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Identification of and Beliefs about Depressive Symptoms and Preferred Treatment Approaches Among Community-living Older African Americans

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Abstract

Objective—To examine older African American’s recognition of and beliefs about depressive symptoms, preferred symptom management strategies, and factors associated with willingness to use mental health treatments. Differences between depressed and non-depressed and men and women were examined.

Design—Cross-sectional survey.

Setting—Home, senior center.

Participants—153 senior center members (56=males, 97=females) 55 years.

Measurements—Using a depression vignette, participants indicated if the person was depressed and their endorsement of items reflecting beliefs, stigma, symptom management, and willingness to use treatments (yes/no). PHQ-9 assessed current symptomatology.

Results—Overall, 24.2% reported depressive symptoms (5); 88.2% correctly identified the person in the vignette as depressed. Most (75%) endorsed active symptom management strategies, preference for treatment in physician and therapist offices, and willingness to take medications, seek therapy, see doctor and attend support groups; <33% viewed depression as stigmatizing whereas 48% viewed depression as normal aging. Logistic regressions revealed lower education, higher physical function and feeling okay if community knew of depression diagnosis were associated with willingness to see physician if feeling depressed; being married and

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believing anti-depressant medications are beneficial were related to willingness to use medications. Different associations emerged for depressed/non-depressed and men and women.

Conclusions—Overall, this older African American sample had positive attitudes and beliefs and endorsed traditional treatment modalities suggesting that beliefs alone are unlikely barriers to underutilization of mental health services. As different factors were associated with willingness to seek physician help and use medications and factors differed for depressed/non-depressed and by sex, interventions should be tailored.

Keywords

Depression; health disparities; depression beliefs

OBJECTIVES

Depression, one of the most common and debilitating conditions in late life, continues to be under-detected and undertreated, particularly among older African Americans.(1,2,3) In primary care, the principal setting for depression treatment with older adults, providers are less likely to spend time on mental health concerns, identify symptomatology, or offer treatment options to African Americans compared to Whites.(3,4,5) A recent national probability survey shows that most older African Americans with mental health disorders do not receive professional help.(6) This mental health disparity remains troublesome as older African Americans have greater exposure to conditions that place them at increased risk of depression compared to their White counterparts. These include higher rates of chronic illness, functional disability, and multiple social structural barriers (low income, poor neighborhood quality).(7,8)

To explain mental health disparities, considerable attention has been directed at examining beliefs about depression, stigma, and treatment preferences. This approach is supported by theoretical frameworks and empirical evidence suggesting that beliefs and attitudes predict depression treatment behaviors. (9,10,11) Overall, this research suggests that compared to non-Hispanic Whites, older African Americans tend to hold more negative views of depression and its treatment, consider it socially embarrassing, a personal weakness, misinterpret depressive symptoms, believe one must deal with depression alone or through prayer, rely on family and friends, and be less likely to accept pharmacotherapy and psychotherapy treatments. (12,13,14)

One limitation of this research is reliance on primary care settings for subject enrollment. It is unclear whether findings from this setting are generalizable to community-based, non-clinical samples. Another limitation is use of a comparative approach where beliefs and behaviors of African Americans are evaluated against a majority perspective. This approach may mask important intra-group heterogeneity and differences based on numerous factors such as gender or presence of depressive symptomatology.(6,10)

As to gender, epidemiologic research consistently shows that depression is more common in women, women are more likely than men to seek help from physicians, and men tend to endorse more negative attitudes toward depression and its treatment.(10,15–19) Moreover,

depressed men are less likely to receive treatment than women, with minority older men at particular risk as their depression is least likely to be detected and treated in primary care. (16) There is also evidence that symptom recognition and treatment preferences may differ for individuals with and without depressive symptoms. Recognition of problems are typically higher for individuals with a psychiatric diagnosis or those experiencing significant distress.(30) Also, having depression may be associated with greater religiosity. Distressed individuals may turn to religion as a coping mechanism more so than non-distressed individuals, a phenomenon referred to as religious consolation.(37) Nevertheless, it is unclear whether these differences exist for older African American men and women and depressed and non-depressed.

This study examines depression beliefs, symptom management strategies, stigma, and willingness to seek different treatments in a community-based sample of older African Americans. We asked four specific research questions: What is the prevalence of endorsement of depression beliefs, management strategies, stigma and willingness to engage in different treatments? Are there gender differences in the endorsement of items? Are there differences in endorsement of items based on presence of depression symptoms? What specific factors (depression beliefs, stigma, and religious coping) influence perceived willingness to seek physician help and use anti-depressant medications? These factors have previously been identified as contributors to the underutilization of mental health services. (20–22) As an exploratory cross-sectional study, we did not have specific hypotheses concerning the prevalence of endorsement of any one item. However, consistent with previous research findings, we did anticipate these gender differences: a higher rate of endorsement of perceived stigma for men more so than women; and a higher rate of indicating the intent to use religious forms of coping among women than men. We also expected that more individuals who scored as having depressive symptoms scores would recognize symptoms and use religious forms of coping more so than those scoring as non-depressed.

This descriptive study adds incrementally to previous investigations in several ways. First, it involves a community-based sample of urban-dwelling senior center members. Although most senior centers do not systematically screen for or offer depression treatments, they are part of an aging service network and reach vulnerable adults at risk for behavioral health problems. Identifying attitudes, beliefs and preferred practices of this understudied group may guide development of new pragmatic approaches to supporting positive mental health and reducing disparities that involve senior centers.(1,23–24) Second, investigating differences between men and women and those with and without depression symptoms within the older African American community has received little attention but can inform tailoring mental health treatments. Third, examining independent, unique contributions of select factors previously shown as contributors to mental health disparities provides insight as to their specific influence for a community-based sample of older African Americans.

Conceptual Model

Figure 1 provides a conceptual model developed for this study that illustrates a hypothetical trajectory from symptom recognition to adoption of symptom management strategies to

seeking treatment. We also draw upon the Theory of Reasoned Action which suggests that behavioral intention depends upon beliefs and practices of a behavior and the perceptions of acceptability of that behavior by others. It is assumed that if a person indicates likelihood of participating in a behavior, then they are more likely to actually do so.(9)

METHOD

Sample

Participants were recruited between September 2008 and August 2009 using advertisements in a Philadelphia senior center membership newsletter, Center in the Park (CIP). Eligible participants were community-living, self-identified as African American, and willing to participate in up to a 2 hour face-to-face interview. Individuals were excluded with cognitive impairment (6 item Mini-mental State Examination telephone screen) and if in assisted living. Interested CIP members contacted an on-site research team member who explained study procedures and administered a brief eligibility screen. Of 190 individuals screened, 153 (81%) were eligible and willing to participate. Interviews occurred on-site at CIP or at participants' homes depending upon participant preference. Written, informed consent was obtained using an Institutional Review Board approved form prior to initiating the interview.

Measures

Basic demographic characteristics identified in previous research as associated with depression were used as covariates including: gender, age, marital status (married, single), education (<high school, high school/GED equivalent, >high school), and economic well-being (0=not difficult at all; 1=not very difficult; 2= somewhat difficult; 3=very difficult paying for basics).

Health—Participants indicated the presence (yes/no) of up to 19 common health conditions (e.g., diabetes, heart disease, arthritis). A score reflecting a count of the total number of conditions endorsed was derived. An item from the SF-36 was used to determine pain interference with normal work in past 4 weeks (1=not at all to 5=extremely). (25) Functional difficulty was measured using the *Late Life Function and Disability Instrument* (FDI).(26) Participants rated difficulty performing 23 tasks (1=“can not do” to 5=“none”) with scores representing mean response across items and higher scores indicating better physical function ($\alpha=.96$ for sample).

Religious Coping—Participants were asked to think of and describe a stressful situation that they encountered within the past year. A “stressful situation” was defined as any situation that the person found troubling or otherwise caused worry. Participants were then asked to respond (0=“did not use” to 3=“used a great deal”) to a 9-item factor analyzed dimension of the Africultural Coping Systems Inventory. (27) Items included: “Read bible”, “Left matters in God’s hands”, “Asked for spiritual guidance”, “Went to church”, “Hoped things would get better”, “Asked others to pray for me”, “Read inspirational books”, “Prayed/read bible/went to church”, and “Helped others with their problems.” A score reflecting mean response across items was derived. Higher scores indicated greater strategy use ($\alpha=.83$ for sample).

Depression—The 9-item Patient Health Questionnaire (PHQ-9) was used to measure current depressive symptoms.(29). Scores range from 0 to 27 with 5, 10, 15 and 20 representing mild, moderate, moderately severe and severe depression respectively ($\alpha=.75$ for sample).

To examine symptom recognition, depression beliefs, symptom management strategies, stigma, and treatment preferences, participants were read a depression vignette adapted from previous research.(20)

“For the past 2 months, you have been feeling down and have lost interest in many of your normal activities. You aren’t interested in being with friends and family; you feel tired much of the day and lack the energy to do the things you want or need to do. It has even been an effort to get to church. Lately you are having trouble sleeping and your appetite has been up and down.”

Participants were asked if they would describe themselves as depressed if they hypothetically felt like the person in the vignette (yes/no). They were then asked to respond to single items reflecting depression beliefs, stigma, symptom management strategies and treatment preferences using response options of 1=“definitely no”, 2=“probably no”, 3=“probably yes”, 4=“definitely yes” which were subsequently collapsed to yield a dichotomous score (“0”=“definitely no,” “probably no”; “1”=“probably yes,” “definitely yes”).

Depression beliefs: We included 2 items (“Depression is normal part of aging”; “Older adults can benefit from depression medication”) adapted from previous research. (29)

Symptom management: We developed items to reflect strategies managing symptoms based on previous research. These included: behavioral activation (3 items: “force self to do activities”, “exercise,” “visit/talk to family/friends”), cognitive reframing (2 items: “tell self to snap out of it”, “wait for feeling to pass”), and use of faith (2 items: “pray”, “turn to faith”).

Response to physician diagnosis: Items included: “agreeing with doctor” (1 item), and stigma (3 items: “sign of personal weakness,” “scared others would find out,” “feel okay if community knew of diagnosis”).

Treatment preferences: We examined six treatment sites (doctor’s office, therapist’s office, community-based clinic, church, senior center, home), and willingness to participate in four common treatments: prescription medications, psychotherapy, support group, seeing a doctor.

Data Analysis

Descriptive data included sociodemographic characteristics (age, education, marital status, economic well-being), health-related factors (health conditions, function, pain), psychosocial factors (PHQ-9, identification of depressed mood, religious/spiritual coping, depression beliefs, symptom management strategies, reaction to physician diagnosis, and treatment preferences). Individuals were divided into a depressed (score of 5 on the

PHQ-9) or non-depressed (<5) group. Chi square and Wilcoxon rank-sum (Mann-Whitney) tests were used to compare male and female and depressed and non-depressed participants on symptom management strategies, responses to diagnosis, setting and treatment preferences.

Separate hierarchical logistic regression models with a three-block design were used to analyze responses of the entire sample to “willingness to see a doctor” for depression, and “willingness to use prescription medications.” As there was insufficient variation for other mental health treatments such as “individual therapy” and “support group,” these treatment options were not considered for the logistic regression analyses.

For willingness to see physician and use medications, Block I for each analysis included covariates associated with these outcomes (age, education, marital status, function, current depression level, economic well-being, pain). Block II included gender and Block III included one of several factors (religious/spiritual coping, each of the three stigma items, and two depression belief items) in which each item was entered in a separate analysis to evaluate their independent contribution after controlling for background characteristics in Blocks I and II.

SPSS version 18.0 was used with significance level set at .05. All statistical tests were two-sided.

RESULTS

Overall, participants were on average 73.0 (SD=7.8) years of age, were primarily female, single, with most having high school education and reporting minimal difficulty paying for basics. Participants had an average of 5.5 (SD=2.8) health conditions, and reported having some functional difficulty and pain. Also, this sample reported minimal use of religious/spiritual coping strategies. (Table 1)

As to gender differences, a smaller percentage of women were married than men (Pearson χ^2 (df=1) = 9.18, $p=.002$); women had on average more health conditions than men (Mann-Whitney $z = -2.32$, $p<.020$); women had slightly more economic difficulty than men (Mann-Whitney $z = -3.07$, $p=.002$). Women also reported more functional difficulty than men (Mann-Whitney $z = -3.03$, $p=.002$), and more pain than men (Mann-Whitney $z = -2.49$, $p=.013$). (Table 1)

As to differences between depressed or non-depressed groups, the depressed group had more economic difficulties than the non-depressed (Mann-Whitney $z = -4.35$, $p<.001$); more health conditions than the non-depressed (Mann-Whitney $z = -4.68$, $p<.001$); greater functional difficulty than non-depressed (Mann-Whitney $z = -4.35$, $p<.001$) and more pain than non-depressed (Mann-Whitney $z = -3.41$, $p<.001$). (Table 1)

Depression

For the sample overall, 24.2% had depressive symptoms (PHQ9 ≥ 5), with most scoring in the mild range (5–9). Most (88.2%) correctly identified the person in the vignette as depressed.

As to gender, there were no statistically significant differences between men and women in identifying the person in the vignette as depressed.

The depressed group scored primarily in the mild range (70.3%) with no one scoring with severe depression. This group was more likely (97.3%) than the non-depressed group (85.3%) to identify the person in the vignette as depressed (Pearson χ^2 (df=1) = 3.86, $p < .05$).

Depression Beliefs

Almost half of the total sample (46.7%) believed that depression was a normal part of aging; whereas most (87.6%) also believed depression medications were beneficial. Women were more likely to endorse the belief of depression as normal to aging than men (Pearson χ^2 (df=1) = 5.82, $p = .016$). There were no statistically significant differences between men and women concerning the belief that medications are beneficial. There were no statistically significant differences concerning depression beliefs between the depressed and non-depressed groups. (Table 1)

Symptom Management

Most participants (82%) endorsed behavioral activation and faith-based strategies to manage depressive symptoms and the cognitive reframing technique, “telling self to snap out of it.” Less than 35% of the total sample indicated they would “wait for feelings to pass” if depressed. (Table 2)

To manage symptoms, more women indicated they would rely on faith including prayer than men (Pearson χ^2 (df=1)=16.0, $p < .001$) and turning to faith than men (Pearson χ^2 (df=1)=4.5; $p = .033$). Also, women were less likely to indicate they would go to a doctor than men (Pearson χ^2 (df=1)=5.8, $p = .016$) if feeling depressed. (Table 2)

To manage symptoms, 100% of the depressed group indicated using prayer versus 87.9% of those who were not depressed (Pearson χ^2 (df=1)=4.92, $p = .027$). (Table 2)

Response to Diagnosis

In response to receiving physician’s depression diagnosis, most indicated they would agree with doctor (90.2%) with <33% feeling stigmatized.

Fewer women compared to men believed a depression diagnosis was a sign of personal weakness (Pearson χ^2 (df=1)=4.6, $p = .032$); whereas close to twice the number of individuals with depression than the non-depressed would be scared others would find out (Pearson χ^2 (df=1)=4.20, $p = .040$). (Table 2)

Treatment Preferences

Most participants would want to be treated in a doctor’s and therapist’s office, or at home versus senior center, church or clinic. There were no statistically significant differences between women and men or depressed/non-depressed groups concerning treatment site preferences.

As to treatment, although most (69%) indicated they would participate in each of four treatments (medications, psychotherapy, support group, seek physician help), more would seek therapy and attend support groups compared to seeing a doctor or taking medication.

We observed statistically significant differences between women and men for two treatments: women were less likely than men to be willing to take medications (Pearson χ^2 (df=1)=6.9, p=.009). Likewise, women compared to men were less willing to see a doctor to manage depression (Pearson χ^2 (df=1)=5.8, p=.016).

We did not observe any statistically significant differences between depressed and non-depressed for these items. (Table 3)

Correlates of “willingness to see a doctor”

For the total sample, those with less education, better physical function, and “feeling okay if community knew” were more willing to seek physician help. Other factors (religious coping, stigma, and depression beliefs) were not independently associated with seeking physician help. Neither gender nor depressive symptom level were associated with seeking physician help (Table 4)

Correlates of “willingness to use prescription medications”

For the sample overall, being married and believing in medication benefit were statistically significantly associated with willingness to use prescription medications. Other factors (religious coping, stigma, and depression beliefs) were not independently associated with willingness to use medications. Neither gender nor depressive symptom level were associated with willingness to take medications. (Table 4)

DISCUSSION

The key findings of this study are that for the sample overall, most participants recognized depressive symptoms (88.2%), endorsed active symptom management strategies (>80%), were would be willing to take medications (69.3%), and engage in other mental health treatments (75% for individual therapy, support groups, and seeing a doctor) if depressed. Only a third endorsed negative help-seeking strategies (35% would wait for feelings to pass). Although we did not have specific hypotheses regarding prevalence rates, based on previous research we did anticipate a high endorsement of stigma. However, we found that less than a third of the sample overall endorsed each of the 3 stigma items.

This study also shows that for the sample overall, willingness to see a doctor or use medications if depressed were not associated with factors previously suggested as contributors to underutilization of mental health services including use of religious/spiritual coping, stigma, and depression beliefs, after controlling for background characteristics. Stigma did play some role. Individuals who projected feeling comfortable if their community knew of a depression diagnosis had twice the odds of being likely to seek physician help if depressed. For medications, not surprisingly, individuals believing in the value of pharmacotherapy were more likely to endorse willingness to use medication if diagnosed with depression.

These findings are counter to earlier research on mental health disparities, but consistent with more recent studies involving community-based samples (30), or studies examining beliefs within African Americans and which find greater heterogeneity in responses.(6) Inconsistencies across studies may be due to differences in samples (clinic versus community) and study designs (between versus within group comparisons). Also, studies of beliefs and intentions such as this study may differ from those reporting actual health service utilization.

This study also shows that men and women were equally able to detect depressive symptoms and similarly endorsed symptom management strategies, preferences for treatment settings and willingness to use common mental health services. There were, however, a few important differences. More than half of women endorsed the belief that depression was normal compared to only a third of men; women were also less likely than men to be willing to take medications if depressed, although, women believed similarly as men in the benefits of depression medication. Another gender difference concerned faith and religious/spiritual coping. Consistent with previous research and as we anticipated, African American women reported that they would use religion/spirituality and turn to faith more than men if depressed.(31) Yet, religious coping was not associated with willingness to seek physician help or use medications as suggested by others. (32)

Another important gender difference concerned the belief of depression as a sign of personal weakness, an item reflecting a form of stigma. More men (39%) than women (23%) endorsed this item as we initially hypothesized. Social norms of traditional masculinity may explain in part the endorsement of this item.(33) Nevertheless, although help seeking patterns in men are consistently lower than in women, particularly for depressive symptoms (33), for this sample, having this belief was not associated with willingness to seek medical attention or use medications under a hypothetical condition of depression.

It is unclear why gender differences in beliefs and strategy use exist. As beliefs may affect intentional behavior differentially, the findings here suggest that depression education may need to be tailored to the differing perspectives of men and women

Noteworthy is that we found a relatively high rate of depressive symptoms (24.2%) among this group of active senior center members when combining symptoms of minor and major depression. Prevalence was only slightly higher among men (28.6%) than women (21.6%). This rate overall is higher than a recent population-based survey of older Americans which found a prevalence rate of 11.19% among White, Hispanic and African Americans with the latter having the lowest rates.(34) Yet our finding is consistent with studies involving community-living older African Americans (35) and with the National Survey of American Life which included African Americans and Caribbean Blacks.(36) Inconsistencies may be related to geographic variations, measurement issues and sampling techniques and suggests more research is warranted to understand nuances among older African American communities.

As expected, there were a few differences between individuals who were depressed and those who were not. Consistent with other research, the depressed group experienced greater

distress (more health conditions, pain, and greater financial burden). More individuals (close to 100%) in the depressed group also recognized symptomatology in the vignette although depression recognition was high among non-depressed (85.3%). Noteworthy is that depression beliefs, coping, and symptom management strategies did not differ between the two groups with the exception of prayer in which 100% of individuals who had depressive symptoms endorsed prayer as a coping strategy compared to an equally high but slightly lower number (88%) of non-depressed individuals. This lends some support to the religion consolation thesis which posits that poor health drives many people to greater engagement in religious practices.(37)

Also of importance is that close to half of those with depressive symptoms endorsed fear that others would find out compared to less than a quarter of the non-depressed suggesting that stigma continues to be part of the experience of depression.

A concern is that close to half of the sample (46.7%) believed depression was normal with more women believing this than men. Although this belief was not associated with the intention to seek physician help or take medications if diagnosed with depression, it does suggest the need for community education. Also disconcerting yet consistent with previous studies is the evidence of stigma; for men, who see it as a sign of personal weakness; and for those with depression, who are scared others will find out. Stigma in the form of community knowledge of the diagnosis was also associated with willingness to see a physician. Thus, different forms of stigma appear to influence intentional behavior.

As to treatment setting preferences, if depressed, this sample would overwhelmingly prefer physician and therapist offices (85%) and this is consistent with previous research. (6) However, also favorable was treatment at home (75%). The latter is noteworthy as new depression treatments and settings are needed for this population and the home maybe an alternative to the mental health clinic for which there is consistently little support.(24)

These findings have implications for developing pragmatic strategies for involving senior centers in addressing disparities in mental health services for older African Americans. It suggests that senior centers could have an important education, prevention and detection role and address stigma; but they may not be a preferred site for delivery of mental health services for African American members. However, the endorsement of support groups by both women and men (84%) in this sample suggest that this approach may be an acceptable offering in a senior center.

Among limitations of this study is the relatively small sample of convenience and its non-representativeness. We do not know whether these inner city senior center members differ from those in the community at-large. Also, this survey did not include medication or treatment history and thus we are unable to examine how these factors may influence treatment preferences. Nevertheless, a strength of this study is that it enrolled a group not previously examined, and 36% were older African American men, an understudied group. Understanding depression beliefs, preferred management styles and treatment intentions of this group is important for designing innovative depression interventions that can effectively target this undertreated group.

Another limitation is that as a cross-sectional study of beliefs, causal relationships can not be assumed nor can actual service utilization of mental health services be surmised. Further research is warranted to substantiate the associations found and to link these beliefs to utilization behaviors. Furthermore, because there are few psychometrically sound scales available reflecting factors that may be predictive of intention to seek mental health treatments, the items developed for this study have only face validity.

Despite limitations, this descriptive study provides insight and a more nuanced understanding of depression beliefs from which to tailor depression prevention and treatment interventions for older urban African Americans. It suggests that negative depression beliefs and stigma are not uniformly endorsed but do exist among this group. Although depression beliefs and stigma may play some role in treatment preferences, only certain beliefs and forms of stigma (others may find out) may do so and belief patterns may affect intentions for men and women and depressed and non-depressed differently. Of significance is that factors previously considered as barriers to help-seeking including reliance on religious coping, stigma and certain depression beliefs were not deterrents at least as it concerns the intention to seek treatments in this sample. Thus, other factors such as existing resources and access to adequate depression screening may play a bigger role in perpetuating mental health disparities for this group.

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Figure 1.
Conceptual Framework: Trajectory from Symptom Recognition to Treatment

Table 1

Characteristics of total sample and by gender and depression group (N = 153)

Background	Total (N=153)	Female (n=97)	Male (n=56)	Difference	
Mean age (SD)	73.0 (7.8)	72.6 (8.2)	73.6 (7.2)	-1.0 ^a	2.9 ^a
Gender (%)					
Female	63.4			21.6	78.4
Male	36.6			28.6	71.4
Education (%)					
<HS	20.3	15.5	28.6	-13.1 ^b	16.0 ^b
HS/GED	36.6	38.1	33.9	4.2 ^b	-2.0 ^b
>HS	43.1	46.4	37.5	8.9 ^b	-14.2 ^b
Marital status (%)					
Single	73.2	81.4	58.9	22.5 ^b	-3.3 ^b
Married	26.8	18.6	41.1	-22.5 ^{b**}	0.3 ^b
Median economic well-being ^c	1.0	1.0	0.0	1.0 ^{d**}	2.0 ^{d***}
Health and Function					
Mean # of health conditions (SD)	5.5 (2.8)	5.8 (2.8)	4.9 (2.5)	0.9 ^{a*}	-2.5 ^{a***}
Mean Function (SD)	4.2 (0.8)	4.0 (0.8)	4.4 (0.8)	-0.4 ^{a**}	0.6 ^{a***}
Mean pain interfering with work (SD) ^d	2.1 (1.3)	2.3 (1.3)	1.7 (1.1)	0.6 ^{a*}	-3.7 ^{a***}
Depression					
Depression Severity (%)					
Minimal/no depression	75.8	78.4	71.4	7.0 ^b	100.0
Mild depression	17.0	13.4	23.2	-9.8 ^b	70.3
Moderate depression	4.6	5.2	3.6	1.6 ^b	18.9
Moderately severe depression	2.6	3.1	1.8	1.3 ^b	10.8

	Total (N=153)	Female (n=97)	Male (n=56)	Depressed (n=37)	Non-depressed (n=116)
Severe depression	0.0	0.0	0.0	0.0	-----
Correctly identified person in vignette as depressed (%)	88.2	90.7	83.9	97.3	85.3
Depression as normal part of aging ^e (%)	46.7	54.2	33.9	40.5	48.7
Can benefit from depression medication (%)	87.6	84.5	92.9	89.2	87.1
				-8.4 ^b	2.1 ^b
Coping					
Mean religious/spiritual coping (SD) ^e	1.6 (0.7)	1.7 (0.6)	1.4 (0.7)	1.8 (0.6)	1.6 (0.7)
				0.3 ^{a**}	0.2 ^a

* p<.05,

** p<.01,

*** p<.001

^aWilcoxon rank-sum (Mann-Whitney) test.

^bPearson's Chi square test (df=1).

^cMedian response = "not very difficult paying for basics like food, housing, medical care, etc.

^dValue represents participants' mean response (1=not at all – 5=extremely).

^eN = 152.

Table 2

Endorsement of symptom management strategies and responses to physician diagnosis for total sample and by gender and depression group (N=153).

Symptom Management ^a	Total (N=153)	Female (n=97)	Male (n=56)	Depressed (n=37)	Non-depressed (n=116)	Difference ^b
Behavioral activation (%)						
Force self to do activities	93.5	91.8	96.4	89.2	94.8	-5.6
Exercise	86.9	84.5	91.1	81.1	88.8	-7.7
Visit/talk to family/friends	81.7	84.5	76.8	73.0	84.5	-11.5
Cognitive reframing (%)						
Tell self to snap out of it	90.8	89.7	92.9	91.9	90.5	1.4
Wait for feelings to pass	34.6	38.1	28.6	43.2	31.9	11.3
Use of faith (%)						
Pray	90.8	97.9	78.6	100.0	87.9	12.1*
Turn to faith	89.9	93.8	82.7	94.6	88.3	6.3
Response to diagnosis^a						
Agree with doctor (%)	90.2	90.7	89.3	89.2	90.5	-1.3
Stigma (%)						
Sign of personal weakness	28.9	22.9	39.3	37.8	26.1	11.7
Scared others would find out	27.5	23.7	33.9	40.5	23.3	17.2*
Feel okay if community knew	33.3	33.0	33.9	27.0	35.3	-8.3

* p<.05,

** p<.01

^a Collapsed response = definitely yes/probably yes.

^b Pearson Chi square test (df=1).

Table 3

Treatment preferences for total sample and by gender and depression group (N=153)

Setting Preference (%) ^a	Total (N=153)		Male (n=56)		Depressed (n=37)		Non-depressed (n=116)		Difference ^b
			Female (n=97)						
Doctor's office	84.8		81.4	90.7	81.1	86.0			-4.9
Therapist's office	93.4		92.8	94.4	91.9	93.9			-2.0
Community clinic	34.4		29.9	42.6	37.8	33.3			4.5
Church	41.7		38.5	47.9	41.7	41.7			0.0
Senior center	48.3		44.8	54.7	40.5	50.9			-10.4
Home	74.8		75.3	74.1	70.3	76.3			-6.0
Depression Management (%)^a									
			%		%		%		Difference ^b
Willing to take prescription medications	69.3		61.9	82.1	70.3	69.0			1.3
Willing to use individual therapy	92.8		92.8	92.9	94.6	92.2			2.4
Willing to attend support group	86.3		87.6	83.9	89.2	85.3			3.9
Willing to see doctor	74.5		68.0	85.7	70.3	75.9			-5.6

* p<.05,

** p<.01

^a Collapsed response = definitely yes/probably yes.^b Pearson Chi square test (df=1).

Table 4

Logistic regression models for willingness to “see a doctor” and “use prescription medication” for total sample (N=153).

Predictor	See a Doctor ^a				Use Prescription Medication ^a			
	Odds Ratio	95% CI	Wald ^b	p	Odds Ratio	95% CI	Wald ^b	p
Block I								
Age	1.03	0.97, 1.08	0.90	.343	1.03	0.98, 1.08	1.24	.265
Education	0.50	0.29, 0.87	6.10	.014*	1.05	0.64, 1.72	0.04	.844
Marital status	2.18	0.81, 5.91	2.35	.125	4.72	1.60, 13.95	7.89	.005**
Function	2.01	1.04, 3.91	4.31	.038*	1.60	0.86, 2.98	2.18	.140
PHQ9 score	1.00	0.90, 1.11	0.00	.973	1.07	0.96, 1.19	1.45	.229
Economic well-being	0.98	0.63, 1.51	.928	.928	1.06	0.70, 1.60	.795	.795
Pain interfering w/work	1.36	0.89, 2.08	.153	.153	0.94	0.64, 1.39	.757	.757
Block II								
Gender	1.03	0.18, 1.20	2.52	.409	0.49	0.20, 1.18	2.52	.112
Factors^c	0.50							
Religious/Spiritual coping	2.18	0.60, 2.00	0.82	.774	1.30	0.72, 2.35	0.77	.301
Sign of personal weakness	2.01	0.74, 1.79	0.38	.535	0.89	0.59, 1.35	0.31	.580
Scared others would find out	1.00	0.65, 1.62	0.01	.925	0.77	0.51, 1.18	1.45	.388
Feel okay if community knew	0.98	1.06, 2.66	4.86	.027*	1.11	0.75, 1.67	0.31	.579
Depression normal part of aging	0.89	0.58, 1.35	0.32	.570	1.31	0.88, 1.95	1.78	.345
Can benefit from medications	1.58	0.97, 2.59	3.30	.069	1.91	1.17, 3.12	6.74	.009**

* p<.05,

** p<.01

^a Collapsed response = definitely yes/probably yes.

^b df=1.

^c Each factor was entered into the model in separate logistic regression as Block III.