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Mental health service utilization among African immigrants in the United States

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Abstract

This study utilized Andersen's model of health behavior to explore factors associated with mental health service utilization. We also examine rates for mental health service use, treatment preferences, and barriers to care. Data were collected utilizing web-based surveys. The sample consisted of first and second-generation African immigrants who had struggled with emotional or behavioral problems in the past 12 months ($N = 323$). Hierarchical logistic regression analyses were conducted to examine predictors of mental health service utilization. The majority of participants (79.5%) met criteria for probable major depression, and 63% sought mental health services. Findings showed that mental health service utilization was more significantly predicted by enabling and need factors. Age (odds ratio [OR] = 1.03), religiosity (OR = 1.11), acculturative stress (OR = 1.68), neighborhood risk (OR = 0.54), and work-productivity loss (OR = 2.93) were associated with increased likelihood of mental health service use ($p < 0.05$). Most common barriers to service use were hopes of self-healing (56.3%) followed by financial barriers (46.2%). Findings highlight the need for public health initiatives to increase mental health literacy and financial accessibility to mental health services in response to the high mental health need and identified barriers to care in this population.

KEYWORDS

Andersen's model, African immigrants, depression, mental health, service utilization

1 | INTRODUCTION

In 2018, about 2 million sub-Saharan African immigrants lived in the United States, a 52% increase since 2010 making them one of the fastest-growing immigrant groups in the United States (Echeverria-Estrada & Batalova, 2019). Studies suggest that the intersections of race, immigration status, and place of origin produce compounded discrimination and subsequently greater socioeconomic and health disadvantage for black African immigrants compared with other immigrant groups in the United States (Batalova et al., 2016; Thomas, 2014). Immigration-related stress alongside being a minority has been shown to exacerbate or facilitate long-term mental health problems among immigrant groups (Derr, 2016; Escamilla & Saasa, 2020; Keyes et al., 2012; Orjiako & So, 2014). Research studies suggest lower rates of access to care and mental health service use among immigrant populations leading to unattended mental health conditions (Bridges et al., 2012; Derr, 2016; Keyes et al., 2012; Siegel et al., 2001). However, psychological health service utilization specific to African immigrants remains understudied with the few studies examining this population, largely focused on physical health, pointing to barriers regarding healthcare access (Adekeye et al., 2018; Ayele et al., 2020; Chaumba, 2011; Siegel et al., 2001).

Empirical evidence indicates that several factors such as age, immigration status, religiosity, gender, education, and safety concerns can impact service utilization and help-seeking among African immigrants (Adekeye et al., 2014; Akinsulure-Smith et al., 2013; Chaumba, 2011; McCann et al., 2016; Orjiako & So, 2014). While sociocultural characteristics can influence underutilization, structural factors including social exclusion and limited opportunities for integration cannot be ignored in addressing mental health service use among African immigrants (Saasa et al., 2021; Viruell-Fuentes, 2011). The sparse studies specifically addressing mental health service utilization among African immigrants in the United States have several limitations. These include narrow examination of factors specific to the immigrant experience, use of single-country samples, and limited measures of mental health needs (Ayele et al., 2020; Chaumba, 2011). Therefore, this study seeks to expand the current knowledge base on mental health service utilization among first- and second-generation African immigrants. Utilizing the Andersen Health Behavior model, we examine individual and sociocultural factors that either facilitate or impede service use, considering immigrant-specific factors such as acculturative stress and social exclusion. We also examine mental health needs, service utilization rates, and treatment preferences among this population.

1.1 | Factors associated with service utilization and theoretical framework

Several scholars indicate that African immigrants acknowledge the availability and efficiency of mental health services and treatments in the United States compared with their countries of origin, but note the difficulty in interacting with the healthcare system (Adekeye et al., 2014; McCann et al., 2016). Andersen's Behavioral Model of Health provides a useful and widely used framework to ascertain individual and contextual factors that can influence decisions to seek or not seek support for mental health concerns. These factors are categorized as predisposing, enabling, and need factors that impact health service use (Andersen, 1968; Babitsch et al., 2012; Choi et al., 2020). The model suggests that "people's use of health services is a function of their predisposition to use services, factors which enable or impede use, and their need for care" (Andersen, 1995, p. 1). Andersen's model utility lies in the fact that it not only accounts for medical care and access to health insurance as a function of service utilization, but rather individual factors, and personal and community support systems that can play a pivotal role in health service use. The novelty of this model lies in looking at the cumulative influence of all possible factors that can enhance the utilization of services. For instance, enabling factors alone such as health insurance may or may not motivate someone to seek services if there is no identified need (perceived or evaluated). On the contrary, even though predisposing factors and need factors motivate an individual to seek help, lack of health insurance, financial strain, or knowledge about resources through limited education may demotivate an individual from seeking help (Aday et al., 2004; Li et al., 2016).

Predisposing factors in the Andersen model are generally the personal or sociodemographic characteristics such as sex, age, race, relationship status, and immigrant status (Andersen, 1968, 1995) that impact an individual's inclination to utilize services. These predisposing factors can inform one's beliefs or perception of whether or not health service utilization may be useful. Research suggests that African male immigrants do not utilize mental health services as frequently as African female immigrants due to the public stigma of mental illness and the associated fear of appearing weak (McCann et al., 2016; Olawo, 2019). Marital status has also been found to be a strong predictor of mental health service use among African immigrants though the specific role of relational status on service use was not determined (Ayele et al., 2020). Additionally, qualitative studies have established that differences among young and older African immigrants could play a role in accessing mental health services (McCann et al., 2018; McCann et al., 2016).

Enabling factors include individual, family, or community resources that can enhance access to mental health services. Enabling factors can include education, income, acculturation or stress of integration, social exclusion, religious involvement, and neighborhood characteristics among others (Andersen, 1968, 1995). These factors could serve as catalysts or inhibitors to service utilization through influence on awareness of resources and perceptions about service use. Evidence suggests that religion, in the form of consultation with religious leaders and support from religious/spiritual practices, is an important avenue of informal mental health care across various immigrant groups, including African immigrants (Agyekum & Newbold, 2016; Derr, 2016). Positive experiences with religious leaders can encourage African immigrants to seek support from them or to referred services. Furthermore, different rates of acculturative stress may also place additional challenges on immigrant families, including responding to mental health and substance use problems (Adekeye et al., 2014; Covington-Ward et al., 2018; McCann et al., 2016). Research also indicates that social exclusion, particularly cultural, structural, and economic dimensions of exclusion are significant predictors of mental health distress, isolation, and societal mistrust among African immigrants (Saasa et al., 2021). These factors can have implications for help-seeking. For example, economic barriers such as lack of health insurance, cost of services, and education attainment have been cited to influence service use among this population (Adekeye et al., 2018; Covington-Ward et al., 2018; McCann et al., 2016). Additional help-seeking barriers identified among this group include the stigma of mental illness, lack of mental health literacy, and lack of culturally responsive formal resources (Adekeye et al., 2014; Boise et al., 2013; Boukpessi et al., 2020; McCann et al., 2016).

According to Andersen's Health behavior model, need factors constitute immediate motivators that can serve as tipping points for health service utilization. This includes self-perceived need of healthcare services or actual need through a physicians' evaluation of an individual's health status (Andersen, 1968, 1995). Need factors identified within African immigrant communities include depression, substance abuse, chronic health conditions, and loss of motivation, and productivity in the workplace (Adekeye et al., 2014, 2018; Chaumba, 2011; McCann et al., 2016; Venters et al., 2011). Studies indicate that loneliness and social isolation contribute to African immigrant's symptoms of depression and substance use (Boise et al., 2013; Escamilla & Saasa, 2020; McCann et al., 2016). However, African immigrants' decisions to use or not use mental health services largely depend on the severity of symptoms (Boukpessi et al., 2020; Venters et al., 2011). Although great strides have been made in understanding mental health service use for various immigrant populations such as Hispanic immigrants (Bridges et al., 2012; Keyes et al., 2012) and Asian immigrants (Clough et al., 2013; Nguyen & Lee, 2012), mental health service utilization among African immigrants in the United States has been severely understudied. The majority of studies examined by the authors are largely qualitative and from international contexts. The invisibility of this population in academic discourse is concerning, therefore this study seeks to fulfill this knowledge gap.

1.2 | Current study

Given the rate of growth of African immigrant populations in the United States, and their increased vulnerabilities to negative health outcomes due to race and immigrant status, there is a need for a better understanding of mental health needs and knowledge of barriers and facilitators of mental health service use in this population. Utilizing Andersen's

model of health behavior, the purpose of this study was fourfold: (1) explore mental health needs; (2) assess frequency and characteristics of mental health service utilization; (3) assess perceived barriers to help-seeking and treatment preferences; and (4) examine factors that influence mental health service utilization among first- and second-generation African immigrants. The research questions specifically explored in this study included the following: (RQ1) What is the prevalence of mental health distress among African immigrants? (RQ2) What are the rates of mental health service utilization among African immigrants experiencing emotional and behavioral problems? (RQ3) What types of mental health services are sought after? (RQ4) What are the barriers to service use and preferred treatment types? (RQ5) What factors are associated with whether mental health services are utilized? We hypothesized a high mental health need (H1) with low service utilization (H2), and that predisposing, enabling, and need factors will be significantly associated with mental health service use (H3). Findings from this study could make a distinctive contribution to the much-needed empirical evidence on African immigrants' usage of mental health services and the range of factors influencing help-seeking.

2 | METHODS

2.1 | Participants and procedures

Data were derived from the African Immigrant Experiences project, a web-based survey administered in the English language and conducted between December 2019 and January 2020 through Qualtrics software (n = 600). Respondents were recruited using social media platforms, websites, and email invitations with the following eligibility criteria: age 18+; current residence in the United States; first- or second-generation immigrant from African countries. Following recommendations on online data collection from the Association for Public Opinion Research (Jones et al., 2010), data quality checks, multiple submission guards, survey length minimums, and careless respondent identification strategies were incorporated in the survey. Ethical approval, consent procedures, and study oversight were obtained from Brigham Young University's Institutional Review Board.

Sample distribution across the United States included 18% Northeast, 18% Midwest, 52% South, and 12% West. Respondents originated from North Africa (9%), East Africa (24%), Central (2%), West Africa (60%), and Southern Africa (9%). The analytic sample was restricted to participants who had struggled with emotional or behavioral problems in the past 12 months (as a basis for mental health service need), resulting in a final sample size of 323. This is slightly more than half our full sample (54%) and indicates an annual incidence rate higher than found among the general US adult (20.6%) population for mental distress (National Institute of Mental Health [NIMH], 2021). About 44% of the sample identified as first-generation immigrants and 56% as second-generation. Of the first-generation immigrants, 66% came into the United States on temporary visas (e.g., student, visitor, work), 28% as permanent residents, and 6% as refugees/Asylum seekers. Sociodemographic characteristics of the sample are shown in Table 1. The sample was predominantly female (73%) and black (83%). Participant ages ranged between 18 and 82 (mean = 28.2; SD = 10.7). Modal response options for education attainment and individual annual income were high school or less and less than $15,000, respectively.

2.2 | Study measures

2.2.1 | Mental health service utilization

Our dependent variable in the multivariate analyses, mental health service utilization, was measured using a dichotomous measure coded as 0 (*no*) and 1 (*yes*). Participants responded to the question, “During the past 12 months, did you seek health care services for feelings such as anxiety, nervousness, depression, insomnia or any other emotional or behavioral problems?”

TABLE 1 Sample characteristics ($n = 323$)

Variable	Total (*n*)	Percent (%)	Mean ($\bar{X}$)	*SD*	Range
Sex					
Male	86	26.6			
Female	237	73.4			
Age			28.20	10.68	18–82
Race					
Black	267	82.7			
Other	56	17.3			
Marital status					
Not married	247	76.5			
Married	76	23.5			
Immigrant generation					
First generation	142	44.2			
Second generation	180	55.8			
Acculturative stress			2.44	0.66	1–4
Religiosity			7.26	2.85	1–10
Education attainment					
High school or less	121	37.5			
Technical or vocational training	53	16.4			
Bachelor's degree	96	29.7			
Master's degree or more	53	16.4			
Social exclusion			1.74	0.63	0–4
Health insurance					
No	67	20.7			
Yes	256	79.3			
Neighborhood risk					
No frequent disturbances	92	28.5			
Sometimes	100	31			
Frequent disturbances	130	40.2			
Individual income					
$0	26	8.0			
$15,000 or less	79	24.5			
$15,001–$35,000	72	22.3			
$35,001–$55,000	45	13.9			
$55,001–$75,000	53	16.4			
$75,001 and above	48	14.9			

(Continues)

TABLE 1 (Continued)

Variable	Total (*n*)	Percent (%)	Mean ($\bar{X}$)	*SD*	Range
Chronic medical condition					
No	217	67.2			
Yes	106	32.8			
Depression symptoms			2.40	0.69	1–4
Not depressed	65	20.5			
Probable depression	252	79.5			
Substance use			2.10	0.93	1–4
Work-productivity loss					
No	172	53.3			
Yes	150	46.6			
Service utilization					
No	119	36.8			
Yes	204	63.2			

Note: Percentages may not add up to 100% due to missing data on some variables.

For descriptive analyses of mental health services utilized and barriers to service use, we examined several questions. Research on access to health care suggests that health service use entails a series of steps with multiple decision points between seeking care and actually obtaining it, such as the ability to reach the health service (mobility, social support, transport) and ability to pay and use the service. Thus seeking care alone does not mean that the desired need and reach for a particular health service was fulfilled (Levesque et al., 2013). Following the endorsement of seeking services for mental health needs, participants answered the following questions with multiple response categories: (1) What type of care did you seek? (2) What type of care or treatment did you receive? (3) If you or someone you cared about needed help or support for mental health, emotional or behavioral problems, which services would you most prefer? (4) Participants that did not seek health services were asked the question, "What are some of your reasons for not seeking health care services?"

2.3 | Predisposing factors

Age was continuous and measured in years. Sex (0 = *male*, 1 = *female*), race (0 = *Black*, 1 = *non-Black*), marital status (0 = *not married*, 1 = *married*), and immigrant generation (0 = *first-generation*, 1 = *second-generation*) were dichotomous measures. Participants were considered first-generation if they were African-born and immigrated to the United States, and second-generation if they were US-born with African-born parents.

2.4 | Enabling factors

2.4.1 | Acculturative stress

Acculturative stress was measured using the 24-item Social, Attitudinal, Familial, And Environmental (SAFE) Acculturation Stress Scale (Mena et al., 1987). Participants rated items such as, "It bothers me when people

pressure me to assimilate," and "Many people have stereotypes about my culture or ethnic group and treat me as if they are true," on a scale from 1 (*not at all stressful*) to 4 (*extremely stressful*). Internal consistency for these items was good ($\alpha = 0.93$).

2.4.2 | Religiosity

Participants rated how important religion was to their daily lives on a scale from 1 (*not important*) to 10 (*extremely important*).

2.4.3 | Education attainment

Education attainment was measured using a categorical variable with the following response options: *high school or less* = 0, *technical or vocational training* = 1, *bachelors' degree* = 2, master's *degree or more* = 3.

2.4.4 | Social exclusion

The social exclusion measure was derived from the 15-item Social Exclusion Scale that examines four types of exclusion including economic, structural, social, and cultural exclusion (Vrooman & Hoff, 2013). We adopted the 13-item modified version of this scale utilized by Saasa and Allen (2021) among African immigrants. On a scale from 0 (*always*) to 4 (*never*), participants rated items such as, "I have enough money to meet unexpected expenses," and "There are people whom I can have a good conversation with." High scores indicated higher levels of social exclusion. The reliability coefficient for these items in our sample was good ($\alpha = 0.78$).

2.4.5 | Health insurance

Health insurance was indicated by participants answering *yes* (1) or *no* (0) to the question, "Do you currently have health insurance?"

2.4.6 | Neighborhood risk

This was measured by one question asking participants to report the frequency of disturbances (such as crime, vandalism, noise, etc.) in their neighborhood with the following response categories: "no frequent disturbances," "sometimes," and "frequent disturbances."

2.4.7 | Individual income

Income was grouped into six categories: "0 = none," "1 = $15,000 or less," "2 = $15,001–$35,000," "3 = $35,001–$55,000," "4 = $55,001–$75,000," and "5 = $75,001 and above."

2.5 | Need factors

2.5.1 | Chronic medical condition

This measure was dichotomously coded (0 = *no*, 1 = *yes*) to the question, "Do you have a disability or chronic medical condition?"

2.5.2 | Depression symptoms

Depression symptoms were measured using the 25-item Hopkins Symptom Checklist-25 scale with primary symptom manifestations of depression and anxiety. The HSCL-25 has demonstrated validity for use in various cross-cultural settings including African populations (Kaaya et al., 2002; Lhewa et al., 2007; Mahfoud et al., 2013). Participants reported whether in the past 2 weeks, they had experienced symptoms such as "feeling scared for no reason," or "feeling hopeless about the future." Items are scored on an ordered categorical scale from 1 (*Not at all*) to 4 (*Extremely*). The mean of the total 25 items was obtained for analyses, and further dichotomized at the cut-off point such as 0 = *no depression*, 1 = *probable depression*. The recommended cut-off point for symptomatic cases among adult men and women is 1.75 for probable major depression (Winokur et al., 1984). Reliability coefficients for this scale were good in our sample ($\alpha = 0.95$).

2.5.3 | Substance use

The two-item substance use subscale derived from the Brief Cope scale was used for this measure (Carver, 1997). On a scale from 0 (*not at all*) to 3 (*a lot*), participants rated their use of substances in dealing with stressors such as, "I have been using alcohol or other drugs to make myself feel better." The mean of the two items was obtained for analyses. Reliability coefficients for this scale were acceptable ($\alpha = 0.75$).

2.5.4 | Work-productivity loss

Work-productivity loss was derived from a dichotomous measure (0 = *no*, 1 = *yes*) asking participants the question, "Was your job performance adversely affected by mental health problems during the past 12 months?"

2.6 | Data analysis

First, descriptive statistics were examined. We screened for missing data, normality violations, heteroscedasticity, and multicollinearity. All diagnostics were within the normal range. Missing data were extremely few (1.2%) and treated with listwise deletion under the assumption of missing at random. Second, bivariate analyses were conducted to examine the relationships between all study variables. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Third, hierarchical regression analyses were conducted to examine the relationship between independent variables and the odds ratio of health service use. Blocks were ordered such that predisposing factors were entered first (i.e., age, sex, race, marital status, and immigrant generation), followed by enabling factors (i.e., acculturative stress, religiosity, education, social exclusion, health insurance, neighborhood risk, and income) and need factors (chronic medical condition, depression symptoms, substance use, and work-productivity loss). Frequencies were examined for the descriptive component of our study to examine patterns of mental health service utilization.

3 | RESULTS

3.1 | Sample characteristics and bivariate associations

Table 1 shows results from descriptive analyses. The majority of participants were not married (76.5%), had health insurance (79.3%), and had no chronic medical conditions (67.2%). About 63% of participants had used mental health services in the past 12 months. The mean HSCL-25 score (2.4, *SD* = 0.69) was above the recommended cut-off of 1.75 with the majority of participants (79.5%) endorsing probable major depression. A χ^2 test showed a significant difference in mental health symptoms between immigrant generations. Specifically, 83.7% of second-generation immigrants met criteria for probable clinical depression compared with 73.7% of first-generation immigrants ($\chi^2(1, N = 316) = 4.82$; $p = 0.028$). About 47% of participants indicated that their work productivity had been negatively impacted by mental health problems.

Results for zero-order correlations among all study variables can be seen in Table 2. Among enabling factors, acculturative stress, religiosity, and neighborhood risk were positively associated with service utilization at the bivariate level. An additional χ^2 test ($\chi^2(2, N = 322) = 7.30$; $p = 0.026$) revealed that compared with those from safer neighborhoods, participants from high-risk neighborhoods were more likely to experience mental health distress that they sought health services for. Having a chronic medical condition, depression symptoms, substance use, and work-productivity loss were also positively associated with service use among need factors. We found no significant bivariate associations between predisposing factors and service utilization.

3.2 | Mental health service utilization

Figures 1–4 provide descriptive statistics for mental health service use to answer our third and fourth research questions. Figure 1 shows that the most frequently sought mental health services included services available through a psychiatrist (19.6%), general practitioner/doctor's office (16.7%), hospital therapist (16.2%), and pharmacist support (15.7%). As shown in Figure 2, the type of mental health service that was most commonly received was counseling advice from clergy (37%), followed by prescribed medication treatment (21.8%), then psychotherapy from trained mental health specialists (21.3%). An analysis of variance showed that age had marginally significant effects on services received, $F(38, 163) = 1.48$; $p = 0.051$. Additionally, we found significant differences between immigrant generation and services received, $\chi^2(32, N = 202) = 9.97$; $p = 0.04$. Further examination with a χ^2 test of association showed significant differences between services sought and services received, $\chi^2(32, N = 202) = 185.14$; $p < 0.001$. The majority of participants who sought (or attempted to obtain) services from health professionals ended up receiving mental health advice from the clergy. We found no other significant associations between mental health service rates and demographic factors. Figure 3 shows that among those that did not seek mental health services, the most common reasons for lack of service use was hopes of fixing the mental health problem on their own (56.3%), followed by financial barriers to care (27.7%). Figure 4 displays preferred mental health services if participants or their family members ever needed mental health help. Individual therapy was most preferred (44%) followed by medication treatment (17%).

3.3 | Logistic regression analyses

Results for the hierarchical logistic regression analyses can be seen in Table 3. We found no significant effects in the first logistic regression model (pseudo $R^2 = 0.02$), which included only predisposing factors. Model 2 (pseudo $R^2 = 0.14$) included both predisposing and enabling factors, and showed significant results for age, religiosity, acculturative stress, and neighborhood risk. Older age (odds ratio [OR] = 1.03; $p < 0.05$), increased religiosity

TABLE 2 Zero-order correlations of all study variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Service utilization	1																
2. Age	0.09	1															
3. Sex	−0.01	−0.07	1														
4. Race	0.01	−0.15**	0.09	1													
5. Marital status	0.02	0.27**	0.15**	−0.17***	1												
6. Immigrant generation	0.03	−0.08	0.02	0.15***	−0.10	1											
7. Acculturative stress	0.16**	−0.02	−0.15**	−0.05	0.15**	−0.03	1										
8. Religiosity	0.13*	0.14*	0.09	−0.04	0.13*	−0.08	0.11	1									
9. Education	−0.01	0.18**	−0.13*	−0.14*	0.19**	−0.15**	0.09	0.06	1								
10. Social exclusion	−0.07	0.04	0.21**	0.16**	−0.13*	0.06	0.01	−0.14*	−0.18**	1							
11. Health insurance	0.04	−0.03	0.03	0.03	0.10	0.06	−0.06	−0.06	0.21**	−0.16*	1						
12. Neighborhood risk	0.11*	−0.05	−0.19**	−0.03	0.05	0.04	0.24**	0.03	−0.04	0.03	−0.10	1					
13. Income	0.09	0.09	−0.21**	−0.07	0.24**	−0.01	0.11	0.03	0.37**	−0.24**	0.16**	0.03	1				
14. Chronic medical condition	0.18**	0.16**	−0.09	0.02	0.06	0.08	0.08	−0.01	0.04	−0.03	0.05	0.21**	0.06	1			
15. Depression symptoms	0.14**	−0.05	−0.03	−0.02	0.06	0.11	0.61**	−0.01	0.04	0.05	−0.04	0.30**	0.01	0.21**	1		
16. Substance use	0.16**	−0.08	−0.22**	−0.01	0.08	0.09	0.45**	−0.03	0.13*	−0.06	0.06	0.23**	0.15**	0.12*	0.44**	1	
17. Work-productivity loss	0.28**	0.04	−0.11*	−0.07	0.01	−0.08	0.23**	0.06	0.12*	−0.07	0.01	0.22**	0.10	0.27**	0.29**	0.27**	1

*$p < 0.05$.

**$p < 0.01$.

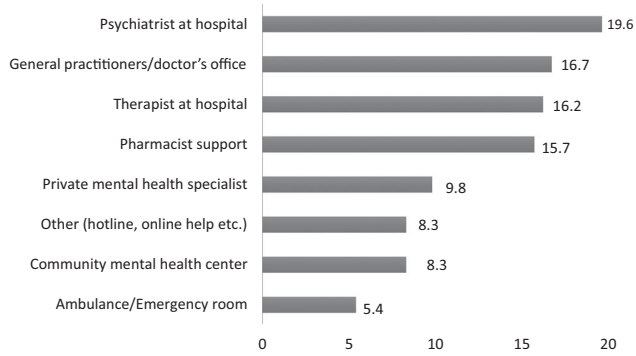

FIGURE 1 Mental health services sought in percentages (n = 204)

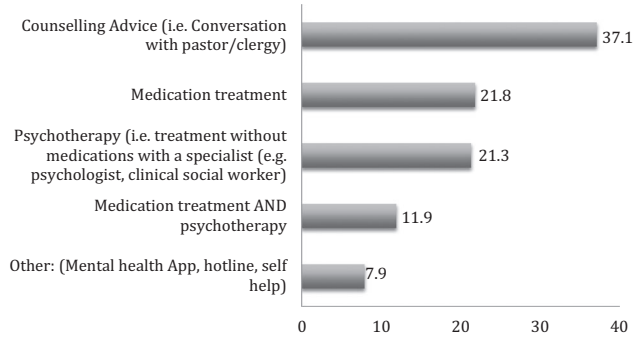

FIGURE 2 Mental health treatment received in percentages (n = 202)

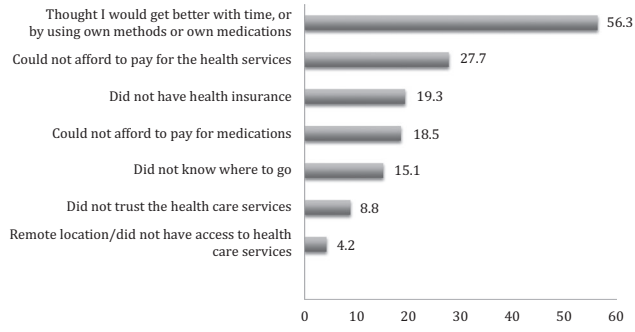

FIGURE 3 Reasons for not seeking healthcare services in percentages (n = 119)

(OR = 1.11; $p < 0.05$), and increased acculturative stress (OR = 1.68; $p < 0.01$) were associated with higher odds of mental health service utilization. Additionally, participants with no frequent disturbances in their neighborhoods had lesser odds of service use compared with those from riskier neighborhoods (OR = 0.54; $p < 0.05$). When need factors were added in Model 3 (pseudo R^2 = 0.23), results showed that only work-productivity loss had significant effects among need factors. Specifically, participants whose work productivity was adversely affected by mental

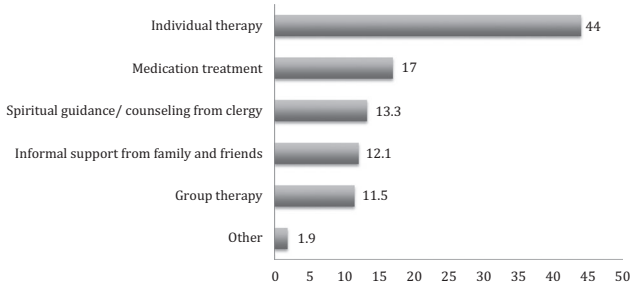

FIGURE 4 Most preferred supports for mental health needs in percentages ($n = 323$)

health problems were approximately three times more likely to use mental health services (OR = 2.93; $p < 0.01$) compared with those whose work productivity had not been affected. Age and religiosity remained significant among the predisposing and enabling factors in Model 3.

4 | DISCUSSION

The present study makes important and much-needed contributions in advancing research pertaining to mental health service utilization among African immigrants. With the majority of our participants (79.5%) endorsing probable cases of clinically significant major depression symptoms, our findings support our first hypothesis and suggest that there is a high need for mental health services in the African immigrant general population. This may be reflective of the numerous contextual stressors experienced by Black and immigrant populations in the United States such as discrimination, employment issues, financial strain, and acculturative stress among others.

Contrary to our second hypothesis, rates for mental health service utilization were higher than found in other immigrant populations (Bridges et al., 2012; Nguyen & Lee, 2012). Given that our sample was predominantly female, this finding possibly corroborates studies that indicate that women use health services at higher rates than men (Bridges et al., 2012; Olawo, 2019). Although we found no significant gender differences in service use in our study, findings may be different with larger, and more representative samples. However, it is also important to consider the facilitative role of English language proficiency in African immigrant's increased service use. Studies suggest that limited English proficiency reduces the likelihood of mental health service use among various immigrant groups in the United States (Bridges et al., 2012; Spencer et al., 2010). An issue not typical among African immigrants who are more likely to be proficient English speakers compared with other immigrant groups (Echeverria-Estrada & Batalova, 2019). The top mental health services that participants pursued or requested for were those from health professionals such as psychiatrists, doctors, and hospital therapists. However, the most common type of services the majority of participants ended up receiving was consultation with religious leaders. This discrepancy in desired health services and those received may be due to barriers identified by participants in our sample.

Similar to other studies (Adekeye et al., 2018; Bridges et al., 2012; Clough et al., 2013), we found that personal beliefs (i.e. self-healing) and economic constraints were the biggest barriers to service utilization. About half of participants (56%) indicated that they did not seek help for their mental health distress because they hoped to overcome it on their own. This need to handle psychological distress independently may be due to culturally specific stigma and attitudes associated with mental illness that has been found among African immigrant communities (Boise et al., 2013; Boukpessi et al., 2020; McCann et al., 2018). Research also indicates that stigma is associated with increased psychological distress (Chen et al., 2016). Future studies should be conducted to explore

TABLE 3 Hierarchical regression for mental health service utilization ($n = 319$)

Variables	Model 1			Model 2			Model 3		
	OR	*SE*	95% CI	OR	*SE*	95% CI	OR	*SE*	95% CI
Predisposing factors									
Sex (female)	0.90	0.27	0.53–1.53	1.04	0.31	0.57–1.92	1.38	0.34	0.71–2.67
Age	1.02	0.12	0.10–1.04	1.03*	0.01	1.00–1.06	1.03*	0.01	1.01–1.06
Race (Black)	1.03	0.32	0.55–1.93	1.18	0.35	0.59–2.34	1.32	0.38	0.63–2.76
Marital status (not married)	1.01	0.30	0.57–1.80	1.51	0.33	0.80–2.88	1.31	0.35	0.66–2.59
Immigrant generation (1st gen.)	0.83	0.24	0.53–1.34	0.84	0.26	0.50–1.39	0.80	0.28	0.46–1.40
Enabling factors									
Acculturative stress				1.68**	0.21	1.12–2.51	1.51	0.25	0.92–2.47
Religiosity				1.11*	0.05	1.01–1.21	1.12*	0.05	1.02–1.23
Education attainment									
High school or less				-	-	-	-	-	-
Technical or vocational training				0.85	0.38	0.40–1.80	0.78	0.41	0.35–1.75
Bachelor's degree				0.63	0.34	0.32–1.23	0.52	0.37	0.25–1.08
Master's degree or more				0.72	0.40	0.33–1.58	0.65	0.43	0.28–1.52
Social exclusion				0.66	0.23	0.43–1.03	0.68	0.25	0.42–1.09
Health insurance (no)				0.67	0.32	0.36–1.27	0.70	0.34	0.36–1.38
Neighborhood risk									
No frequent disturbances				0.54*	0.31	0.29–0.99	0.67	0.35	0.34–1.32
Sometimes				1.55	0.32	0.83–2.89	1.36	0.34	0.70–2.63
Frequent disturbances				-	-	-	-	-	-
Individual income				1.12	0.09	0.94–1.34	1.12	0.10	0.93–1.35
Need factors									
Chronic medical condition (yes)							1.67	0.32	0.89–3.10
Depressed (yes)							0.62	0.37	0.30–1.27
Substance use							1.18	0.17	0.84–1.66
Work-productivity loss (yes)							2.93**	0.30	1.65–5.23
Model pseudo R^2	0.02			0.14			0.23		
χ^2	3.49			33.49**			57.92**		

Abbreviations: CI, confidence interval; OR, odds ratio.

*$p > 0.05$; **$p < 0.01$.

the relationship between personal/cultural beliefs, stigma, and African immigrant mental health outcomes. Barriers due to cost (46%) and lack of insurance (19%) were also identified as reasons preventing participants from accessing mental health services. This points to a need for economic interventions in ameliorating barriers to help-seeking. We also examined preferred supports for mental health and found that individual therapy was the most preferred form of support among African immigrants. This is an important finding warranting further research and

practice exploration. It is possible that receiving professional help privately shields from the stigma attached to seeking mental health services within African immigrant communities.

In examining our third hypothesis, our study identified a number of predisposing, enabling, and need factors influencing mental health help-seeking: age, religiosity, acculturative stress, neighborhood risk, and work-productivity loss. Contrary to findings of others (Nguyen & Lee, 2012), we found that among African immigrants, the likelihood of mental health service use increased with age. Differential help-seeking beliefs and probability of cumulative health needs over time could explain this positive association between increased age and mental health service utilization (Adekeye et al., 2014; McCann et al., 2016). Further research is needed to delineate social experiences across the life course and their differential impact on service use among this population. Among need factors, increased religiosity resulted in higher odds of service utilization. Prior research reveals that religious leaders are an important source for informal mental health support among African immigrants (Agyekum & Newbold, 2016), similar to Hispanic immigrant populations (Bridges et al., 2012). Additionally, studies suggest that acculturative stress contributes to mental health needs (Orjiako & So, 2013; Silva et al., 2017), which could explain the greater odds of service use for participants experiencing increased acculturative stress. The potential mediation effect of mental health distress on the relationship between acculturative stress and mental health service use should be explored. Similarly, we found a reduced need for service use for immigrants in safer neighborhoods compared with those in unsafe neighborhoods. This aligns with studies that suggest that environmental stressors adversely affect mental health, particularly for immigrants of color that have an increased likelihood of living in poverty and high-crime areas (Adekeye et al., 2014; Bridges et al., 2012). Among need factors, work-productivity loss was the strongest and only determinant of mental health service use in this study. Negative health impacts on employment as an income source and the potential threats to livelihoods could facilitate service need recognition. This supports the suggestion that health service use among African immigrants is largely driven by symptom severity and functional limitations (Boukpessi et al., 2020).

Taken together, our findings contribute to an improved understanding of mental health service need and utilization, type of mental health services used, and barriers to service use among an underserved and understudied immigrant population in the United States. Additionally, results provide preliminary findings of self-reported preferred mental health services among this group. Consistent with previous studies, findings suggest that considerations of predisposing, enabling, and need factors in the immigrant social context may be useful in identifying barriers to mental health service utilization and efforts to promote service use (Ayele et al., 2020; Keyes et al., 2012).

4.1 | Strengths and limitations

The primary strength of this study is its expansion of our understanding of mental health service utilization using quantitative analyses with a much larger sample than previous studies among this population that are few and largely qualitative. Findings underscore the relatively significant role of enabling and need factors in mental health service utilization among African immigrants in the United States.

Results from this study should be interpreted within the bounds of its limitations. First, the self-reported measures utilized in health service utilization do not reflect the quality or intensity of treatment services. This could result in underreporting or overreporting of mental health service use. More detailed and objective information on service use would improve future studies. Second, the use of cross-sectional data entails that causal inference cannot be made. Third, single-item measures of some of our key variables may be an oversimplification of otherwise complex constructs of which future studies could further explore with multidimensional measures to expand our understanding. Fourth, the data collection strategies exclude certain populations such as those not technologically inclined and immigrants not fluent in the English language. Additionally, our sample had a low response rate for male respondents compared with females. This introduces bias in the sample and limits the

generalizability of our findings. Future research may find differences in health service use by examining larger samples allowing for meaningful gender comparisons and other need-based subgroups such as those with varied psychiatric disorders.

5 | IMPLICATIONS

This study has important practice, policy, and research implications. Findings highlight a great need for mental health services among African immigrants, with personal beliefs and economic factors as the leading impediments to service use. To improve utilization of services, there is a need for practitioners to be attuned to the needs of this population and better assess barriers to service use that are independent of need factors. Particularly, practitioners can facilitate mental wellness literacy in African immigrant communities to reduce possible stigma or attitudes toward mental health and related services to promote healthcare utilization. Given that religious leaders act as important members of the helping community for this population, it would be beneficial for practitioners and policy advocates to partner and work closely with these community leaders, provide adequate training in the assessment of mental health needs, and help formulate a referral system to link those in need of specialized services to skilled mental health professionals. The health system should be considered and further explored as an important avenue for culturally competent mental health service delivery (Nguyen & Lee, 2012), given the high rates of health profession contact for mental health needs found among our sample. Additionally, factors that contribute to the high rates of emotional distress among African immigrants need to be assessed alongside advocating for policies that challenge unjust mechanisms facilitating this higher burden of illness. Policy advocates should also campaign for policies that can subsidize the cost of healthcare services for those with a lower income level, including options for sliding scale fees, payment plans, and access to insurance coverage that can eliminate economic barriers to service utilization. Future studies need to investigate culturally salient constructs to develop a more comprehensive understanding of factors that influence mental health service needs and service utilization among this population.

6 | CONCLUSION

This study contributes to the limited research examining mental health service utilization among African immigrants in the United States. The primary purpose of this study was to examine mental health service utilization and factors that facilitate and hinder access to health care among first- and second-generation African immigrants that have experienced emotional distress. In the context of extant literature, the present study indicates that need factors, particularly adverse mental health impacts on job performance, were a major driver of mental health service utilization among African immigrants in the United States. Additionally, other factors such as age, religiosity, acculturative stress, and neighborhood risk also had a significant impact on healthcare utilization. Findings also indicate a discrepancy between desired services and those received, with individual beliefs and economic constraints being the most cited barriers to service use. Despite high rates of respondents seeking psychiatry services and other mental health specialist services, most received informal support from religious leaders. In working among African immigrants, incorporating religious leaders in promoting help-seeking behaviors and mental health service provision efforts should be considered. There is also a need for public health initiatives to increase mental health literacy and financial accessibility to mental health services alongside considerations of effective treatments that are culturally relevant.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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