patterns of mental health service use among older adults. We sought to examine whether underutilization of mental health services is still a pressing public health issue and whether primary care remains pivotal for the treatment of mental illness among older adults.

Our first objective was to examine the extent to which utilization of no services, GM care without a mental health component, GM care with a mental health component, and specialty mental health services in 2004 might vary in relation to age. Specifically, we sought to compare the likelihood of receiving GM care without a mental health component to no services; GM care with a mental health component to GM care without a mental health component; and specialty mental health services to general mental healthcare without a mental health component. We hypothesized that adults aged 60 years and older would be less likely to report consultation with a mental health specialist in 2004 compared with adults aged 40–59 years independent of other relevant variables selected *a priori* based on the literature^{25,28} including gender, ethnicity, education, marital status, cognitive status, physical health, major depression

or depression associated with recent bereavement, anxiety disorders, and past use of mental health services. Our second objective was to examine the role of age in relation to patterns of specialty mental health service use in 1993 and 2004. We hypothesized that adults aged 60 years and older would be less likely to report new use of mental health services (no use of specialty mental health services in 1993 but use of specialty mental health services in 2004) versus no use of specialty mental health services (no use of specialty mental health services at both interviews) even after adjusting for other factors associated with differential use of services.

METHODS

Study Sample

Between 1980 and 1983, the National Institute of Mental Health conducted the ECA Study to measure the prevalence and incidence of psychiatric disorders in the general population in five U.S. cities. The ECA study design and methods have been described in detail elsewhere.²⁹ In 1981, the Baltimore site of the Epidemiologic Area Catchment Program^{29,30} (one of five sites selected for the study³⁰) probabilistically sampled 175,211 household residents in Eastern Baltimore. In total, 4,238 participants were selected for participation. Among these, 3,481 persons (82% of persons selected by random sample³¹) completed household interviews. A second wave of interviews was conducted in 1982 among 2,768 of participants interviewed in 1981 (79.5%). From 1993 to June 1996, 1,920 of those interviewed in 1981 (69.4%) were interviewed again³² (because most of the interviews were conducted in 1993, this wave is referred to as “1993”). In 2004 and 2005, 1,071 interviews were conducted among participants interviewed in the previous wave (1993–1996) (55.8%) (because most of the interviews were conducted in 2004, this wave is referred to as “2004”). Data collected in 2004 and data on use of health services collected in 1993 are included in our analysis. Data from 1981 to 1982 were not included in our analysis because our aim was to examine the most recent patterns of service use for older adults (1993–2004). This time frame is significant because it encompasses a period in which the mental health service delivery system underwent significant modification. ECA data were collected in highly structured interviews conducted in a private place, usually the participant’s home. The participants gave permission for future follow-up at the baseline interview, and the Johns Hopkins University Institutional Review Board approved the protocol.

Study Variables

Gender, educational attainment (less than high school or greater than high school), self-identified ethnicity (white or nonwhite), and marital status were assessed by self-report. The number of medical conditions was also acquired by participant’s self-report. Total medical burden was calculated by adding up the number of medical conditions. Consistent with the previous publications,³³ persons with four or more conditions were considered to have high medical burden. The Mini-Mental State Examination, a short standardized mental status examination widely used for clinical and research purposes,³⁴ was used to evaluate cognitive impairment (defined as Mini-Mental State Examination <24). The Diagnostic Interview Schedule (DIS) was used to assess psychiatric disorders within the 12 months before the interview including major depression or depression associated with recent bereavement and anxiety disorders. Persons were considered to have an anxiety disorder if any of the following disorders were present: generalized anxiety disorder, social phobia, agoraphobia, panic disorder, or obsessive compulsive disorder. In 2004, DIS version III-R was used.³⁵

Health Services

Use of medical (physical) and mental health services within the 6 months preceding the interviews were assessed by a standardized set of precoded questions published elsewhere.²⁵ Participants indicating that they had not received care or treatment from an office, clinic, or

emergency room and had not talked with anyone about problems with emotions, nerves, drugs, alcohol, or mental health were classified as no services. Participants indicating that they did receive care or treatment from an office, clinic, or emergency room and but they did not talk with anyone about problems with emotions, nerves, drugs, alcohol, or mental health were classified as GM care without a mental health component. Those who reported using a mental health specialist, mental health center, psychiatric outpatient clinic, drug or alcohol clinic for problems with emotions, mental health, drugs, or alcohol were classified as using specialty mental health services, regardless of whether they also reported using GM services for physical or mental health problems. Participants reporting that they discussed problems with emotions, nerves, drugs, alcohol, or mental health with a medical doctor (except for a psychiatrist) or to any medical persons at a health plan or primary care clinic were classified as GM services with a mental health component.

Participants were sorted into one of four groups based on their pattern of use of specialty mental health services assessed in 1993 and 2004. Grouped in this way, participants were considered to have no use of specialty mental health services if they reported no use of specialty mental health services at both interviews, former use of specialty mental health services if they reported use of specialty mental health services in 1993 but not in 2004, new use of specialty mental health services if they reported no use of specialty mental health services in 1993 but use of specialty mental health services in 2004, and persistent use of specialty mental health services if they reported use of specialty mental health services at both interviews.

Analyses

The sample was first categorized with respect to sector of mental healthcare utilization. Consistent with previous work,^{25,28} the four categories of mental health service utilization were: 1) no services, 2) GM care without a mental health component, 3) GM care use with a mental health component, and 4) specialty mental health services. A descriptive analysis was performed to characterize individuals utilizing services by sector in 2004. Odds ratios (ORs) were calculated to compare the likelihood of receiving GM care without a mental health component to no services; GM care with a mental health component to GM care without a mental health component; and specialty mental health services to general mental healthcare without a mental health component. Models were adjusted for age, gender, ethnicity, education, marital status, cognitive status, physical health, major depression or depression associated with recent bereavement, anxiety disorders, and past use of mental health services in 1993. The last part of our analyses consisted of using multivariable logistic regression models to examine the relationship of the pattern of use of specialty mental health services assessed in 1993 and 2004 among adults aged 60 years and older compared with adults aged 40–59 years in 2004. Sector of health services utilization was the dependent variable in our analyses. Confidence intervals were Wald based with 1 degree of freedom. In all, four participants were excluded with incomplete information on health services use in 2004, leaving a sample size 1,067 for this analysis. For all our analyses, we have set α at 0.01 to denote statistical significance, recognizing that tests of statistical significance are approximations that serve as aids to interpretation and inference. Data analysis was performed using SPSS version 12 (SPSS, Chicago).

RESULTS

Participant Characteristics

The mean age of our study sample in 1993 was 58.8 years with a standard deviation of 12.8 years. The age range was 41–97 years. The participants were 659 whites (62%) and 672 women (63%). Of 1,067 participants, 196 (18%) reported no services use, 742 (70%) reported use of GM care without a mental health component, 38 (4%) reported use of GM care with a mental

health component, and 91 (9%) reported use of specialty mental health services in 2004. Sociodemographic variables, cognitive status, physical health, major depression, or depression associated with recent bereavement, anxiety disorders, and past use of mental health services in 1993 were examined to characterize individuals utilizing services by sector in 2004 (Table 1).

Multivariate Analyses of Use of Health Services

Table 2 shows the adjusted ORs for use of health services according to age and all other covariates measured in 2004 as well as use of mental health services measured in 1993. Adjusted ORs adjust for all other variables in the analysis. Adults aged 60 years and older in comparison with adults aged 40–59 years were more than twice as likely to receive GM care without a mental health component versus no services. Adults aged 60 years and older in comparison with adults aged 40–59 years were approximately one third as likely to receive specialty mental health services versus GM care without a mental health component.

Pattern of Use of Specialty Mental Health Services

Additional multivariable analyses were performed to examine patterns of use of specialty mental health services. The models were adjusted for gender, ethnicity, education, marital status, cognitive status, physical health, major depression or depression associated with recent bereavement, and anxiety disorders. The results for these analyses are presented in Table 3. Persons with new use of specialty mental health services (no use of specialty mental health services in 1993 but use of specialty mental health services in 2004) were less likely to be aged 60 years and older in 2004 than persons who reported no use of specialty mental health services (no use of specialty mental health services at both interviews).

DISCUSSION

The principal finding of our investigation is adults aged 60 years and older compared with adults aged 40–59 years are approximately one third as likely to consult a specialist in mental health even accounting for other factors associated with differential use of services including past services use. Our analysis of prospective data building on previous work^{25,28} indicates that the recent cohort of older adults continue to underutilize specialty mental health services compared with middle-aged adults. Specifically, examination of the patterns of specialty mental health services use assessed in 1993 and 2004 indicates that adults aged 60 years and older are less likely to report new use of specialty mental health services in 2004. Our findings indicate that despite recent treatment advances for mental health, changes in mental healthcare services and delivery, and greater awareness of the importance of mental health in older adults remain unlikely to utilize mental health services.

Before discussing our findings, the results must first be considered in the context of some potential study limitations. First, the multivariate analyses of use of health services is based on participants' reports of psychiatric symptoms in the DIS and their reports of use of mental healthcare services and not on a review of clinical records. Self-reports are subject to bias from imperfect recall, social desirability, and other sources. Second, we are unable to account for differences in access to mental care resulting from disparate health insurance coverage or other factors. Third, we defined GM care as any physician who was not a specialist in mental healthcare, which includes a broad range of physicians (e.g., internists, primary care physicians), and data on physician specialty were not available for this analysis. Fourth, only one community is included in the study. Fifth, selection bias is a potential limitation because, although the initial study was based on a community sample, the follow-up data that we used consisted of all people that could be found and reinterviewed. However, studies based on the

ECA follow-up data have shown little influence of depression at baseline on loss to follow-up.
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Nonetheless, despite limitations, our results deserve attention because we attempted to characterize use of mental health services among the recent cohort of older adults in the Baltimore ECA study. In comparison with middle-aged adults, adults aged 60 years and older were much less likely to use specialty mental health services. The results of our examination of specialty mental health services use is consistent with previous ECA results, indicating that over the past 20 years, older adults continue to underutilize specialty mental health services.^{25,37} Because our prospective data builds on previous work²⁵ and spans approximately a decade of follow-up, our results provide evidence for the stability of these findings despite treatment advances for mental health, changes in mental healthcare services and delivery, and greater awareness of the importance of mental health.¹⁰

Psychiatric disorders were also a strong predictor of both use of GM services with a mental health component and mental health services. However, consistent with previous research, many persons meeting criteria for major depression including depression associated with recent bereavement and anxiety disorders in the past year reported no services or GM services without a mental health component.^{28,38–40} Therefore, persons with psychiatric disorders did not consult with any healthcare professional, demonstrating the need to improve access to mental healthcare for all age groups.

The reasons for the lower use of specialty mental health services among the recent cohort of older adults are probably varied. A lower perceived need for care for mental health problems associated with aging may continue to be present among older adults making it less likely for older adults with mental disorders to seek help.^{41,42}

Although old age may increase the likelihood of exposure to risk factors for the development of psychiatric disorders such as reduced social support,^{43,44} physical impairment,^{45–47} and cognitive decline;⁴⁸ it is important that physicians and patients realize that depression and anxiety are not a standard part of aging⁴⁹ and that adequate treatment of these conditions has significant implications for future health and well-being.⁵⁰ However, increasing age seems to reduce the likelihood of utilization of mental health service suggesting that the risk factors for mental illness, for which older adults experience disproportionate exposure to, may play a role in high rates of underutilization of mental healthcare services by older adults. For example, limited social support networks reduces the likelihood of exposure to social support that promotes the use of mental healthcare services.⁵¹ In addition, treatment of mental health problems competes with multiple physician and patient priorities. Although our analyses adjusted for chronic physical illness, competing demands posed by acute medical conditions and preventive health-care that the doctor must address in a short time may influence whether mental health problems are discussed.⁵² Older patients on fixed incomes may have more difficulty paying the cost of large copayments or other out of pocket costs for mental health services in addition to the high costs of prescription medications.⁵³

Finally, we examined the patterns of use of mental health services over the follow-up period to determine the relationship between patterns of use of mental health services and age. Indeed, new use of mental health services was found to be much less likely among persons aged 60 years and older. Specifically, persons who reported no use of specialty mental health services in 1993 but use of specialty mental health services in 2004 were one third less likely to be aged 60 years and older in 2004 than were persons who reported no use of specialty mental health services at both interviews. In itself, this result implies that little of the new use of mental health services is occurring among older adults.

A major focus in mental health services research continues to be on ways to make specialty mental health services use more accessible to older adults. Effective methods of facilitating entering into the specialty mental health services sector including community education and outreach should be examined. Community organizations and social networks are important resources to consider for interventions development and services research. In addition, to prepare for the increasing need for mental health services for older people,⁵⁴ and to ease the public health burden of disability associated with mental disorders,⁵⁵ we must continue to engage the primary healthcare sector in developing services for older adults. Primary care providers can help a substantial number of older adults with common mental disorders through evidence-based collaborative care programs such as Improving Mood-Promoting Access to Collaborative Treatment or Prevention of Suicide in Primary Care Elderly: Collaborative Trial in primary care settings.^{50,56}

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TABLE 1
Participant Characteristics According to Services Use (n = 1,067)

	No Services (N = 196), N (%)	General Medical Without Mental Health Component (N = 742), N (%)	General Medical With Mental Health Component (N = 38), N (%)	Specialty Mental Health Services (N = 91), N (%)	Total (N = 1,067), N
Sociodemographic variables					
Age					
Age 40–59 years	145 (22)	428 (64)	25 (4)	74 (11)	672
Aged 60 years and older	51 (13)	314 (80)	13 (3)	17 (4)	395
Gender					
Male	86 (22)	276 (70)	6 (2)	27 (7)	395
Female	110 (16)	466 (69)	32 (5)	64 (10)	672
Education					
Less than high school	55 (19)	204 (70)	9 (3)	22 (8)	290
More than high school	141 (18)	538 (69)	29 (4)	69 (9)	777
Ethnicity					
Nonwhite	74 (18)	294 (72)	10 (3)	30 (7)	408
White	122 (19)	448 (68)	28 (4)	61 (9)	659
Marital status					
Married or living with someone	109 (19)	410 (71)	25 (4)	36 (6)	580
Not married or living with someone	81 (18)	310 (68)	13 (3)	52 (11)	456
Cognitive status					
MMSE					
<24	9 (23)	28 (70)	1 (3)	2 (5)	40
24 and higher	167 (18)	633 (70)	30 (3)	76 (8)	906
Physical health					
Medical condition					
Four or more	2 (4)	34 (69)	6 (12)	7 (14)	49
Less than four	194 (19)	708 (70)	32 (3)	84 (8)	1,018
Psychological status					
Criteria					
Met criteria for major depression in the past year	5 (19)	5 (19)	7 (27)	9 (35)	26

	No Services (N = 196), N (%)	General Medical Without Mental Health Component (N = 742), N (%)	General Medical With Mental Health Component (N = 38), N (%)	Specialty Mental Health Services (N = 91), N (%)	Total (N = 1,067), N
Did not meet criteria for major depression in the past year	191 (18)	737 (71)	31 (3)	82 (8)	1,041
Met criteria for an anxiety disorder in the past year	22 (16)	69 (50)	14 (10)	32 (23)	137
Did not meet criteria for an anxiety disorder in the past year	174 (18)	673 (72)	24 (3)	59 (6)	930
Past use of mental health services					
Specialty mental health services within 6 months of Wave 3 (1993)					
Used	4 (7)	31 (50)	3 (5)	24 (39)	62
Did not use	185 (19)	696 (71)	35 (4)	66 (7)	982

Notes: Data gathered from the Baltimore, Maryland Epidemiologic Catchment Area Program Follow-up, 2004. MMSE: Mini-mental State Examination.

TABLE 2
Adjusted Odds Ratios for Service Use According to Personal Characteristics (n = 1,067)

	General Medical Without Mental Health Component Versus No Services, N = 742 Versus 196	General Medical With Mental Health Component Versus General Medical Without Mental Health Component, N = 38 Versus 742	Specialty Mental Health Services Versus General Medical Without Mental Health Component, N = 91 Versus 742
Sociodemographic variables			
Aged 60 years and older (reference group: age 40–59)	2.55 ^a (1.62–3.90), Wald χ^2 = 18.43, <i>df</i> = 1, <i>p</i> < 0.001	0.79 (0.30–2.11), Wald χ^2 = 0.22, <i>df</i> = 1, <i>p</i> = 0.64	0.28 ^a (0.14–0.56), Wald χ^2 = 12.73, <i>df</i> = 1, <i>p</i> < 0.001
Female (reference group: male)	1.34 (0.93–1.91), Wald χ^2 = 2.49, <i>df</i> = 1, <i>p</i> = 0.11	2.62 (0.94–7.31), Wald χ^2 = 3.36, <i>df</i> = 1, <i>p</i> = 0.07	0.85 (0.48–1.50), Wald χ^2 = 0.32, <i>df</i> = 1, <i>p</i> = 0.57
Education less than high school (reference group: > = high school)	0.75 (0.50–1.12), Wald χ^2 = 1.99, <i>df</i> = 1, <i>p</i> = 0.16	0.83 (0.31–2.22), Wald χ^2 = 0.14, <i>df</i> = 1, <i>p</i> = 0.71	0.91 (0.47–1.74), Wald χ^2 = 0.09, <i>df</i> = 1, <i>p</i> = 0.76
Ethnicity: Nonwhite (reference group: white)	1.21 (0.84–1.74), Wald χ^2 = 1.05, <i>df</i> = 1, <i>p</i> = 0.31	0.34 (0.13–0.88), Wald χ^2 = 4.92, <i>df</i> = 1, <i>p</i> = 0.016	0.71 (0.40–1.24), Wald χ^2 = 1.45, <i>df</i> = 1, <i>p</i> = 0.23
Married or living with someone (reference group: not married or living with someone)	1.24 (0.86–1.80), Wald χ^2 = 1.36, <i>df</i> = 1, <i>p</i> = 0.24	2.03 (0.83–4.96), Wald χ^2 = 2.40, <i>df</i> = 1, <i>p</i> = 0.12	0.45 ^a (0.26–0.79), Wald χ^2 = 7.79, <i>df</i> = 1, <i>p</i> = 0.005
Cognitive status			
MMSE: less than 24 (reference group: MMSE >=24)	0.67 (0.27–1.67), Wald χ^2 = 0.74, <i>df</i> = 1, <i>p</i> = 0.39	1.67 (0.18–15.50), Wald χ^2 = 0.21, <i>df</i> = 1, <i>p</i> = 0.65	1.23 (0.23–6.50), Wald χ^2 = 0.06, <i>df</i> = 1, <i>p</i> = 0.81
Physical health			
Four or more medical conditions (reference group: less than 4 medical conditions)	3.40 (0.79–14.68), Wald χ^2 = 2.68, <i>df</i> = 1, <i>p</i> = 0.10	2.88 (0.60–13.98), Wald χ^2 = 1.73, <i>df</i> = 1, <i>p</i> = 0.19	2.34 (0.80–6.89), Wald χ^2 = 2.38, <i>df</i> = 1, <i>p</i> = 0.12
Psychological Status			
Met criteria for major depression in past year (reference group: did not meet criteria for major depression in past year)	0.36 (0.09–1.53), Wald χ^2 = 1.92, <i>df</i> = 1, <i>p</i> = 0.17	20.29 ^a (4.46–92.26), Wald χ^2 = 14.24, <i>df</i> = 1, <i>p</i> < 0.001	7.19 ^a (1.80–28.84), Wald χ^2 = 7.78, <i>df</i> = 1, <i>p</i> = 0.005
Met criteria for an anxiety disorder in past year (reference group: did not meet criteria for an anxiety disorder in past year)	0.77 (0.45–1.31), Wald χ^2 = 0.84, <i>df</i> = 1, <i>p</i> = 0.36	5.46 ^a (2.26–13.21), Wald χ^2 = 14.21, <i>df</i> = 1, <i>p</i> < 0.001	4.33 ^a (2.32–8.06), Wald χ^2 = 21.26, <i>df</i> = 1, <i>p</i> < 0.001
Use of Mental Health Services			
Used specialty mental health services within 6 months of Wave 3 (1993) (reference group: did not use specialty mental health services within 6 months of Wave 3 (1993))	2.84 (0.83–9.63), Wald χ^2 = 2.79, <i>df</i> = 1, <i>p</i> = 0.10	1.62 (0.34–7.73), Wald χ^2 = 0.36, <i>df</i> = 1, <i>p</i> = 0.55	6.55 ^a (3.19–13.44), Wald χ^2 = 26.24, <i>df</i> = 1, <i>p</i> < 0.001

Notes: Data gathered from the Baltimore, Maryland Epidemiologic Catchment Area Program Follow-up, 2004. Variables are adjusted for all other variables in the table. 95% Wald-based confidence intervals with 1 degree of freedom are given in parentheses. Wald χ^2 , degrees of freedom, and *p* values are provided. MMSE: Mini-mental State Examination.

^a *p* < 0.01.

TABLE 3

Association Between Patterns of Specialty Mental Health Services Use Among Adults Aged 60 Years and Older in Comparison With Adults Aged 40–59 Years (n = 1,067)

	Specialty Mental Health Service Use			
	Persistent	Former	New	Never
1993	+	+	–	–
2004	+	–	+	–
Unadjusted OR				
Aged 60 years and older (reference group: age 40–59)	0.55 (0.22–1.40), Wald $\chi^2 = 1.58$, $df = 1$, $p = 0.21$	0.64 (0.31–1.33), Wald $\chi^2 = 1.46$, $df = 1$, $p = 0.23$	0.29 ^a (0.15–0.59), Wald $\chi^2 = 12.21$, $df = 1$, $p < 0.001$	1.00
Adjusted OR				
Aged 60 years and older (reference group: age 40–59)	0.50 (0.15–1.64), Wald $\chi^2 = 1.31$, $df = 1$, $p = 0.21$	0.59 (0.25–1.40), Wald $\chi^2 = 1.40$, $df = 1$, $p = 0.24$	0.27 ^a (0.12–0.60), Wald $\chi^2 = 10.46$, $df = 1$, $p < 0.001$	1.00

Notes: A “+” sign indicates that specialty mental health services use was reported at that interview, whereas a “–” sign indicates that specialty mental health services use was not reported at that interview.

Data gathered from the Baltimore, Maryland Epidemiologic Catchment Area Program Follow-up, 1993–2004. Odds ratios were adjusted for gender, ethnicity, education, marital status, cognitive status, physical health, major depression or depression associated with recent bereavement, and anxiety disorders. 95% Wald-based confidence intervals with 1 degree of freedom are given in parentheses. Wald χ^2 , degrees of freedom, and p values are provided.

^a $p < 0.01$.