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Examining Help-Seeking Intentions of African American College Students Diagnosed with Depression

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Abstract

A depressed African American emerging adult's intention to seek help can be affected by the severity of their mental health or perception of self-flourishing, or positive mental health. Using the Healthy Minds Study, a nationally representative dataset, utilization of mental health services among African American emerging adult students who have been diagnosed with depression by a health professional ($n = 201$), and the mediating effect of positive mental health on help-seeking intentions were examined. The findings revealed that 89.45% of students reported help-seeking intentions, and they may have one or more than one way of seeking help from a professional clinician, roommate or friend, or significant. The findings show that there are specific groups of people that African Americans prefer to engage with when addressing their mental health. It is critical that we consider these groups when developing interventions or programs for their service access on college campuses and beyond.

Keywords Mental health · Depression · African American · College student · Help-seeking · Positive mental health

Introduction

In 2017, the National Institute of Mental Health (NIMH) reported an estimated 17.3 million U.S. adults age 18 or older that had at least one major depressive episode [1]. Since this report, depression diagnoses have increased across the world and are now a pressing public health concern. In 2018, the World Health Organization recognized depression as the leading cause of disability worldwide with more than 264 million people of all ages suffering from it [2]. In order to understand the nuances of depression, it is important that the definition of depression is identified to categorize the type of mental illness being referenced in this study.

Depression is defined as a common but serious mood disorder that affects how an individual thinks, feels, and handles daily activities for 2 weeks or longer [1]. It is a complex disorder with varying levels of severity and types such as dysthymia, bipolar/manic depression, and major depressive disorder. While not exhaustive, these are some of the more widely diagnosed forms of depression. When major depressive disorder is discussed, it often invites discussion of all forms of depression because of its broad and inclusive definition of being a serious mood disorder showing depressive symptoms for 2 weeks or greater. For the purposes of this study, depression will not be limited to one form of depression.

The young adult development stage ages 18 through 25 is a particularly important to dissect and understand how people cope with this disorder because it is a period where a number of transitions often occur. Jeffery Arnett, a leading researcher in developmental psychology, calls this period emerging adulthood and describes it as the "conception of development for the period from the late teens through the twenties, with a focus on ages 18-25" [3]. In 2012, emerging adults had a higher percentage of major depressive episode in that year than those aged 50 or older and those aged 26–49, accounting for 8.9% of adults aged 18 or older [4]. While well-known agencies, such as Substance Abuse and Mental Health Services Administration (SAMHSA), have identified depression as a health problem affecting emerging adults, little is known about how they cope. The transactional model of stress and coping, developed by Lazarus and Folkman, defines coping as how an individual responds to a stressful situation or

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environment [5]. Help-seeking is a coping response to a mental illness like depression. Researchers often refer to this type of help as active coping or using emotional or instrumental support where an individual takes "action to try to get rid of or decrease the stressor or its consequences" or "asks for advice, help, or information" or seeks "emotional support, sympathy or understanding" [6, 7]. A traditional form of coping with depression is to seek help from a counselor. Environments that provide affordable access to counselors for this age group are found primarily on college campuses. African American emerging adult college students who have been diagnosed with depression seek help from specific people often due to environmental factors like strong cultural norms, stigma, and lack of African American mental health providers. Although research focused on help-seeking behaviors has increased, few researchers have explored help-seeking intentions in African American emerging adults on college campuses. The purpose of this study is to explore the effect positive mental health has on help-seeking behaviors in African American students who have been diagnosed with depression and who they seek help from. We hypothesize that sample participants that who have greater positive mental health will be more likely to seek help. Implications from this research will support the development of more meaningful campus support tools and resources for the African American emerging adult student community.

Depression and Seeking Help in African American Community

While depression is a disorder that affects many communities, it has a lasting impact on African Americans. The US Health and Human Services Office of Minority Health reports adult African Americans that are 20% more likely to report serious psychological distress than adult whites [8]. Studies also show African Americans with mood disorders are more likely to be persistently ill with respect to mood disorders [9]. While statistics show African Americans are more likely to report serious mental distress, research over the past 25 years shows that African Americans are less likely to use mental health services for a myriad of reasons including stigma, perceived discrimination, and lack of access to services [10–12]. A meta-analytic review of preference, perception, and outcomes of racial/ethnic matching of patients to therapists further validates this point that lack of African American therapists in mass that may contribute to the lack of access to mental health services for this community. This review showed that African Americans strongly prefer therapists of their own race and ethnicity and that "their perception of therapists varied substantially as a function of racial/ethnic matching" [13]. However, even if they believe in service effectiveness, utilization may not increase in African Americans who are more likely to believe treatment is unnecessary [14]. Researchers have found contributing factors to this African American belief towards mental health treatment stems from a history of actualizing positive mental health aspects within themselves and seeking help through other avenues such religious counselors [15]. Older African Americans, in particular, value privacy, respect, and comfortability that they receive from their pastor and faith community, often passing that belief to other family members. Wharton et al. [15] found that trust is a large part of that belief when African American study participants described trusting members of their faith communities because of familiarity and shared experiences and values.

Another avenue African Americans seek help through is social support. Recent studies show that within group social support among African Americans does protect against and mitigate major depressive disorder and or depressive symptoms [16]. In fact, friendships are seen as important "stress coping resources" among African Americans [16]. Measuring friendship by feelings of closeness, frequency of contact, and how often an individual helps his/her friend out were included in the definition of social support from friendships [16]. However, there is research that disputes these findings when taking a deeper look at Caribbean Blacks versus African Americans. A cross-sectional study of the National Survey of American Life (NSAL) found that the odds of reducing depression in African Americans is not affected when controlling for social support and demographics for Caribbean Blacks and African Americans [17]. While differing opinions and research exists, little research has explored how positive mental health and its effects on help-seeking intentions on the African American emerging adult student population.

Positive Mental Health

The emerging adulthood period is a time where many transitions may happen for individuals. For many, it is the first time they will live away from family, discovering themselves apart from familiar influences and create a new sense of self. As this period of growth into adulthood happens, transitory life moments such as marriage, procreating and raising children, social network develop and change, need for financial stability, and establishing career trajectory begin to set. In this developmental period, it is important to look to well-being because these transitions can affect mental health.

For the purposes of this study, well-being is analyzed through the lens of positive mental health and more specifically flourishing. Diener et al. [18] developed an eight-item flourishing scale "designed to measure social-psychological prosperity, to complement existing measures of subjective well-being" [18]. This scale included social relationship items such as "having supportive and rewarding relationships, contributing to the happiness of others, and being respected by others" [18]. These items profoundly influence one's level of

positive mental health and their perception of their ability to flourish.

An example of influence is researchers having studied suicide and positive mental health's impact on college campuses. Studies have shown that suicidal behavior and academic impairment are lowest among students with a current mental disorder who are flourishing. Furthermore, this study found "good mental health" had a 12% higher prevalence in the college student sample compared to the prevalence of good mental health in the U.S. adolescent population [19]. Exploring the concept of the mediating effect of positive mental health on help-seeking intentions within the construct of race, specifically the African American race, will provide further insight into how best to provide targeted avenues to care for this population.

Methods

Data

The Healthy Minds Study (HMS) is an annual national web-based survey that examines mental health, service utilization, and related issues among undergraduate and graduate students [20]. The University of Michigan Health Sciences and Behavioral Health Sciences Institutional Review Board approved the HMS. Thirty-four thousand and two hundred and seventeen participants, men and women ages 18–41+, were randomly selected from the 2015–2016 survey sample received via email. Current enrolled students were over the age of 18. The schools that were considered large provided a random sample of 4000 students. Schools that were considered small provided a sample of all students. Schools that enrolled graduate students typically included both undergraduate and graduate students.

Measures

The HMS is divided into separate modules that focus on receiving responses for specific topics such as positive mental health and mental health utilization. Participants completed the survey by responding to questions in each module. This study analyzed the mediating effect of the positive mental health on help-seeking behaviors of African American emerging adults who have been diagnosed with depression.

Diagnosed with Depression

In order to define the sample population, this study looked at the variable race and excluded all study participants who did not identify as African American/Black when asked what their race/ethnicity was. Next, the sample of African Americans were defined as being depressed if the participant responded yes to the question "have you ever been diagnosed with depression by a health professional". Depression in this dataset is defined as having been diagnosed with any form of depression including, but not limited to, major depressive disorder, bipolar/manic depression, or dysthymia by a health professional.

Help-Seeking Intention

Participants answered the question, "if you were experiencing serious emotional distress, whom would you talk to about this?". The individual response categories of who one would seek help from aligned with each help-seeking intention variable. There were 9 types of help-seeking intentions that participants could select from including professional clinicians (e.g., psychologist, counselor, or psychiatrist), roommate, friend, significant other, family member, religious counselor or other religious contact, support group, other non-clinical source (including an option to write in a specific response), and no one.

Positive Mental Health

Positive mental health was defined using the flourishing scale. This is a brief 8-item measure of the respondent's self-perceived success in areas like relationships, self-esteem, purpose, and optimism [18]. This scale "assess major aspects of social-psychological functioning from the respondent's own point of view" [18]. Response categories range from disagreement to strong agreement. A single psychological well-being score is tallied from this survey with 8 (strong disagreement with all items) being the lowest possible score and 56 (strong agreement with all items) being the highest possible score. Although the original flourishing scale includes eight items that describe aspects of human functioning from positive relationships, to feelings of competency, to having meaning and purpose in your life [18], this study derived the positive mental health variables from Diener and Biswas-Diener's 7-item flourishing scale.

Analytic Sample

Among 1637 African American students, this study sampled 1442 students between the ages of 18 and 29 years old, otherwise known as emerging adult students. From this sample, we extracted an analytic sample of 201 African American emerging adult students who self-reported having been diagnosed with depression by a health professional. The number of evaluable students changed from 201 to 199 due to two observations with missing values for positive mental health and help-seeking intentions. This selected sample excluded students who were older than 29 years old, any non-African American students and any African American student who did not identify as being diagnosed with depression by a health professional.

Covariates

Eight covariates, including age and gender (divided into 3 categories: female, male, and others–those who did not respond), were considered in this study. Relationship status was categorized as single, in a relationship, married or engaged, divorced or separated, widowed, or others. Current financial situation was divided into 3 categories: financial struggle, tight but fine, and not a problem. Similarly, family's financial situation growing up was divided into 4 categories: very poor and not enough to get by, had enough to get by, comfortable, and well to do. Information about years of school and religion importance were also collected. The main independent variable was positive mental health.

Analysis

Three different outcomes were analyzed in the study, respectively: binary help-seeking intention (yes/no), categorical help-seeking group, and number of sources of help-seeking (0, 1, 2, or 3). For binary help-seeking intentions, logistic regression was used to examine the multivariable relationships, using the binary help-seeking intention variable as the outcome. The help-seeking intention variable was categorized as two values where 1 = with help-seeking intention and 0 = without help-seeking intention. Among students with help-seeking intention, they may have one or more than one way of seeking help: professional clinician, roommate or friend or significant others or family members, religious counselor or support group, or other non-clinical source. No help-seeking (i.e., value of help-seeking intention = 0) was selected as the baseline category when conducting the logistic regression.

For categorical help-seeking intention groups, multinomial logistic regression was used to examine the multivariable relationships, taking the categorical help-seeking intention group variable as the outcome. The help-seeking intention group variable was categorized as eight values where group

Table 1 Characteristics of help-seeking intentions of the Healthy Minds Study, 2015–2016

Help-seeking, *n* (%)	
Yes	178 (89.45)
No	21 (10.55)
Type of help-seeking intention chosen (more than one can be chosen at the same time), *n* (%)	
Professional clinician	120 (60.30)
Roommate, friend, significant others, or family members	153 (76.88)
Religious counselor or support group or other non-clinical source	27 (13.57)
Number of help-seeking intention Ccosen, *n* (%)	
0	21 (10.55)
1	70 (35.18)
2	94 (47.24)
3	14 (7.04)
Help-seeking group, *n* (%)	
Profession clinician only (group 1)	17 (8.54)
Roommate, friend, significant others, or family members only (group 2)	48 (24.12)
Religious counselor or support group or other non-clinical source only (group 3)	5 (2.51)
Profession clinician and roommate, friend, significant others, or family members (group 4)	86 (43.22)
Profession clinician and religious counselor or support group or other non-clinical source (group 5)	3 (1.51)
Roommate, friend, significant others or family members, and religious counselor or support group or other non-clinical source (group 6)	5 (2.51)
Profession clinician, roommate, friend, significant others or family members, and religious counselor or support group or other non-clinical source (group 7)	14 (7.04)
None	21 (10.55)

As the number of students in groups 3, 5 and 6 is very small, we combine them into one help-seeking group (i.e., only group 3 or two groups including group 3). There are 13 (6.53%) students in this combination help-seeking group.

1 = professional clinician only, group 2 = roommate or friend or significant others or family members only, group 3 = religious counselor or support group or other non-clinical source only, group 4 = profession clinician and roommate, friend, significant others, or family members, group 5 = profession clinician and religious counselor or support group or other non-clinical source, group 6 = roommate, friend, significant others or family members, and religious counselor or support group or other non-clinical source, group 7 = profession clinician, roommate, friend, significant others or family members, and religious counselor or support group or other non-clinical source, and group 8 = none. We combined groups 3, 5, and 6 into one help-seeking group (i.e., only group 3 or two groups including group 3) because the number of students in these

Table 2 Bivariate analysis of 199 African American students with diagnosed depression and characteristic help-seeking intention of the Healthy Minds Study, 2015–2016

	Overall		Help-seeking	Non-help seeking	*p* value
Level of positive mental health, mean (SD)	39.60 (9.76)		40.40 (9.31)	32.76 (11.00)	0.0055*
Age, mean (SD)	21.29 (2.89)		21.27 (2.85)	21.48 (3.25)	0.7878
Gender, (%)					0.0017*
Male	27 (13.57)		21 (11.80)	6 (28.57)	
Female	160 (80.40)		149 (83.71)	11 (52.38)	
Others	12 (6.03)		8 (4.49)	4 (19.05)	
Relationship status, (%)					0.1393
Single	124 (62.31)		107 (60.11)	17 (80.95)	
In a relationship	57 (28.64)		55 (30.90)	2 (9.52)	
Married or engaged	12 (6.03)		10 (5.62)	2 (9.52)	
Divorced or separated, widowed, or others	6 (3.01)		6 (3.01)	0	
Current financial situation, (%)					0.3056
Financial struggle	73 (36.68)		65 (36.52)	8 (38.10)	
Tight, but fine	94 (47.24)		82 (46.06)	12 (57.14)	
Not a problem	32 (16.08)		31 (17.42)	1 (4.76)	
Family's financial situation growing up, (%)					0.5206
Very poor, not enough to get by	21 (10.55)		18 (10.11)	3 (14.29)	
Had enough to get by	86 (43.22)		76 (42.70)	10 (47.62)	
Comfortable	74 (37.19)		69 (38.76)	5 (23.81)	
Well to do	18 (9.05)		15 (8.43)	3 (14.29)	
Religion importance, (%)					0.9425
Very important	41 (20.60)		37 (20.79)	4 (19.05)	
Important	36 (18.09)		33 (18.54)	3 (14.29)	
Somewhat important	56 (28.14)		50 (28.09)	6 (28.57)	
Not important	66 (33.17)		58 (32.58)	8 (38.10)	
Years of school, (%)					0.9156
1st year	52 (26.13)		46 (25.84)	6 (28.57)	
2nd year	63 (31.66)		56 (31.46)	7 (33.33)	
3rd year	40 (20.10)		36 (20.22)	4 (19.05)	
4th year	31 (15.58)		29 (16.29)	2 (9.52)	
5th year Combine: 5th + year	8 (4.02)	Combine: 13 (6.53)	11 (6.18)	2 (9.52)	
6th year	1 (0.50)				
7th + year	4 (2.01)				

* Statistifically significant

The *p* value for positive mental health and age was calculated based on two-sample *t* test, and the *p* values for other categorical covariates were calculated based on chi-square test. Positive mental health and gender are considered significantly associated with the help-seeking intention (yes/no). Other covariates are not significantly associated with the help-seeking intention (yes/no). As the number of students in (divorced or separated, widowed, or others) was very small, we combine them into one relationship status group. Similarly, years of school groups with 5+ years were combined as well. In the following analyses, combination groups would be used for data analyses.

groups was very small. Therefore, there were 6 categories of help-seeking intention groups in the data analysis. Finally, for number of sources of help-seeking, multinomial logistic regression was used to examine the multivariable relationships, taking the categorical number of sources of help-seeking intention variable as the outcome. The number of sources of help-seeking intention variable was categorized as four values: 0, 1, 2, and 3.

There were 2 missing data for the years of school variable. To account for this, a multiple imputation approach was used to impute the missing data, assuming all missing data were missing at random. Next, a stepwise approach was used for variable selection, and we found that the level of positive mental health, relationship status, and gender is significantly associated with the outcome, binary help-seeking intention. Table 3 shows the adjusted multivariate analysis results.

For bivariate comparisons, two sample *t* tests and ANOVA were used for continuous variables (i.e., age), and chi-square tests were used for categorical variables (i.e., gender, relationship status, current financial situation, family's financial situation growing up, religion importance, and years of school) to examine the overall characteristics of the 199 African American students with diagnosed depression across the main independent variable (level of positive mental health). Tables 4, 5, and 6 show the bivariate analysis results, respectively, with regard to different outcomes. A threshold for statistical significance was set at a two-sided *p* value of 0.05. Statistical analysis was conducted using the R Studio software Version 3.5.

Table 3 Multivariable model of the association between help-seeking intention and level of positive mental health among 199 African American students with diagnosed depression of the Healthy Minds Study, 2015–2016

	OR	95% CI	*p* value
Level of positive mental health	1.07	1.02, 1.12	0.0047*
Gender (ref: male)			
Female	4.00	1.22, 13.13	0.0222*
Others	Not provided		
Relationship status (ref: single)			
In a relationship	7.38	1.20, 45.31	0.0309*
Married or engaged Divorced, separated, widowed, or others	Not provided		

* Statistically significant

CI confidence interval, *OR* odds ratio

The data was estimated based on a logistic regression. As the number of subjects with married, divorced, separated, widowed, or other relationship status and other gender were too small, the corresponding ORs with 95% CIs were not provided (OR = 7.38; 95% CI = 1.2, 45.31).

Results

Descriptive Statistics

The analytic sample consisted of 199 African American students aged between 18 and 29 years old who were diagnosed with depression. Among these students, 160 (80.4%) were female, 27 (13.57%) were male, and the mean (±SD) age was 21.29 (±2.89) years old. Overall, 178 (89.45%) students reported help-seeking intention, and they may have one or more than one way of seeking help: professional clinician, roommate or friend or significant others or family members, religious counselor or support group, or other non-clinical source. Table 1 shows the characteristics of help-seeking intention in the sampled population.

Table 2 shows the bivariate comparison results stratified by help-seeking intention (yes: 1; no: 0). We found out that the mean level of positive mental health was significantly higher in the help-seeking intention group than non-help-seeking intention group (*p* value = 0.0055). In addition, female students reported more help-seeking intention than male students (*p* value = 0.0022). We also found that there were no statistically significant differences in help-seeking intention (yes: 1; no: 0) for age, relationship status, current financial situation, family's financial situation growing up, religion importance, or years of school based on the bivariate comparison analysis. We combined the number of students in divorced or separated, widowed, or others into one relationship status group because of the small number. Similarly, years of school groups with 5+ years were combined as well. In the following analyses, combination groups would be used for data analyses.

Table 3 shows the adjusted associations of level of positive mental health and help-seeking intention. The original model included level of positive mental health, age, gender, relationship status, current financial situation, family's financial situation growing up, religion importance, and years of school as covariates. Stepwise approach was used for variable selection to obtain the adjusted model that included level of positive mental health, gender, and relationship status as covariates. From Table 5, each 1-point increase in reported level of positive mental health increased the odds of the intention to seek help by 7% (OR = 1.07; 95% CI = 1.02, 1.12), after adjusting for covariates. Female students reported greater help-seeking intention than male students (OR = 4.0; 95% CI = 1.22, 13.33). In addition, the students who were in a relationship reported greater help-seeking intention than those who were single.

For categorical number of sources of help-seeking intention outcome, Table 4 shows the bivariate comparison results stratified among different number of sources of help-seeking intention. It was determined that the mean level of positive mental health was significantly associated with the number of sources of help-seeking (*p* value <0.0001). The mean increased as the number of sources of help-seeking intentions increased. In addition,

female students reported more help-seeking intentions than male students (p value = 0.019). Other covariates were not significantly related to the outcome. The none help-seeking intention group was selected as the reference group.

Table 5 shows the adjusted associations of level of positive mental health and number of sources of help-seeking intention. Each 1-point increase in reported level of positive mental health increased the odds of the intention to seek help from 1 source by 5% (OR = 1.05; 95% CI = 1.00, 1.11); after adjusting for covariates, increased the odds of the intention to seek help from 2 sources by 9% (OR = 1.09; 95% CI = 1.03, 1.15) and increased the odds of the intention to seek help from 3 sources by 13% (OR = 1.13; 95% CI = 1.03, 1.23). Therefore, students with higher level of positive mental health are more likely to intend to seek more sources of help. In addition, female students reported greater help-seeking intention than male students. And students who were in a relationship reported greater help-seeking intention than the ones who were single.

Table 4 Bivariate analysis of 199 African American students with diagnosed depression among different number of sources of help-seeking intention of the Healthy Minds Study, 2015–2016

	Number of Sources of help-seeking intention				
	0 (none)	1	2	3	p value
Level of positive mental health, mean (SD)	32.76 (11.00)	38.4 (10.85)	41.32 (7.96)	44.29 (7.64)	< 0.0001*
Age, mean (SD)	21.48 (3.25)	21.3 (2.97)	21.36 (2.85)	20.50 (2.28)	0.54
Gender, (%)					0.019*
Male	6 (28.57)	11 (15.71)	8 (8.51)	2 (14.29)	
Female	11 (52.38)	56 (80)	81 (86.17)	12 (85.71)	
Others	4 (19.05)	3 (4.29)	5 (5.32)	0	
Relationship status, (%)					0.1227
Single	17 (80.95)	42 (60)	57 (60.64)	8 (57.14)	
In a relationship	2 (9.52)	26 (37.14)	25 (26.60)	4 (28.57)	
Married or engaged	2 (9.52)	0	9 (9.57)	1 (7.14)	
Divorced, separated, widowed, or others	0	2 (2.86)	3 (3.19)	1 (7.14)	
Current financial situation, (%)					0.6603
Financial struggle	8 (38.10)	26 (37.14)	36 (38.30)	3 (21.43)	
Tight, but fine	12 (57.14)	33 (47.14)	41 (43.62)	8 (57.14)	
Not a problem	1 (4.76)	11 (15.71)	17 (18.09)	3 (21.43)	
Family's financial situation growing up, (%)					0.7116
Very poor, not enough to get by	3 (14.29)	6 (8.57)	10 (10.64)	2 (14.29)	
Had enough to get by	10 (47.62)	27 (38.57)	45 (47.87)	4 (28.57)	
Comfortable	5 (23.81)	29 (41.43)	33 (35.11)	7 (50)	
Well to do	3 (14.29)	8 (11.43)	6 (6.38)	1 (7.14)	
Religion importance, (%)					0.0693
Very important	4 (19.05)	15 (21.43)	15 (15.96)	7 (50)	
Important	3 (14.29)	13 (18.57)	16 (17.02)	4 (28.57)	
Somewhat important	6 (28.57)	15 (21.43)	34 (36.17)	1 (7.14)	
Not important	8 (38.10)	27 (38.57)	29 (30.85)	2 (14.29)	
Years of school, (%)					0.9118
1st year	6 (28.57)	15 (21.43)	26 (27.66)	5 (35.71)	
2nd year	7 (33.33)	22 (31.43)	31 (32.98)	3 (21.43)	
3rd year	4 (19.05)	17 (24.29)	17 (18.09)	2 (14.29)	
4th year	2 (9.52)	11 (15.71)	14 (14.89)	4 (28.57)	
5th + year	2 (9.52)	5 (7.14)	6 (6.38)	0	

* Statistically significant

The p value for positive mental health and age was calculated based on ANOVA, and the p values for other categorical covariates were calculated based on chi-square test.

Table 5 Multivariable model of the association between number of sources of help-seeking intention and level of positive mental health among 199 African American students with diagnosed depression of the Healthy Minds Study, 2015–2016

	OR_10, 95% CI	*p* value	OR_20, 95% CI	*p* value	OR_30, 95% CI	*p* value
Level of positive mental health	1.05, 1.00, 1.11	0.0686	1.09, 1.03, 1.15	0.0018*	1.13, 1.03, 1.23	0.0056*
Gender (ref: male)						
Female	2.95, 0.83, 10.50	0.0940	5.69, 1.52, 21.34	0.0099*	3.12, 0.46, 21.07	0.2420
Others	Not provided					
Relationship status (ref: single)						
In a relationship	9.15, 1.42, 58.93	0.0198*	6.03, 0.94, 38.66	0.0582	7.93, 0.88, 71.15	0.0645
Married or Engaged Divorced, separated, widowed, or others	Not provided					

CI confidence interval, *OR* odds ratio

The data was estimated based on a logistic regression. As the number of subjects with married, divorced, separated, widowed, or other relationship status and other gender was too small, the corresponding ORs with 95% CIs were not provided

Discussion

The results of this study lead to a conclusion about the link between level of positive mental health in depressed African American emerging adult students' and seeking help from professional clinicians, family members or friends, and other support resources. There is a significant association between help-seeking intentions and positive mental health among depressed African American emerging adult students. The study findings are consistent with previous research in that African Americans often seek help from informal networks to help cope with their depressive symptoms and particularly networks where they consider the relationship with the individual to be close, such as friends or family members [21]. This study supports literature and builds on it by examining the mediating effects of positive mental health that has help-seeking behaviors of depressed African American emerging adult students seek help from.

The increasing prevalence and disabling impact of depression in the emerging adult age group make understanding the effect positive mental health that has on help-seeking intentions of African American emerging adult students important. In fact, this study indicates higher levels of positive mental health seek help from people who would universally be considered closer or in one's inner circle. However, future research should consider whether the effect of on and off campus environment (i.e., diverse ethnic and racial makeup of students, faculty, staff, and surrounding community) makes a difference in whom African American students seek help from.

It is possible that African American emerging adult students who participated in this study are on campuses that cultivate strong social networks among friends and family, which may increase the ability to have a more positive mental health status affecting their decision to seek help from certain types of people. Although the model uses the flourishing scale, a widely utilized and validated survey instrument to assess positive mental health, there is a lack of definitive measures of factors that impact mental health, such as environment and family history of depression included in study analyses of help-seeking behavior of African American emerging adult students.

Implications and Limitations

There are several strengths and limitations with the measures of this study. First, African American students self-reported being diagnosed with depression by a health professional. Though students reported their health professional depression diagnosis, some students may have opted not to share their mental health status in the survey due to fear of stigma or use of medical disclosure being included in student academic records. This may have affected the sample size of the students analyzed and the number of students seeking a certain type of help. While the size of the sample may have been affected, the study was still able to collect a sample of African American depressed students. These results from this sample will shed more light on the growing problem of mental health in the African American community. More importantly, this research will build awareness of ways to seek help.

Our results may have implications for mental health service designs that aim to increase access and improve health outcomes among students of marginalized communities who deal with depression on college campuses by encouraging developing strong peer support systems. Only providing structural support to a system where campus counselors who may not have experience with the lived experience of an African American student dealing with depression on college

campuses as the universal solution to access to care may be less effective in meeting their needs if they are more comfortable seeking help from their peers. Perhaps, developing programs where peer support groups is a model or increasing access to diverse mental health providers not affiliated with the campus could be ways to provide solutions to help-seeking intention needs of the African American emerging adult student who is dealing with depression. Future research should use qualitative methodology to better understand the anecdotal reasons as to why participants selected the particular help-seeking intention group. Secondly, although we know that access to mental health providers who share similar backgrounds of a person dealing with a mental illness is a strong predictor for seeking care among African Americans, our results show that having a high positive mental health is just as valuable when seeking specific types of help. Lastly, conducting a comparison study of African American help-seeking intentions with a mediator of positive mental health on historically black colleges and universities (HBCU) versus predominately white institutions (PWI) will provide a richer understanding of the impact of culture and environment. Our findings offer insight and information for college campuses to consider when designing their mental health plans and funding of initiatives to improve the lives of students on campus and beyond graduation.

Availability of Data and Material Healthy Minds Study 2015–2016 dataset.

Authors' Contributions Not applicable.

Funding Information Not applicable.

Compliance with Ethical Standards

Ethics Approval The Penn State College of Medicine Human Subjects Protection Office determined that the proposed activity of this study did not require formal IRB review because the research met the criteria for exempt research according to the institutional policies and provisions of applicable federal regulations.

Conflicts of Interest The authors declare that they have no conflict of interest. The opinions and information in this article are those of the authors and do not represent the views and/or policies of the U.S. Food and Drug Administration.

Code Availability R Studio software Version 3.5.

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