Published in final edited form as:

Gen Hosp Psychiatry. 2011 November ; 33(6): 587–593. doi:10.1016/j.genhosppsy.2011.07.006.

Sociodemographic and Clinical Factors Associated with Antidepressant Type in a National Sample of the Home HealthCare Elderly

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Abstract

Objective—The study examined in HHC, demographic, functional and clinical factors by antidepressant type including SSRIs, SNRIs, TCAs and “Other” antidepressants such as bupropion and mirtazapine.

Method—Cross-sectional sample (n= 909) analyzed the 2007 National Home Health and Hospice Care Survey, patients 65 years plus (mean 78.79 years, CI = 77.88-79.69 years) taking one antidepressant.

Results—SSRIs were most commonly used (63.89%) then “Other” antidepressants (14.29%) , TCAs (11.31%) and SNRIs. In a multinomial regression referencing SSRIs, blacks had increased odds of tricyclic use compared to whites (OR = 5.96, CI = 1.85-19.19). . Hispanics had decreased odds of “Other” AD (OR= 0.13, CI= 0.02-0.73) and SNRI use (OR= 0.06, CI= 0.008-0.45) compared to non-Hispanics. HHC elderly taking psychotropic medications besides ADs were less likely to use SNRIs (OR= 0.31, CI= 0.11-0.88) and tricyclics (OR =0.27, CI= 0.08-0.87). Advancing age was marginally associated with tricyclic use (OR= 1.04, CI= 0.99-1.09).

Conclusion—Race/ethnicity and age differences by antidepressant type – including blacks’ increased TCA use, Hispanics decreased SNRI and “Other antidepressant” use, and older elderly increased tricyclic use -- suggests systematic differences in prescribing practice variations including differences by geography, patient preferences, or access to care in the HHC elderly.

Keywords

home healthcare; elderly; antidepressant

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INTRODUCTION

Older persons represent the largest and most active population of health care and medication consumers [1, 2]. Rates of antidepressant (AD) use in the elderly have increased significantly in the last decade indicating an increase in depression detection and treatment in clinical settings, including Home healthcare (HHC) [3-6]. Reports on the HHC elderly have found patterns in the diagnosis of depression by age and in the distribution of ADs by race [4,7]. Elderly blacks have received disproportionately fewer antidepressants compared to whites even when diagnosed as depressed [8-11]. Earlier trends demonstrated that blacks and Hispanics received less good mental health care compared to whites [12-13]. Thus, the findings of differences by race and ethnicity and lack of data regarding mental health care mandate the examination of current antidepressant use in the HHC elderly.

Home healthcare presents an opportunity to address medication management, mental health care and differences in acutely ill elderly patients. Home healthcare is primarily a transitional level of short term care for acutely ill patients; a short term window in which the unmet needs of a patient can be identified and addressed before transitioning to the next stage of care. It is comprised of on average 22 visits by a home healthcare nurse to the patient's home. The Medicare requirement that home healthcare nurses assess the mental status of new admissions, and every 60 days thereafter during home healthcare, provides a targeted setting for intervening to improve depression detection and management. The home healthcare nurse has the opportunity to examine the patient regularly, view the patient's home setting, and identify depression based on the assessment of the patient in the context of their living environment. The nurse can also observe the presence and use of medications in the patient's home, and possibly remediate racial differences in depression detection and treatment [14].

The purpose of this paper was to examine the distribution of types of antidepressants being taken in geriatric HHC patients. We also investigated whether antidepressant type varies systematically by clinical, functional or sociodemographic factors. We analyzed secondary data from the newly released 2007 National HHC and Hospice Care Survey (NHHCS) that was designed to represent the total population of all HHC patients. Our goal was to utilize the NHHCS data to identify potential factors in addition to a diagnosis of depression that may influence treatment of depressed elders with medical co-morbidity.

METHODS

Sample and Measures

The 2007 NHHCS data was collected by the National Center for Health Statistics in the Center for Disease Control (CDC). The NHHCS used a stratified, two stage probability design. In the first stage, agencies were selected within strata defined by type (home health, hospice, or mixed) and geographic location. In the second stage, up to ten current home health care patients or hospice discharges were randomly selected within each agency. Current HHC patients were patients who were on the rolls of the agency as of midnight of the day immediately before the agency interview. Data were collected by the National Center for Health Statistics on these patients through in-person interviews of agency directors or their designated staffs and by review of medical records. Medical records from the HHC referral were used to gather data about patients' age, gender, race, ethnicity, services received, length of time since admission, diagnosis, medications taken, advance directives and other items. Race and ethnicity data, as reported in medical records, may have been based on self report or clinical observations, however, the exact mechanism or breakdown as to how race data was collected was not available. The patient home health module had an overall response rate of 66% [15].

Hospice patients were excluded from this analysis, leaving only HHC patients, 65 years or older, a population of relatively homogeneous clinical need (i.e., patients receiving skilled post-acute care for medical and surgical reasons). As this study focused on the type of antidepressants (AD) among patients taking antidepressants, we reduced the sample to include only patients taking ADs (N= 909). AD medications were identified from the Lexicon plus® by Cerner Multum, the classification system used by the NHHCS. Type of AD was coded as follows: Selective Serotonin Reuptake Inhibitor (SSRI), Serotonin-norepinephrine reuptake inhibitor (SNRI), Tricyclic (TCA) and the “Other” AD group. The “Other” group, the less widely used ADs, included Bupropion, Mirtazapine and other medications approved to treat depression. Monoamine oxidase inhibitors were included among the “Other” group and not in a separate category because of the small sample size of patient use (n = 2). The NHHCS did not provide a percentage breakdown within that group by type of antidepressant. We excluded from the analysis patients taking more than one antidepressant of different types because the findings from this subpopulation (n = 140, 15.40%) may not be generalizable to other HHC patients with depression. Moreover, the data did not allow for a distinction between adding a second antidepressant for hypnotic effects from adding a second antidepressant for treatment resistant cases.

Medications besides antidepressants were classified as psychotropic if approved for the treatment of a psychiatric disorder, with the remaining medications classified as non-psychotropic. Although some of the medications listed as psychotropic prescriptions, including ADs and mood stabilizers, could have been written for non-psychiatric indications (i.e., neuropathic pain, sedation, or as anticonvulsants), we took the conservative approach of classifying all medications that are most commonly used to treat psychiatric disorders as psychotropics and then subdividing them into the most appropriate type based on their primary psychiatric indication.

Psychotropic medications besides ADs were divided into three groups; antipsychotics including phenothiazene antipsychotics, atypical antipsychotics, and miscellaneous antipsychotic agents; mood stabilizers including lithium, valproate, lamotrigine and carbamazepine; and other psychotropic medications (“Other Psychotropics”) including benzodiazepines, miscellaneous anxiolytics, sedatives and hypnotics.

The NHHCS reported current International Classification of Disease, 9th Revision (ICD-9-CM) diagnoses (one primary and up to fifteen secondary) of each patient. Explicit information on the source of these diagnoses was not provided, although typically patient diagnoses were included as part of the physician referral to HHC. In some cases, the diagnoses may have been updated as part of the care process. Documented mood disorders included major depressive disorder, dysthymia, depression NOS and bipolar disorder. A preliminary analyses found no differences in type of AD use by specific mood diagnoses (i.e., major depression, dysthymia, depression NOS and bipolar). The analyses preserved statistical power by grouping these diagnoses into a single category. Although the use of antidepressants to treat bipolar disorder has become controversial, bipolar patients in our sample were frequently treated with ADs during this time period [15].

Psychiatric disorders were considered in broad categories that included, in addition to mood disorders, dementia, anxiety, and psychotic disorders. Because anxiety diagnoses were generally non-specific, the anxiety disorder category was not separated into specific diagnoses. The diagnostic categories were kept broad because small sample size per diagnosis made sub analysis in each diagnostic category not feasible.

Medical morbidity, excluding psychiatric disorders, was represented by the sum of ICD-9 categories of reported diagnoses. Psychotropic medications (excluding antidepressants),

medical conditions and number of psychiatric disorders were tested as the summation of categories or prescriptions per patient, and also by the presence of a single prescription or condition per patient. The indicator of disability was the total number of limitations in activities of daily living; ADLs. Sociodemographic factors included age, gender, race (white, black, other), ethnicity (Hispanic, non-Hispanic), marital status, and living arrangements.

STATISTICAL ANALYSIS

Our analyses used sampling weights to generate nationally representative estimates. We used PROC SURVEY in SAS 9.2 to adjust variance estimation given the sample design (SAS Institute Inc., Cary, N.C.). Rao-Scott chi-square for weighted survey data was used to test the relationship between categorical variables and types of antidepressant (AD) use (SSRI, SNRI, TCA and “Other” ADs). T-tests were conducted to test for significant differences in continuous variables by AD use. We separately compared each factor in a bi-variate analysis by each type of AD, and then in a multinomial logistic regression analysis across all types of ADs. A multinomial logistic regression model of any AD usage included as independent variables, factors that were significantly associated with AD use (with a p-value < 0.10) in the bi-variate analysis. AD use, partitioned into the four types of ADs, was the dependent variable in the multinomial logistic regression model, with SSRI as the reference group for comparisons.

RESULTS

Sample Characteristics

Our analysis of data collected by the CDC’s National Center for Health Statistics included 909 current HHC patients using an antidepressant (AD), representing with sampling weights 290, 870 patients nationwide. The mean age of patients prescribed an AD was 78.89 years (CI = 77.88-79.79). The sample of AD users was 69.86 % female and included the racial groups as follows: white (89.18%), black (8.63%) and of other races (2.19%). The sample of Hispanics was predominately white (89.13%).

Factors Associated with AD Use by Type

Among AD users, the most commonly used type of AD was SSRIs (63.89%) followed by “Other” ADs (14.29%), TCAs (11.31%) and the remaining were SNRIs. In bi-variate analyses (Table 1), ethnicity and race were each associated with a type of AD. Hispanic patients were more likely than non-Hispanics to use SSRIs ($\chi^2 = 23.87$ (1), $p < 0.0001$) and less likely to take “Other” ADs ($\chi^2 = 6.37$ (1), $p = 0.01$) and SNRIs ($\chi^2 = 12.32$ (1), $p < 0.0004$) than non-Hispanics (Table 1). Whites were less likely to receive a TCA ($\chi^2 = 6.51$ (1), $p = 0.01$) compared to blacks (TCA use black: 32.56% vs. white: 9.54%) (Table 1). Antipsychotic use was associated with SNRI and TCA use ($\chi^2 = 4.76$ (1), $p = 0.02$; $\chi^2 = 6.62$ (1), $p = 0.01$; respectively) (Table 1). Gender was not significantly associated with a type of AD use. Type of AD use did not vary by whether or not the patient had been diagnosed with a mood disorder.

Among continuous variables (Table 2), age was inversely related to SSRI use ($p = 0.04$); total number of prescriptions was directly related to SNRI ($p = 0.04$) and “Other” AD use ($p = 0.02$); and total number of psychotropic medications (excluding antidepressants) used was not significantly associated with any type of AD. We found an association between uncontrolled pain and “Other” AD use ($p = 0.01$).

In the multinomial logistic regression (Table 3, Model 1) we included factors significant in the bi-variate analysis at $p < 0.10$. The factors were then tested and remained in the final

model if significant at $p < 0.05$. Although gender was not significant at the bi-variate level, the variable was also included to control for any additional potential confounding by demographics. Although not significantly associated with type of AD, mood disorders and total number of psychotropic medications were included in the model to control for any possible residual confounding. The multinomial logistic regression model demonstrated good fit (Likelihood Ratio statistic p -value < 0.0001) and indicated significant variation by race, ethnicity, and age (Table 3, Model 1). The reference group for antidepressant (AD) comparisons was SSRI antidepressant use.

After adjusting for the other factors, black race was significantly associated with TCA use (OR = 5.96, 95% CI = 1.85 - 19.19), and Hispanic ethnicity was significantly inversely associated with SNRI and “Other” AD use (OR = 0.06, 95% CI = 0.008-0.45; OR = 0.13, 95% CI = 0.02-0.73; respectively). We examined black race and TCA use in relationship to diabetes, pain level, uncontrolled pain, and need for sedation, as possible explanations for the increased use of TCAs in blacks compared to whites, and did not find a relationship. Older age was directly but only marginally associated with TCA use (OR = 1.04, 95% CI = 0.99-1.09). Use of psychotropic medications was inversely associated with SNRI use (OR = 0.31, 95% CI = 0.11-0.88) and tricyclic use (OR = 0.27, 95% CI = 0.08-0.87). Neither gender nor the diagnosis of a mood disorder was significant with a type of AD use in the multinomial logistic regression model. Total ADL impairments, having a non-psychiatric disorder, using non-psychotropic medications, and total number of prescriptions were also not significant in relationship to a type of antidepressant use in the multinomial logistic regression model.

DISCUSSION

The major findings of this paper were that, using data collected in 2007 on home healthcare patients prescribed an antidepressant (AD) medication, approximately two thirds of the patients were taking an SSRI. However, among those patients taking an AD, type of AD used varied by the sociodemographic factors of age, race and ethnicity. Specifically, the rate of prescribing TCAs was higher than the different types of ADs in blacks, and Hispanic ethnicity were associated with decreased use of non-SSRI ADs including SNRIs and “Other” ADs. The rate of TCA use also increased by advancing age. In contrast, type of AD did not vary systematically by psychiatric or functional status or by use of a psychotropic medication, or non-psychiatric disorder.

Differences by race, ethnicity and age in the type of antidepressant prescribed – including higher use of TCAs by blacks -- suggest systematic variation in prescribing practices. Given findings indicating that different types of antidepressants have comparable efficacy^[16-18], this variation may reflect a complex balance of decisions by providers including patient preferences, and provider practices such as the use of some types ADs for their side effects, and the sedative effects of TCAs to reduce behavior symptoms or anxiety, and possible non-psychiatric effects such as to treat neuropathic pain. HHC offers an opportunity to explore differences in preferences and practices to understand and improve medication management, mental health care and differences in acutely ill elderly patients.

Similarly, the decreased use of SNRIs and TCAs among patients who use other psychotropic medications in addition to ADs may reflect physician preferences in patients with complicated psychiatric histories. These relationships merit further exploration in the HHC population and other elderly populations, where diagnosis and reporting in medical records may not have been subject to transfer from acute care to HHC, and therefore may be more reliable.

Use of different types of ADs may also reflect local small geographic variation in practice choices among clinicians, patient preferences and the perception of the patient by the clinician based on race, ethnicity, age and socioeconomic status. These findings complement previously reported findings that use of any AD varied by race and age and further suggest the dynamic decision making that goes into AD prescribing (pending publication).

The higher use of TCAs by blacks among AD users may demonstrate complex considerations of patient needs and practice variation in smaller populations. The greater TCA prescription rate in blacks might represent economic differences; for example, blacks are more likely than whites to receive conventional as compared to second generation antipsychotics [19], a finding consistent with the decreased use of more recently introduced medications among blacks found in the current study. A racial difference in SSRI use was present even though many SSRIs were already available in generic form in 2007 when data were collected for this study.

Optimal treatment with TCAs may require more physician monitoring than does different AD types, due to the possible need for blood level and cardiovascular monitoring [20-21]. The possible increased physician time costs make it difficult to attribute TCA use in blacks as the less expensive AD alternative. Moreover, long term outcomes in a “real world” randomized trial found that costs of treatment when SSRIs and SNRIs were prescribed initially were comparable to tricyclics [22]. Increased switching from TCAs to fluoxetine due to the adverse side effects of TCAs reduced any cost savings, and may explain the overall lower use of TCAs in our sample compared to SSRIs [22-23].

Other considerations such as local prescribing practices may be implicated in the increased use of TCAs by blacks. It is possible that blacks were more likely to be treated by older physicians who had not incorporated newer classes of ADs into their practices or had been receiving ADs for longer periods without being changed to newer ADs subsequent to their introduction. We cannot address these possibilities with the available data set.

Use of tricyclics increased incrementally with age. While this effect was only marginally significant, the odds ratio of 1.04 per year translates into an over 2-fold increased likelihood of AD use among the aging elderly, for example, an 85 year old patient receiving a TCA relative to a 65 year old. The relationship may reflect the use of known side effects of different AD types to treat specific symptoms. For instance, tricyclics are known to cause sedation and have been used to treat sleep disturbances and neuropathic pain in the frail elderly. We however could not find any associations between the reasons ADs were prescribed or the subcategories of medical disorders (e.g., diabetic neuropathy) and tricyclics.

In the context of the trend of decreasing AD prescribing as the elderly age [24-26], it is possible that the tendency to dismiss depression in the old age as “natural” [4] would be consistent with prescribing less than “first line treatments” for depression in HHC elderly [27]. It is also possible that the marginal but increased use of tricyclics compared to SSRIs in the aging elderly represents a pattern of the lagging diffusion of newer antidepressants into the older elderly [27, 28].

Hispanics in our sample appeared to be using SSRIs at a much higher frequency than other types of antidepressants; however, the decreased use of both SNRIs and “Other” ADs by Hispanics lacks a clear explanation. Although the sample of Hispanics was small in the NHHCS, the sample size does not fully explain the overall pattern in Hispanics of using SSRIs. SNRIs were likely more expensive than SSRIs in 2007 because they were not available in generic form, but cost savings does not account for the lack of significant increased use of TCAs relative to SSRIs in Hispanics. Age and gender do not offer an

explanation as our model did not find a significant relationship with these variables and type of AD use. More research is required to explore possible patterns in patient preferences and provider practices in Hispanic communities.

A major limitation of the NHHCS is the lack of information on AD dosage, prescriber information and agency regional geographic location that might help us understand the reasons various ADs by type were prescribed. Another limitation was the lack of direct data gathered from the HHC patient, and the reliance on medical records. A direct patient interview may have provided more reliable data about race and ethnicity. The NHHCS survey was also limited by its 66% response rate, however the data comes directly from the NHHCS and represents the first year in which medication data were gathered by the CDC, and the only national data set of HHC patients and medication use that is currently available. We were unable to evaluate any potential bias from non responders, as characteristics or reasons for non response were not provided.

While a large proportion of patients were taking an AD without an accompanying diagnosis of depression or other mood disorder, medical records may fail to include medical diagnoses because of coding or transcription errors, or diagnoses being dropped when a patient transitions into HHC [29-31]. This may be particularly relevant to patients who have recovered from a previous clinical depression and are currently receiving ADs for prophylaxis. As with any cross-sectional study, causation and timing cannot be established and further investigation in longitudinal study design could inform us about the timing of diagnoses, the patient's receipt of prescriptions, and the circumstances under which a physician writes the prescription.

The strength of our present study was the examination of the home healthcare population. Home healthcare provides a window of time in which patients can be assessed and observed by a home healthcare nurse, and in which the unmet health care needs of the home healthcare patient can be addressed. Home healthcare is also a service provided and used by a broad sample of the national population and represents an opportunity to address disparities in mental healthcare. The use of the newly released NHHCS was an additional strength of our study. It offered survey data from a broad population based sample of the HHC elderly, necessary to update the national patterns in AD use. Our report of medication usage in the HHC elderly can inform clinical care, and identifies questions for further investigation into the systematic and differential use of ADs by type and by race, ethnicity and age.

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Table 1
Type of Antidepressant Use Among Home Healthcare Patients (Age ≥65) taking an Antidepressant by Residential and Clinical Factors Defined as Categorical Variables, and Analyzed by Rao-Scott Chi-Squared Analysis by Type

Residential Characteristics	Total Unweighted Sample Size (n=909)	Weighted Percent using SSRIs	Weighted Percent using SNRIs	Weighted Percent using TCAs	Weighted Percent using Other ADs	SSRI vs. No SSRI Rao-Scott χ^2 (df) (p-value)	SNRI vs. No SNRI Rao-Scott χ^2 (df) (p-value)	TCA vs. No TCA Rao-Scott χ^2 (df) (p-value)	Other ADs vs. No Other ADs Rao-Scott χ^2 (df) (p-value)
Gender									
Male	271	65.73	11.64	7.47	15.15	0.16(1)(0.68)	0.21(1)(0.64)	2.27(1)(0.13)	0.01(1)(0.78)
Female	638	63.10	10.00	12.97	13.93				
Hispanic Ethnicity									
Yes	46	92.73	0.92	3.57	2.78	23.87(1)(<0.0001)	12.32(1)(0.0004)	2.88(1)(0.08)	6.37(1)(0.01)
No	863	61.71	11.22	11.90	15.16				
Race									
White	839	65.92	9.71	9.54	14.83	3.58(1)(0.05)	1.68(1)(0.19)	6.51(1)(0.01)	0.53(1)(0.42)
Black	58	44.72	12.87	32.56	9.85				
Other	17	57.79	32.58	0.00	9.63				
Marital Status									
Married/Living with Partner	353	67.05	12.02	9.35	11.58	2.36(3)(0.50)	0.94(3)(0.81)	1.31(3)(0.72)	4.28(3)(0.23)
Widowed	363	61.62	8.76	13.21	16.40				
Divorced/Separated	68	74.34	11.68	8.97	5.00				
Never Married	39	61.80	11.99	5.37	14.50				
Living Arrangements									
Lives Alone	308	62.05	11.78	12.80	13.36	0.46(1)(0.49)	0.16(1)(0.89)	0.60(1)(0.43)	0.07(1)(0.78)
Lives with Spouse/Significant Others	309	68.42	11.05	9.01	11.53				
Lives with Other Family Members/Children/Parent	201	63.22	10.12	10.79	15.86				
Lives with Non Family Members	76	64.95	6.87	9.36	18.81				
Psychiatric Disorders									
Mood Disorders	162	79.75	7.21	5.84	7.20	9.03(1)(0.002)	1.08(1)(0.29)	3.14(1)(0.07)	3.61(1)(0.05)

Residential Characteristics	Total Unweighted Sample Size (n= 909)	Weighted Percent using SSRIs	Weighted Percent using SNRIs	Weighted Percent using TCAs	Weighted Percent using Other ADs	SSRI vs. No SSRI Rao-Scott χ^2 (df) (p-value)	SNRI vs. No SNRI Rao-Scott χ^2 (df) (p-value)	TCA vs. No TCA Rao-Scott χ^2 (df) (p-value)	Other ADs vs. No Other ADs Rao-Scott χ^2 (df) (p-value)
Dementia (including Alzheimer's)	54	71.33	3.55	0.01	25.11	0.40(1)(0.52)	3.35(1)(0.06)	180.43(1)(<0.0001)	1.30(1)(0.23)
Anxiety	56	53.82	24.16	16.38	5.64	0.60(1)(0.43)	2.74(1)(0.09)	0.24(1)(0.61)	1.85(1)(0.17)
Psychotic Disorders (including Schizophrenia)	4	84.46	15.54	0.00	0.00	0.91(1)(0.33)	0.13910(0.71)	Not reported.	Not reported.
Psychotropic Medications Excluding ADs									
Other Psychotropics	399	61.00	11.54	11.51	15.96	1.28(1)(0.25)	0.33(1)(0.56)	0.01(1)(0.91)	0.50(1)(0.47)
Antipsychotics	95	72.11	3.81	3.16	20.93	1.52(1)(0.21)	4.76(1)(0.02)	6.62(1)(0.01)	1.47(1)(0.22)
Mood Stabilizers	17	47.57	3.44	5.90	43.09	0.77(1)(0.37)	2.89(1)(0.08)	0.43(1)(0.50)	3.91(1)(0.04)

Table 2
Type of Antidepressant Use Among Home HealthCare Patients (Age ≥ 65) Taking an Antidepressant by Continuous Variables for Age, Total ADL Impairments, Total Number of Prescriptions, Number of Psychotropic Medications, Analyzed by T-test for Significance by Type

Residential Characteristics (Range)	Weighted Mean (SE)(95% CI)	t-test (p-value)			
		SSRI	SNRI	TCA	Other AD
Age (65-100 years)		-2.00(0.04)	1.19(0.30)	1.44(0.16)	1.09(0.36)
	SSRI=78.17(0.55)(77.09-79.26)				
	SNRI=79.86(1.05)(77.76-81.95)				
	TCA =80.06(1.00)(78.08-82.05)				
	Other=79.73(1.18)(77.38-82.07)				
Total ADL Impairments (0-5 limitations)		-0.62(0.53)	-0.17(0.86)	-0.38(0.70)	1.26(0.20)
	SSRI=3.00(0.11)(2.78-3.23)				
	SNRI=3.02(0.25)(2.50-3.50)				
	TCA=2.95(0.25)(2.44-3.46)				
	Other=3.29(0.20)(2.87-3.70)				
Total Number of Prescriptions (1-25)		0.04(0.96)	2.00(0.04)	-0.60(0.55)	-2.19(0.02)
	SSRI= 12.72(0.32)(12.07-13.37)				
	SNRI=14.65(1.01)(12.63-16.68)				
	TCA=12.33(0.71)(10.90-13.76)				
	Other=11.55(0.60)(10.35-12.75)				
Total Number of Psychotropic Medications (Excluding Antidepressants) (0-4)		-0.75(0.45)	0.08(0.93)	-0.89(0.37)	1.28(0.20)
	SSRI=0.64(0.04)(0.56-0.72)				
	SNRI=0.67(0.11)(0.43-0.90)				
	TCA=0.58(0.09)(0.40-0.76)				
	Other AD=0.80 (0.12)(0.55-1.08)				

Table 3 (Model 1)
Multinomial Logistic Regression Modeling SSRI, SNRI, TCA and Other Antidepressants
as a Dependent Variables and Black Race, Hispanic Ethnicity, Age, Mood disorder,
Gender and Use of a Psychotropic Medication as Independent Variables

Independent Variables		β (SE)(p-value)	Adjusted OR(CI)
Black Race			
	SNRI	0.68(0.74)(0.35)	1.97(0.46-8.48)
	TCA	1.78(0.59)(0.002)	5.96(1.85-19.19)
	Other	-0.07(0.69)(0.91)	0.92(0.23-3.60)
Hispanic Ethnicity			
	SNRI	-2.81(1.03)(0.006)	0.06(0.008-0.45)
	TCA	-1.54(0.89)(0.08)	0.21(0.03-1.24)
	Other	-2.01(0.86)(0.02)	0.13(0.02-0.73)
Mood Disorder			
	SNRI	-0.36(0.48)(0.45)	0.69(0.26-1.80)
	TCA	-0.56(0.51)(0.27)	0.57(0.21-1.55)
	Other	-0.85(0.50)(0.09)	0.42(0.15-1.14)
Age			
	SNRI	0.03(0.02)(0.14)	1.03(0.98-1.08)
	TCA	0.04(0.02)(0.05)	1.04(0.99-1.09)
	Other	0.01(0.02)(0.49)	1.01(0.97-1.06)
Gender			
	SNRI	-0.109(0.40)(0.78)	0.89(0.40-1.99)
	TCA	0.62(0.44)(0.15)	1.86(0.78-4.43)
	Other	-0.008(0.42)(0.98)	0.99(0.42-2.28)
Use of a Psychotropic Medication			
	SNRI	-1.15(0.53)(0.02)	0.31(0.11-0.88)
	TCA	-1.28(0.58)(0.02)	0.27(0.08-0.87)
	Other	0.78(0.42)(0.06)	2.19(0.96-4.99)