ORIGINAL PAPER

Treatment Decision-Making Preferences of Older Depressed Minority Primary Care Patients

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Abstract

Little research examined the decision-making preferences of older, racially and ethnically diverse minority patients with untreated depression. The study's aims were to identify decision-making preferences and the characteristics associated with a more active preference in the decision-making process for general medical and depression treatment decisions. We assessed the preferred involvement in making general medical and depression treatment decisions of 201 older primary care patients with untreated depression. Linear regressions examined the association of sociodemographic and clinical characteristics with decision-making preference for both decision types. Majority of patients preferred shared decision-making for general medical and depression treatments. Female gender was associated with a preference for active decision-making for depression treatment. For this sample older depressed patients preferred sharing the decision-making responsibilities with physicians. To improve communication and the initiation and adherence to mental health care, physicians must consider older, minority patients' preferences for involvement in the decision-making process.

Keywords Decision-making · Depression treatment preferences · Minority · Health disparities · Primary care · Geriatrics

The U.S. is becoming older and more ethnoculturally diverse, with Hispanic/Latino populations currently representing the largest racial/ethnic minority group. By 2050 the prevalence of older Hispanic/Latino and Black adults receiving mental health care services in primary care settings is projected to increase significantly (Chapa, 2004; Dall et al., 2013) due to the disproportionate impact of multiple medical (e.g., diabetes, heart disease, cancer; Centers for Disease Control and Prevention, 2013) and mental health disorders, such as major depressive disorder (Institute of Medicine, 2011; Vega 1999; Whitfield & Baker, 2013). Older, racially

diverse minority adults experience more severe depression but are less likely to receive treatment compared to other older adults in the general population (Chapa, 2004; Narayan, 2002; Nelson, 2002; Olfson et al., 2016; Unützer et al., 2003; Vega et al., 2007).

While a number of safe and effective treatments exist for depression in older adults (Taylor, 2014), older patients are often reluctant to initiate and adhere to recommended treatments, especially those from racial and ethnic minority groups (Ayalon et al., 2005; Zivin & Kales, 2008) largely due to limited availability and affordability of mental health providers and services (Carrasquillo et al., 2000). Older adults in general tend to over rely on primary care providers for mental health screening and care for depression (Park & Zarate, 2019). With the promotion of universal screening for depression in primary care settings (Siu et al., 2016), it is important for physicians to understand older, racially diverse minority patients' preferred level of involvement in making treatment decisions in an effort to improve outcomes for these underserved groups.

Studies of general medical patients have revealed that the great majority desire information about their medical conditions and available treatment approaches (Cordina et

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al., 2018; Dickinson et al., 2003). However, patients express varying degrees of preferred involvement in making treatment decisions with their physician. Some prefer to make decisions solely by themselves without input from their physician (i.e., utmost active participation in the decision-making process), others prefer to share the decision-making responsibility with their physician, and others prefer their physicians make the treatment decision without their input (i.e., utmost passive participation in the decision-making process; Adams & Drake, 2006). Studies examining decision-making preferences indicated that patients who are female, younger, physically healthier, and more educated prefer a more active role in the medical decision-making process with their medical providers (Arora & McHorney, 2000; Benbassat et al., 1998; Cordina et al., 2018). Other studies suggest Hispanics/Latinos and African American/ Black individuals prefer more passive participation in the medical decision-making process (Benbassat et al., 1998; Levinson et al., 2005; Patel & Bakken, 2010; Park et al., 2014).

For depression treatment, there is burgeoning research on decision-making preferences of racial and ethnic minority patients. A recent study (Matthews et al., 2021) examined a sample comprised largely of racial and ethnic minority patients and found that patients preferred sharing the decision-making responsibilities for depression with their physician, but desired sole control of the decisional outcome for such treatment. However, these results do not align with earlier research (Patel & Bakken, 2010) that found racial and ethnic minority patients preferring a more passive role in the decision-making process for depression treatment, with females preferring a more active role in the decision-making process than males (Patel & Bakken, 2010). In comparison to younger patients, older minority adults may express unique preferences due to more complex medical histories, interactions with the health care system, and barriers to care (Raue et al., 2009).

Using baseline data from a study of untreated older depressed, minority primary care patients (Raue et al., 2019), we examined patients' preferred degree of involvement in making general medical and depression treatment decisions with their physician. Based on previous research with middle aged minority patients (Matthews et al., 2021), we hypothesized that majority of patients in our sample would prefer more active participation during the treatment decision process for both general medical and depression treatment. We also hypothesized that female gender, higher education, and lower disease severity would be associated with preferences for more active participation in both types of treatment decisions.

Method

Study Design and Participants

The current study analyzed baseline data drawn from a study of a shared decision-making intervention for untreated elderly depressed, inner city primary care patients (Raue et al., 2019). A total of 202 community-dwelling patients 65 years and older were recruited (4/2010–11/ 2014) from a public hospital in the South Bronx, New York. The study was approved by Weill Medical College and Lincoln Hospital Institutional Review Boards. Please see (Raue et al., 2019) for recruitment procedure and inclusion and exclusion criteria. One case was deleted due to no baseline data available for the dependent variables assessing decision-making preferences for general medical (i.e., Autonomy Preference Index) and depression treatment (i.e., Autonomy Preference Index for depression), resulting in a total sample of 201 patients for this analysis.

Inclusion criteria were: age > 65 years; English or Spanish speaking; scoring > 10 on medical staff or RA-administered 9-item Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001); not receiving antidepressant medication or psychotherapy within the past month; non-aphasic; non-demented according to medical records; and able to give consent. Exclusion criteria included not having bipolar, psychotic, or current substance abuse disorders as assessed by research assistants (RAs; see below). A Mini-Mental State Exam (MMSE; Folstein et al., 1975) cutoff score of ≥ 20 was chosen to account for the low education level of the population served (Crum et al., 1993).

Measures

RAs conducted baseline interviews that included the following questionnaires and measures.

Sociodemographic Questionnaire

Sociodemographic information included age, sex, race, Hispanic/Latino ethnicity, ethnic identity (i.e., Antiguan, Puerto Rican), marital status, household composition, annual income, and years of formal education. Whether patients had a lifetime history of antidepressant medication or psychotherapy were assessed with single dichotomous items.

Autonomy Preference Index (API; Ende et al., 1989)

The API measures patients' preferences for two dimensions of autonomy: the desire to make general medical decisions and desire to be informed of medical conditions. Consistent with these dimensions, the API contains two scales, a

15-item decision-making preference scale relating to general medical conditions (API-G) and an eight-item information-seeking preference scale (API-I). The API-G includes items such as, "You should go along with your doctor's advice even if you disagree with it," rated on a 5-point Likert-type scale from strongly agree to strongly disagree. Other items present hypothetical situations—e.g., "Suppose you went to your doctor for a routine physical examination and he or she found that everything was all right except that your blood pressure was high (170/100). Who should decide whether you should be treated with medication or diet (you alone, mostly you, you and the doctor equally, mostly the doctor, the doctor alone)?" The API-G yields a linearly adjusted total score ranging from 0 to 100, where 0 indicates a preference for one's physician to take full responsibility for decision-making (i.e., utmost passive participation), 50 indicates a preference for shared decision-making responsibility with the physician, and 100 indicates a preference for sole responsibility (i.e., utmost active participation). For this sample, Cronbach's coefficient alpha for the API-G scale was 0.73.

The 8-item API-I scale measures patients' desires to be knowledgeable of health-related information (e.g., health status, care planning and management, treatment options, medication side effects). An example of an item is "Even if the news is bad, you should be well informed" rated on a 5-point Likert-type scale from strongly agree to strongly disagree. A linearly adjusted total score of 0 represents no desire to be informed, a score of 50 represents a neutral preference of being informed, and a score of 100 represents a strong desire of being informed. For the eight-item API-I scale Cronbach's coefficient alpha was 0.68.

Autonomy Preference Index for Depression (API-D; Raue et al., 2019)

The 4-item API-D was created by the third author (PR) in the same format as the API to assess patients' preferences for involvement in decision-making specifically regarding treatment for depression. Prompt and items were: "Suppose you had symptoms of depression, such as sadness and decreased ability to enjoy your activities. You felt this way most of the time, and these symptoms lasted for 2 weeks in a row. Who should make the following decisions (you alone, mostly you, you and the doctor equally, mostly the doctor, the doctor alone): Whether you should 1) be under the care of your physician to help manage these symptoms? 2) should be referred to a mental health specialist? 3) should be treated with medication? 4) should be treated with psychotherapy or counseling?" Linearly adjusted total score can range from 0 to 100 and are interpreted the same as API-G.

The four-item API-D scale's Cronbach's coefficient alpha in the current sample was 0.72.

Chronic Disease Score (CDS; Fishman et al., 2003)

The CDS assessed medical morbidity by identifying chronic conditions from prescribed medications. These chronic conditions along with the patient's sociodemographic information (i.e., age, gender, benefit status) were assigned a level of risk and produced a score. A score of 0 indicates no illness severity, and scores range from mild to severe illness severity.

The Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960)

The HRSD 24-item scale is a semi-structured clinical interview that measures depression severity. Scores of 0–7 represents "normal presentation" with patients exhibiting transient to no symptoms of depression, scores between 8 and 13 represents mild depression, scores between 14 and 18 represents moderate depression, scores between 19 and 22 represents severe depression, and scores 23 and higher represents very severe depression. The HRSD is widely used and has been shown to be reliable and valid in multiple populations, including among Spanish-speaking adults (Ramos-Brieva & Cordero-Villafafila, 1988). For this sample, Cronbach's coefficient alpha for the HRSD was 0.60.

The authors have no conflicts of interests to disclose.

Results

Descriptive statistics were calculated for sociodemographics, HRSD scores, and API-G, API-I, and API-D variables (Table 1). We categorized participants into three decision-making preference categories based on API-G and API-D scores. Participants with scores between 0 and 33 were categorized as preferring passive involvement, scores between 34 and 67 were categorized as preferring shared involvement with physician, and scores between 68 and 100 were categorized as preferring active involvement. A linear regression was performed to identify whether independent variables being female, older in age, years of education, and CDS score were associated with a preference for more active involvement in the decision-making process for API-G. A linear regression was performed to identify whether independent variables being female, older in age, years of education, and HRDS score associated with the preference for more active involvement in the decision-making process for API-D.

Table 1 Summary of Demographics for Participants

	N	%
	201	100
Age		
M	72.01	-
SD	5.49	-
Gender		
Female	163	81.1
Male	38	18.9
Marital Status		
Single	46	22.9
Married	56	27.9
Separated	10	5.0
Divorced	33	16.4
Widowed	56	27.9
Years of Education		
M	7.78	-
SD	3.95	-
Income		
Less than $9,000	84	41.8
$9,000 - $12,999	61	30.3
$13,000 - $15,999	17	8.5
$16,000 - $18,999	8	4.0
$19,000 - $21,999	7	3.5
$22,000 - $24,999	4	2.0
$25,000 - $27,999	4	2.0
$28,000 - $30,999	1	0.5
$31,000 - $34,999	2	1.0
$35,000 - $39,999	2	1.0
Don't Know	6	3.0
Missing	5	2.5
Race		
White	111	55.2
Black/African American	58	28.9
Asian	1	0.5
Native Hawaiian or Other Pacific Islander	30	14.9
Other	1	0.5
Hispanic/Latino Ethnicity		
Yes	183	91
No	18	9
Ethnic Identities		
Antiguan	1	0.5
Costa Rican	1	0.5
Cuban	1	0.5
Dominican	35	17.4
Ecuadorian	10	5.0
Haitian	1	0.5
Honduran	6	3.0
Jamaican	4	1.9
Mexican	5	2.5
Nicaraguan	2	1.0
Peruvian	1	0.5
Puerto Rican	77	38.3
Salvadoran	3	1.5
Did Not Specify	54	26.9
Antidepressant Treatment History	59	29.4

Table 1 (continued)

	N	%
Psychotherapy Treatment History	64	31.8
API-G		
M	47.80	-
SD	13.44	-
Preference for Active Involvement	9	4.7
Preference for Shared Involvement	154	79.8
Preference for Passive Involvement	30	15.5
API-D		
M	48.69	-
SD	24.40	-
Preference for Active Involvement	42	20.9
Preference for Shared Involvement	105	52.2
Preference for Passive Involvement	54	26.9
API-I		
M	76.96	-
SD	9.90	-
CDS		
M	6.12	-
SD	3.07	-
HRSD		
M	18.83	-
SD	6.24	-

Abbreviations: API-G = Autonomy Preference Index Scale for General Medical Conditions; API-D = Autonomy Preference Index Scale for Depression; API-I = Autonomy Preference Index Information-Seeking Preference Scale; HRSD = Hamilton Rating Scale for Depression.

Participants

Sociodemographic information, API scores, chronic disease severity scores, and depression severity scores are presented in Table 1. Participants' age ranged from 65 to 92 years ($M = 72.01 \pm 5.49$), and 163 (81.1%) identified as female. 91% of participants identified as Hispanic/Latino, most of who identified as white (55%; $n = 111$) or Black/African American (28.9%; $n = 58$). The average Chronic Disease Severity score was 6.12 ($SD = 3.07$), indicating multiple chronic medical conditions. The average depression severity score was 18.83 ($SD = 6.24$), indicating moderate depression.

API Preferences

The average API-G score for general medical treatment decisions was 47.8 ($SD = 13.44$), indicating a preference for shared decision-making. Less than 5% ($n = 9$) of participants preferred making decisions solely by themselves with little to no input from their physician, 79.8% ($n = 154$) preferred shared decision-making, and 15.5% ($n = 30$) preferred their physician to make the treatment decision with little to no input from them. The average API-D score was 48.69 ($SD = 24.40$), also indicating a preference for shared decision-making for depression. One in five (20.9%, $n = 42$) participants preferred making decisions solely by themselves with little to no input from their physician, half (52.2%, $n = 105$) preferred shared decision-making, and 6.9% ($n = 54$) preferred their physician to make the treatment decision with little to no input from them. A non-parametric chi-square test revealed the variations in proportions between general medical versus depression treatment decision-making were statistically significant ($\chi(2) = 33.40$, $p < .0001$). The average API-I score was 76.96 ($SD = 9.90$), indicating a strong desire to be informed of health-related information.

Patient Characteristics Associated with Decision-Making Preferences

Linear regression analysis (Table 2) revealed no significant associations between being female, years of education, and degree of medical burden with a preference for active involvement in the decision-making process for making general medical treatment decisions ($F(4, 187) = 1.378$, $p = .24$, $R^2_{adj.} = 0.008$). Linear regression analysis (Table 3) revealed female patients preferred to be more active during the decision-making process for depression treatment compared to male patients ($\beta = 0.027$; $p = .03$). The full model accounted for 3.5% of the variance ($F(4,195) = 2.80$, $p = .03$, $R^2_{adj.} = 0.035$), corresponding to a small effect size (Cohen, 1992). A Levene's test indicated equal variance ($p = .596$) between males ($M = 41.12$; $SD = 22.40$) and

Table 2 Summary of Model for Hierarchical Regression Analysis for Variables Predicting Active Involvement in the Decision-Making Process for General Medical Treatment Decisions

	B	SE B	β	t	p
Constant	37.920	13.426	-	2.824	0.005**
Female (vs. Male)	-3.121	2.556	− 0.088	-1.221	0.224
Age	0.215	0.177	0.088	1.214	0.226
Years of Education	0.148	0.244	0.044	0.605	0.546
Medical Burden Severity	− 0.550	0.318	− 0.126	-1.731	0.085

* $p < .05$, ** $p < .01$.

Table 3 Summary of Model for Hierarchical Regression Analysis for Variables Predicting Active Involvement in the Decision-Making Process for Depression Treatment Decisions

	B	SE B	β	t	p
Constant	29.273	25.218	-	1.161	0.247
Female (vs. Male)	-9.739	4.378	− 0.157	-2.225	**0.027***
Age	0.442	0.315	0.099	1.406	0.161
Years of Education	0.759	0.434	0.122	1.749	0.082
Depression Severity	− 0.361	0.280	− 0.091	-1.290	0.198

* $p < .05$.

Table 4 Proportion of Females and Males Within Each Decision-Making Category for Depression Treatment

	Females		Males	
	n	%	n	%
Preference for Passive Involvement	41	25.2%	13	34.2%
Preference for Shared Involvement	84	51.5%	21	55.3%
Preference for Active Involvement	38	23.3%	4	10.5%

females ($M = 50.46$; $SD = 24.56$) in their preferred level of involvement in the decision-making process for depression treatment ($t(199) = 2.145$, $p = .03$), allowing for a between-group analysis. See Table 4 for the proportion of females and males within each decision-making category.

Given the possibility of prior depression treatment accounting for observed gender differences for decision-making preferences for depression treatment, we conducted two post-hoc chi-square tests to determine whether differences in proportion of females vs. males of having an antidepressant treatment history and a psychotherapy history. Results indicated similar proportions of females (32.1%; $n = 52$) and males (18.4%; $n = 7$) had a history of antidepressant treatment ($\chi(1) = 2.77$, p = .10) and similar proportions of females (33.7%; $n = 55$) and males (23.7%; $n = 9$) had a history of partaking in psychotherapy ($\chi(1) = 1.44$, p = .231). Therefore, treatment history did not account for the observed gender difference in the decision-making preferences for depression treatment.

Discussion

This is one of the first studies to examine decision-making preferences in a racially diverse sample of older, minority patients in a primary care setting in an urban public hospital. The study's results indicated the majority of patients preferred sharing the decision-making responsibilities with their physicians for both general medical and depression treatment. Apart from recent research (Matthews et al., 2021), this finding is unlike most prior research (Benbassat et al., 1998; Levinson et al., 2005; Patel & Bakken, 2010; Park et al., 2014) examining preferences of minority patients younger than 65 years of age, particularly those of Hispanic or Latino origin, that has indicated a preference for a more passive role or desire for a paternalistic approach wherein the physician makes treatment decisions that they think are in the best interest for patients. In the current sample, we speculate that more experience with medical providers along with older age may have allowed for more opportunities to form relational bonds and build trust and mutual respect with physicians– qualities considered to be critical preconditions to effectively foster shared decision making (Matthews et al., 2021).

Despite this overall tendency to prefer a shared decision-making approach, there was substantial variability among patients and different patterns for preferences concerning general medical treatment versus depression treatment. While only one in 20 patients preferred sole responsibility for making general medical decisions, one in five expressed this preference for making decisions regarding depression treatment. This finding is consistent with a study examining preferences of ethnically diverse middle-aged individuals seeking mental health care who preferred greater

involvement in the decision-making process for mental health care decisions compared to general medical decisions (Patel & Bakken, 2010). It may be that the older, racially diverse minority patients in this sample did not want as much input from their primary care physicians regarding depression treatment. Perhaps these patients had decided on how to treat their depression or the approaches that were acceptable to them. Alternatively, perhaps the stigma of depression was greater than for other conditions, thus the preferences for sole responsibility.

In our study being female (vs. male) was the only sociodemographic characteristic associated with a preference for active participation in the decision-making process for depression treatment. This finding aligns with prior research examining general health-related decision-making preferences (Arora & McHorney, 2000; Jolles et al., 2019; Levinson et al., 2005) that found women tend to prefer a more active approach. It may be that in our sample females were more exposed to depression screening and discussed depression treatment options more so than males (Hahm et al., 2015), allowing them to be more informed or empowered in the decision-making process compared to males. However, it is also possible that unaccounted cultural factors (e.g., values and norms of discussing depression treatment with primary care physicians) could be driving this finding. For example, women tend to hold medical decision-making roles for their families (Matoff-Strepp et al., 2014). Thus, it may be a normalized role for these older women to be active in the discussion of depression treatment with their physicians. Post-hoc analyses to examine possible differences in proportion of females versus males receiving prior depression treatment revealed no gender differences that could account for this finding. For general medical treatment, no sociodemographic or clinical characteristics were associated with a preference for active involvement in the decision-making process. It may be that this sample of older, racially diverse minority patients have more familiarity and mutual trust with their physician to discuss their general medical health status and possible available treatments, thus, preferring shared involvement in the decision-making process.

These study findings add to our knowledge of this underserved and understudied population of older, racially diverse minority adults and has implication for primary care physicians' expectations for these patients. Physicians may benefit from avoiding taking a paternalistic approach upon inquiring about these patients' decision-making preferences in making general medical treatment decisions. By doing so, physicians allow older, racially diverse minority patients to reveal their treatment preferences earlier in discussions, which may improve treatment engagement and adherence. For depression treatment decisions, it is important for

physicians to note that older, racially diverse male minority patients may either prefer the physician to be more involved and responsible for making depression treatment decisions or require more encouragement in engaging in the decision-making process for treatment. Understanding these unique decision-making preferences of older, racially diverse minority adults has the potential to improve communication during the primary care visit, reduce health disparities, and improve treatment initiation and adherence.

Strengths and Limitations

The current study had several strengths including recruitment of patients from an inner-city public hospital and a large representation of older, racially diverse minority adults. RAs conducted the interview in a systematic manner in the preferred language of the patient, which limited acquiescent response bias as RAs probed when given vague answers. Study limitations included the possibility of a selection bias as not all primary care providers at the hospital consented for their patients to participate in the study. This may have limited equal representation of patients who received primary care in the sample. Lastly, while inclusion of patients who identified with Hispanic/Latino ethnicity is considered a strength, the limited frequencies for the multiple Hispanic/Latino identities did not allow for the examination of decision-making preferences between these ethnic groups.

Although there was a small effect size for differences between females and males, the result may still be clinically meaningful. Future research could consider additional data (e.g., acculturation level, health literacy) not collected in this study to improve the effect of the model. Furthermore, the data were not collected with testing gender differences in mind. Despite the relatively small male subgroup, a Levene's test indicated the heterogeneity of variance test was not violated, making a between-group analysis possible. It is also important to note that expressed preferences of level of involvement in the decision-making process may not translate to actual behavior in a clinical encounter. For example, depressed mood and lack of motivation may inhibit an older individual from partaking in the decision-making process for medical and mental health treatment decisions, despite expressed preferences for an active involvement (Raue et al., 2009). Despite these limitations, this study remains the first to our knowledge to examine variability between older females and males in their desire to take active roles in the decision-making process for general medical and depression treatment.

Conclusion and Future Directions

The current study found the majority of older, racially diverse minority patients preferred shared decision-making for both general medical and depression treatment. The study also identified female gender as associated with a preference for active roles in the decision-making process for their depression treatment. Additional research is needed with larger samples to confirm these gender differences, and to examine other sociodemographic and clinical characteristics variables that may be driving older patients' preferences. Furthermore, additional research is needed to address the lack of representation of ethnic groups to identify heritage-specific determinants, as by doing so may highlight important differences in decision-making preferences for older racial minority patients in primary care settings.

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