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Barriers to School-Based Mental Health Resource Utilization Among Black Adolescent Males

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Abstract

Black adolescent males use available mental health services at a disproportionately lower rate compared to males of other racial groups. This study examines barriers to school-based mental health resource (SBMHR) use among Black adolescent males, as a means of addressing reduced usage of available mental health resources and to improve these resources to better support their mental health needs. Secondary data for 165 Black adolescent males were used from a mental health needs assessment of two high schools in southeast Michigan. Logistic regression was employed to examine the predictive power of psychosocial (self-reliance, stigma, trust, and negative previous experience) and access barriers (no transportation, lack of time, lack of insurance, and parental restrictions) on SBMHR use, as well as the relationship between depression and SBMHR use. No access barriers were found to be significantly associated with SBMHR use. However, self-reliance and stigma were statistically significant predictors of SBMHR use. Participants who identified self-reliance in addressing their mental health symptoms were 77% less likely to use available mental health resources in their school. However, participants who reported stigma as a barrier to using SBMHR were nearly four times more likely to use available mental health resources; this suggests potential protective factors in schools that can be built into mental health resources to support Black adolescent males' use of SBMHRs. This study serves as an early step in exploring how SBMHRs can better serve the needs of Black adolescent males. It also speaks to potential protective factors that schools provide for Black adolescent males who have stigmatized views of mental health and mental health services. Future studies would benefit from a nationally representative sample allowing for more generalizable results regarding barriers and facilitators to Black adolescent males' use of school-based mental health resources.

Keywords Black/African American · Male · Mental health · Depression · School Mental Health · Barriers · Help-seeking

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Introduction

While school-based mental health resources (SBMHR) continue to demonstrate benefits to improving youths' mental health, service utilization by Black adolescent males remains low. Research suggests that Black adolescent males disproportionately underutilize mental health resources and are more likely to suffer from untreated mental health challenges (Assari & Caldwell, 2017; Barksdale et al., 2010). Black adolescent males report more chronic experiences with depressive symptoms compared to their White counterparts, are more likely to report adverse childhood experiences (ACEs), and currently have the fastest growing rate of suicide among adolescents in the United States (Carlson & Grant, 2008; Lindsey et al., 2017, 2019). The Emergency Task Force on Black Youth Suicide and Mental Health,



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formed by the Congressional Black Caucus, reports that suicide attempts for Black adolescents have risen by nearly 75% since 1991, and injury from suicide attempts by Black adolescent males increased by 122% (Lindsey et al., 2019; The Congressional Black Caucus Emergency Taskforce on Black Youth Suicide and Mental Health, 2020). However, while Black adolescent males often report experiencing heightened depressive symptoms, their rates for formal diagnosis of Major Depressive Disorder (MDD) continue to lag. Despite the growing implementation of SBMRH in K-12 schools, understanding the barriers that impact Black adolescent males' utilization of services is still needed. The purpose of the current study is to identify psychosocial and access barriers significantly associated with SBMHR use among Black adolescent males. For the purposes of the study barriers are defined as reasons or obstacles that prevent individuals from seeking, obtaining, or completing mental health services and support (Planey et al., 2019).

Black Adolescent Males' Mental Health Service Use

Underutilization of mental health resources among Black adolescent males remain a significant public health disparity. Black adolescent males experiencing pervasive mental health challenges are more than 80% less likely to have ever received mental health services and are less likely than their non-Black peers to seek formal mental health support (Lindsey et al., 2006, 2017). When Black adolescent males do seek mental health support, there is a less than 35% treatment completion rate for Black adolescent males who choose to utilize mental health resources (Alegría et al., 2012; Caldwell et al., 2016) meaning that a majority of Black adolescent males that report using mental health services are withdrawing before completing the recommended sessions or treatment. These low rates speak to potential issues with the quality of mental health care Black adolescent males are receiving, as well as negative perceptions that Black adolescent males may hold of mental health services leading them to exit before completing services. This underutilization and premature withdraw from mental health resources may lead to negative short and long-term mental health outcomes for Black adolescent males. While studies examining the long-term effects of untreated mental health among Black adolescent males in particular remain limited, adolescents in general that have untreated mental health conditions are at an increased risk of experiencing long-term substance misuse issues, suicidal ideation, and are more prone to violent physical aggression (Lipari & Park-Lee, 2020; Yu et al., 2017). Further research is needed to examine Black adolescent males' perceptions of mental health services and reported barriers to accessing and utilizing available mental health resources.

Adolescents who receive adequate mental health support during early adolescence have improved long-term mental health outcomes throughout their lives (Uher & Pavlova, 2016; Watkins, 2012; Maalouf & Brent, 2012; Birmaher et al., 2000). As evidenced by their increasing suicide rate, Black adolescent males have unmet mental health needs that should be addressed by ensuring their access to and utilization of mental health resources. This study examines potential psychosocial factors and barriers to access for Black boys' use of SBMHR.

School-Based Mental Health Resources

Mental health resources in public K-12 schools in the U.S. have grown substantially in the number of resources and types of resources available, over the past two decades. Data from the 2019 Indicators of School Crime and Safety report indicate that as of 2018, 51% of public schools in the United States provide diagnostic mental health assessments, 38% provide full mental health treatment services, and 80% of the schools in the united states that offer mental health services report providing at least 1000 students, from individual schools, with diagnostic assessments each year (Wang et al., 2019). Although the data do not speak to the efficiency and effectiveness of these services, the increased range of services and mental health resources in schools is promising. Recent pushes by scholars and policymakers to further expand SBMHR provide hope that the availability of these resources in schools will continue to increase. Additionally, recent studies have reported an increase in mental health support training provided to teachers and other key school personnel as a way of identifying and supporting students that are experiencing mental health crisis that may otherwise go unnoticed and unsupported (Hart et al., 2018; Walker, 2021).

Providing SBMHR in K-12 schools can help eliminate many of the physical access barriers associated with the underutilization of community-based mental health resources. For example, Iskra et al. (2018) examined barriers to community-based mental health services identified by the parents of children experiencing a mental health crisis. Parents largely identified barriers related to physical access, such as wait times, cost of services, receiving referrals, and having to take time off work to attend sessions. Additional studies have identified a lack of insurance, transportation issues, and low mental health literacy or a lack of knowledge about mental health conditions as key barriers that impede the use of community-based mental health services and resources (Planey et al., 2019; Thompson et al., 2015). Removing access barriers to community-based mental health



resources has the potential to significantly increase the use of mental health resources by adolescents, especially Black adolescents who are at greater risk of experiencing many of these access barriers (Bains et al., 2017; Becker et al., 2015; Green, 2017). In addition, by integrating mental health resources into the school setting, many of these barriers can be overcome by offering freely available comprehensive mental health services in a centralized location, where adolescents often have a sense of comfort and familiarity (Shelemy et al., 2019).

Schools can act as avenues of access to formal mental health services beyond the school setting. Frequently, school staff are the first point of contact for students experiencing mental health challenges (Moon et al., 2017; Theron & Engelbrecht, 2012). Repeated interactions with students allow school staff to recognize sudden changes in student behaviors, changes in school performance, and other indicators of a developing or ongoing mental health concern (Roorda et al., 2011). Studies of SBMHR have shown an increase in programs designed to train teachers and other school staff as informed mental health gatekeepers and supports (Mo et al., 2018; Robinson-Link et al., 2020). Gatekeepers is defined as individuals or groups that can grant or possibly limit access to services upon their discretion (Corra & Willer, 2002; Robinson-Link et al., 2020). Teachers can act as gatekeepers, as they are often the first to identify significant changes in student behaviors and categorize those changes as either indicative of a mental health challenge that needs treatment, or behavioral which would warrant discipline. When properly trained in mental health, teachers and school staff have been instrumental in providing mental health support to students, as well as guiding students to necessary mental health resources both in the school and in their communities. Programs such as Mental Health First Aid, and Social, Emotional Learning training have been key in improving teachers' abilities to provide suitable mental health support for students in need while also guiding them into more structured formal mental health supports (Hart et al., 2018; Schonert-Reichl, 2017).

Though there has been rapid growth in the amount of mental health resources in K-12 schools, there continues to be a lack empirical scholarship on the use of these resources that is disaggregated by race and gender. This is especially evident for Black adolescent males, a group uniquely vulnerable to depression and depressive symptoms given their increased risk of experiencing poverty, punishment, racism, discrimination, and community violence (Banks & Kohn-Wood, 2002). A recent meta-analysis of adolescent mental health resource use conducted by Duong et al. (2021) found that a majority of adolescents experiencing elevated mental health symptoms received a significant amount of their mental health support in the school setting. However, though it discusses race, this meta-analysis did not specifically discuss

Black adolescent males use of the SBMHRs. Brown and Grumet (2009) conducted an evaluation of a school-based suicide prevention program and reported that only 14% of the Black adolescents selected to participate in the initial suicide screening both elected themselves to participate and obtained consent from their parents. Further, Brown and Grumet reported that the female to male ratio of Black adolescents who participated was 2:1 but did not discuss potential reasons for the lack of Black adolescent male participation (Brown & Grumet, 2009). This lack of research speaks to the importance of the current study and future research that is needed to examine Black adolescent males use of SBMHRs.

Barriers to Accessing and Using Mental Health Resources

Previous literature has primarily categorized barriers as either psychosocial barriers or access barriers (Ijadi-Maghsoodi et al., 2018; Ojeda & Bergstresser, 2008; Cha et al., 2019). A psychosocial barrier includes views and attitudes related to mental health, a mental health condition, or mental health services that impact a person's help-seeking behavior (Breland-Noble, 2004). For example, studies commonly identify stigmatized views of mental health and mental health services (Conner et al., 2010), treatment fears (Vogel et al., 2007), self-reliance (Planey et al., 2019), and cultural/ social norms (Lindsey et al., 2006) as internalized barriers that impede mental health help-seeking. Access barriers are most often beyond the control of the individual. These are physical and system-level barriers that obstruct access to resources, such as the location of services (Platell et al., 2017), transportation issues, insurance status, and time/ availability (Thompson et al., 2015).

Despite a large amount of research on barriers to mental health resource use, few studies have examined barriers specific to Black adolescent males' resource use. Available studies report that Black adolescent males rely on family and close friends more often than formal systems for mental health support (Breland-Noble et al., 2006; Lindsey et al., 2010). Other reasons why Black adolescent males avoid using mental health resources include as a distrust of formal services, a lack of knowledge of where to access services, and adherence to sociocultural masculine norms such as guarded vulnerability, avoidance coping, and physical aggression (Lindsey et al., 2006; Powell et al., 2016; Congressional Black Caucus, 2020). Although some studies have examined barriers to Black adolescent males' use of mental health resources (Barksdale et al., 2010; Planey et al., 2019; Samuel, 2014), no studies have specifically examined barriers to Black adolescent males' use of SBMHRs.



Sociocultural Factors

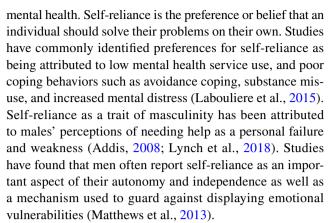
Sociocultural barriers to Black Americans' underutilization of available mental health resources include conservative religious views, stigma and shame associated with mental illness, and a general mistrust of formal health services (Burkett, 2017; Planey et al., 2019). Associated with these sociocultural barriers is the historical and contemporary abuse and mistreatment of Black Americans by formal mental health services (Breland-Noble et al., 2006). Though few studies have been conducted specifically on barriers to Black adolescents' use of mental health resources, studies have found that many of the sociocultural barriers are shared intergenerationally and, therefore, often instilled in Black adolescents early in life (Lindsey et al., 2006, 2013). Such intergenerational transmission of sociocultural barriers is likely associated with Black youths' underuse of all forms of mental health resources (Burkett, 2017).

Masculinity

Some studies have found that adherence to and internalization of traditional masculine ideologies and norms are associated with Black adolescent males' underutilization of available mental health resources (Addis & Mahalik, 2003; Cheatham et al., 2008). Some studies have reported that male's adherence to traditional masculine ideologies can account for up to 50% of variability in their mental health help-seeking attitudes, where greater endorsement of traditional masculine ideals is associated with worse mental health help-seeking attitudes (Yousaf et al., 2015). These findings align with broader studies of masculinity and socialized gender paradigms that suggest that males throughout their lives are significantly less likely to seek support when experiencing mental health challenges compared to females, even though they often report greater experiences with mental distress and substance misuse (Berger et al., 2013; Hudson et al., 2018; McCusker & Galupo, 2011). Research suggests that males' adherence to socialized masculine norms such as emotion suppression, self-reliance, acting as a provider, and bravado attitudes is often negatively associated with males of use of available mental health resources (Addis & Mahalik, 2003; Vogel et al., 2007). Furthermore, studies of boys' adherence to socialized masculinity have found that boys begin to partake in many of these troubling masculine norms at a very young age, often attempting to prove their "manhood" (Brooks, 2010; Vogel et al., 2011).

Self-reliance

Self-reliance is a common trait of masculinity and adolescence, and has been found to also be associated with Black Americans sociocultural norms especially as it pertains to



Similarly, studies have found that adolescence over time attempt to rely on themselves more and more to address mental health challenges as a way of asserting greater independence. Adolescents as they transition towards adulthood often report the belief that they need to be more independent from family and caregivers. Additionally, adolescence as a developmental stage can often be described as a time of confusion and self-exploration, leading many adolescents confused about when and from whom to seek mental health support from when experiencing mental distress (Labouliere et al., 2015; Zimmer-Gembeck & Skininer, 2011).

Additionally, studies have reported that Black Americans are more likely to attempt to address their mental health needs on their own when compared to those of other racial groups (Burkett, 2017; Planey et al., 2019). Some studies contribute this to cultural mistrust of formal mental health services, while other studies have found that Black Americans often experience multiple systemic barriers to accessing mental health services and therefore have adapted by relying on themselves and their communities to address mental health challenges (Burkett, 2017).

Stigma

Adolescent males often report negative stigmatized views of mental health and mental health services. Though associated with multiple potential psychosocial barriers, self-stigma and perceived stigma have been found to be associated with disparities in mental health service utilization. Stigma is an aspect of socialization based on how one believes others will perceive them for using mental health services or being associated with a mental illness (Link & Phelan, 2001, 2013). Studies have found stigma among adolescents to be particularly debilitating due to adolescents' heightened desire to build peer relationships and the fragile state of their identity development (Chandra & Minkovitz, 2006; Steinberg, 2014). More specifically, multiple studies suggest that boys of all backgrounds often report feelings of discomfort, embarrassment, fear, and shame when asking for help to address mental health challenges, due to stigmatized views



of depression and other mental health challenges (Gulliver et al., 2010; Lynch et al., 2018).

Mental health stigma among Black adolescents has been found to impact how they exhibit symptoms of mental health challenges, how they define mental health and mental health challenges, how they seek help, and from whom they seek help (Breland-Noble et al., 2006; Moses, 2009). Black adolescents tend to hold more stigmatized views of mental illness and mental health services than their White counterparts. For example, Moses (2009) reported that Black adolescents were less likely to identify their mental health problems as being pathological and were less likely to label their emotional problems as a mental health challenge when compared to White participants. Additionally, Barksdale and colleagues (2010) found that Black adolescents held more negative views of mental health services and were less likely to have reported using SBMHR than their White counterparts, due to fear of social stigma. Studies suggest that Black adolescents frequently inherit sociocultural and often very stigmatized views of mental health and formal mental health services (Burkett, 2017). For example, Planey et al. (2019), in a study on Black adolescents and their family's help-seeking behaviors, found that Black adolescents identified their family, usually a primary caregiver, as the source of their stigmatized views of mental health.

The Present Study

Given the importance of SBMHR for addressing the mental health needs of Black adolescent males and the paucity of studies that examine barriers specific to Black adolescent males' use of these available resources, this study looks to address the following research question: What barriers are associated with Black adolescent males' use of SBMHR? Additionally, this study aims to (1) identify the common resources Black adolescent males' use for mental health support in their school setting, (2) identify the common barriers to SBMHR use as identified by Black adolescent males, and (3) identify the association between psychosocial and access barriers and SBMHR use. This study contributes to the areas of Black adolescent males' mental health and help-seeking behaviors by identifying barriers that could negatively impact Black adolescent males 'use of the mental health resources most readily available to them. Given previous literature demonstrating the barriers that Black adolescent males often identify as impacting mental health resource use, it was hypothesized that psychosocial barriers, including stigma, self-reliance, negative perceptions of services, lack of trust, and previous negative experiences with services, will be negatively associated with Black boys' use of SBMHR. As this study is exploratory in nature, no specific hypotheses were made about which barriers will have the greatest impact on resource use.

Methods

Data

Data for this study are taken from needs assessment surveys conducted during the 2018-2019 academic year at two mid-size high schools (1000–1500 students) in southeastern Michigan. The racial demographics of the first school are 53.3% White, 30.2% Black/African American, 7.6% Hispanic, 7.0% two or more races, 1.5% Asian, 0.3% Native Hawaiian/Pacific Islander, and 0.1% American Indian/ Alaska Native. This school is 53% male and 47% female. The second school's racial demographics are 54.1% Black/ African American, 22.4% White, 10.0% two or more races, 9.8% Hispanic/Latino, 3.5% Asian/Asian Pacific Islander, and 0.2% American Indian/Alaska Native. This school is 51% male and 49% female. Inclusion criteria for participants were being between ages 14 and 18 years old, being able to read and write in English, and being enrolled in one of the two schools sampled. The needs assessment was conducted via a collaboration with the intermediate school district of a large county in southeastern Michigan and the Transforming Research into Action to Improve Lives of Students (TRAILS) program, a professional development program for school-based mental health specialists that provides training on evidence-based mental health practices for school counselors and other mental health professionals. Items included for the assessment were derived from focus group data, used to develop a master list of factors school staff perceived to be associated with student mental health service use. All participants returned a completed informed consent form signed by the student and a parent/guardian. Trained site coordinators were stationed at each school and oversaw the survey completion. Additionally, these coordinators were not matched to the demographic characteristics of the study population. This secondary analysis was approved by the University of Michigan institutional review board for human subject research [HUM00183896].

Sample

For this study, only data from participants who identified as male, Black, and between the ages of 14–18 years old were included in the analysis. Notably, Black identity also included those who identified as having biracial or multiracial identities inclusive of Black as a racial identity. 51 boys (29.65%) were identified as being of mixed race. Responses from 165 Black adolescent males were included in the analysis. The mean age of participants in the analysis was 15 years



old (15.65; SD 1.00), with most participants being between 9 and 10th grade (n = 105; 63.6%).

Measures

School-Based Mental Health Resource Use

Participants' mental health resource use was assessed with a dichotomous outcome variable generated from the previously multiple-choice question, "Which school resources have you used in the past year to help with stress or related concerns?" Response options originally included school mental health resources such as "school psychologist," "school social worker," "teacher," and "school nurse." Since this study examines the overall utilization of any schoolbased mental health resource, and to avoid issues with multicollinearity, the dichotomous outcome variable was developed by combining the resources into one question with a 1 or 0 option, 1 indicating yes, a participant had used at least one school mental health resource in the past 12 months and 0 indicating a participant had not used any of the identified school mental health resources in the past 12 months. For the purposes of this study teachers are included as a mental health resource because previous research has identified the important role that teachers have in identifying and addressing student mental health needs (Zolkoski, 2019). Black students, especially, often prefer informal mental health support over formal mental health support (Lindsey et al., 2017; Walker, 2021). Informal mental health resources, such as teachers in a school setting were included to ensure that sociocultural norms of Black adolescents as they relate to mental health help-seeking were properly considered.

Barriers

Barriers were assessed by asking participants to choose which of the following things might stop them from seeking mental health services of any kind. Each barrier was converted to an individual dichotomized variable coded 1 = yes or 0 = no. Access barriers included in the analysis were: "transportation concerns", "time constraint", "insurance status", and "parents would forbid". Psychosocial barriers included barriers that were specific to the participant's perceptions of mental health and mental health services, as well as their preferences for mental health support. Psychosocial barriers included "self-reliance", "stigma", "negative perception of service", "fear of treatment", and "past negative experience with treatment". Each barrier was included in the model as a single item.

Age and depression were treated as control variables in the models. Age was treated as a control variable to assess potential developmental differences, measured as a continuous variable ranging between 14 and 18 years old.

Depression was included as a control variable to examine potential differences between boys who met criteria for major depression and those who did not. Depression was measured using the Patient Health Questionnaire (PHQ-9) modified for adolescents (PHQ9-A). The PHQ9-A is a depression module that evaluates the severity of depression using the 9 DSM-5 criteria measured, ranging from "0" (not at all) to "3" (nearly every day). The PHQ9-A has been used by many other studies to assess adolescent levels of depression and has been found to be valid and reliable for differing racial/ethnic groups, including Black adolescents (Huang et al., 2006; Kroenke et al., 2001; Richardson et al., 2010). The PHQ9-A for this subsample of adolescent males was found to be highly reliable (9 items: $\alpha = .87$). Additionally, given the differences in the racial make-up of the schools that participants attended, the school that participants attended was also treated a control variable.

Data Analysis

Descriptive analyses were performed with frequency distributions on each relevant variable to develop a demographic profile for this sample of Black adolescent males. Bivariate analysis with cross-tabulations and chi-square tests of significance were performed to identify associations between the use of SBMRH, socio-demographic variables, barriers, and depression. To identify variables associated with barriers, as well as to identify the barriers that significantly influence the odds of Black adolescent males in the sample who used SBMHR multiple logistic regression models were used.

The logistic regression analysis was conducted using the logit command weighted for the analysis of a subpopulation from complex survey data in Stata version 16 (Stata, 2019). Two separate models were conducted to avoid issues of multicollinearity between independent variables. The first model examined the effect of access barriers on the SBMHR use on study outcomes. A second model was conducted to examine the effects of psychosocial barriers.

Results

Descriptive Data

Descriptive analysis, reported in Table 1, was completed to identify the proportion of Black adolescent males who used a SBMHR, as well as which resource they most frequently used. Seventy-two (43%) of the Black adolescent males in the study reported using at least one SBMHR in the past 12 months. Teachers were the most used resource, with 47 participants (28.4%) reporting going to a teacher for emotional or mental health support; school social



Table 1 Participant descriptives

	Freq	Percent	Mean	Stand. Dev	95% CI
Age	_	_	15.65	1.00	15.58–15.88
14	22	13.33%	_		
15	40	24.24%	_		
16	64	38.79%	-		
17	36	21.82%	-		
18	3	1.82%	_		
Grade	_	_	10.06	.867	9.93-10.19
9th	52	31.52%	_		
10th	53	32.12%	_		
11th	56	33.94%	_		
12th	4	2.42%	_		
Mental health resource use	72	43.64%	_	_	_
Teacher	47	28.48%			
Social worker	21	12.73%			
Psychologist	8	4.85%			
Nurse	7	4.24%			
Counselor	20	12.12%			
Principal	9	5.45%			
Support group	11	6.67%			
Special Ed. teacher	7	4.24%			
None					
Total sample depression severity (PHQ9-A score)	-	-	5.87	5.83	4.99–6.75
None (0–4)	86	50.88%	_		
Mild (5–9)	47	28.07%	-		
Moderate (10–14)	20	11.70%	_		
Mod.—severe (15–19)	8	4.68%	_		
Severe (20–27)	8	4.68%	_		
Total sample	_	_			
Major depression (PHQ9-A score)					
No (0–9)	135	78.95%	_		
Yes (10–27)	36	21.05%	_		

workers/counselors were the next most used SBMHR, with 21 participants (12.7%) reporting going to a school social worker or counselor. The mean PHQ9-A score for Black adolescent males in the study was 5.87, meeting criteria for mild depression. Additionally, the mean PHQ9-A score for boys who identified as seeking mental health support from a school resource was 6.7, slightly higher than those who reported not seeking support (M = 5.2). Eighty-two (49.6%) Black adolescent males in the study reported moderate to severe levels of depression, with 35 (21%) meeting the criteria for major depression (PHQ-A \geq 10). Additionally, the bivariate analysis showed no significant relationship between Black boys experiencing depressive symptoms and their use of SBMHR (p = .096). Correlation outcomes from the bivariate analysis are included in Tables 2 and 3.

Access Barriers and School-Based Mental Health Resource Use

The multiple logistic regression model that examined the association between access barriers and SBMHR use showed no significant relationships between any access barriers and SBMHR use. A test of the full model compared to the null model using the log-likelihood ratio test was not statistically significant $\chi^2 = 6.0$, p = 0.429. No coefficients were found to be significantly associated with SBMHR use; see Table 4 for significant levels of each coefficient.

Psychosocial Barriers and School-Based Mental Health Resource Use

The logistic regression model predicting the association between psychosocial barriers and SBMHR use found



 Table 2
 Access barriers

 correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) SBMHR	_						
(2) No transportation	0.017	_					
(3) No time	0.102	0.066	_				
(4) Lack of insurance	0.083	0.420**	0.144	_			
(5) Parents will not allow it	0.019	0.088	0.101	-0.035	_		
(6) Age	0.084	-0.101	0.013	0.061	0.004	_	
(7) Depression	0.061	0.193*	0.175*	0.224	- 0.082**	- 0.137	-

^{***}p < .01, **p < .05, *p < .1

Table 3 Psychosocial barriers correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) SBMHR	_							
(2) Self-reliance	-0.149	_						
(3) Stigma	0.175 *	0.194 *	_					
(4) Services don't help	0.011	0.200 **	0.140	_				
(5) Don't trust services	0.101	0.258 **	0.415**	0.18 8*	_			
(6) Bad experience	0.055	0.275 **	-0.001	0.299 **	0.018	_		
(7) Age	0.084	0.005	0.098	0.142	0.044	-0.040	_	
(8) Depression	0.061	0.279 **	0.226**	0.141	0.24 3**	0.262 **	- 0.137	-

^{***}p<.01, **p<.05, *p<.1

Table 4 Access barriers to SBMHR use logistic regression output

School resource use (SBMHR)	Odds ratio	St. Err	t-value	p value	[95% Conf. interval]		Sig
Transportation	0.88	0.56	- 0.19	0.84	0.25	3.06	
Time	1.90	1.17	1.05	0.29	0.57	6.36	
Insurance	1.84	1.60	0.70	0.48	0.33	10.17	
Parent forbid	1.29	1.37	0.25	0.80	0.16	10.28	
Age	1.22	0.19	1.24	0.21	0.89	1.67	
Depression	1.31	0.53	0.68	0.49	0.59	2.91	
Schools	1.14	.18	0.80	0.42	0.82	1.57	
Constant	0.029	0.07	- 1.38	0.16	0	4.37	
Pseudo r-squared		0.028		Number of ob	s		165.000
Chi-square		4.592		Prob > chi2			0.597
Akaike crit. (AIC)		238.271		Bayesian crit.	(BIC)		260.097

^{***}p < .01, **p < .05, *p < .1

self-reliance and stigma to both be statistically significant. Participants who endorsed self-reliance as a barrier were significantly less likely to utilize SBMHR (OR 0.23; p .005; CI 0.08–0.66), while participants who endorsed stigma as a barrier were significantly more likely to use a SBMHR (OR 3.77; p < .05; CI 1.11–12.78). The three remaining psychosocial barriers (negative perception, fear of treatment, past negative experience) were not found to be significantly associated with SBMHR use. Additionally, age, depression, and the participants' school as control variables had no significant effect on

the outcomes. Table 5 reports the significant contributions of each predictor variable to SBMHR use. The strength of association between the predictors was fairly weak based on the pseudo R^2 (Cox and Snell R^2 =0.094; Nagelkerke's R^2 =0.127) (Peng et al., 2002).



Table 5 Psychosocial barriers to SBMHR use logistic regression

School resource utilization (SBMHR)	Odds ratio	St. Err	t-value	p value	[95% Conf. interval]		Sig
Self-reliance	0.23	0.11	- 2.81	0.005	0.08	0.66	***
Stigma	3.77	2.20	2.08	0.03	1.11	12.78	**
Neg. perception	0.76	0.42	-0.49	0.62	0.25	2.253	
Trust	2.04	1.42	1.02	0.30	0.51	8.036	
Neg. experience	3.55	3.00	1.50	0.13	0.67	18.672	
Age	1.23	0.21	1.26	0.20	0.88	1.728	
Depression	1.41	0.63	0.77	0.44	0.58	3.41	
Schools	1.21	0.21	1.15	0.24	0.87	1.71	
Constant	0.02	0.07	- 1.36	.017	0.00	5.028	
Pseudo r-squared		0.094		Number of ob	S		165.000
Chi-square		17.119		Prob>chi2			0.013
Akaike crit. (AIC)		227.744		Bayesian crit.	(BIC)		252.688

^{***}p < .01, **p < .05, *p < .1

Discussion

The present study examined potential access and psychosocial barriers to the use of SBMHR for a group of 165 Black adolescent males enrolled in two local high schools in Southeastern Michigan. Study results show that nearly half of the participants in the study reported using a SBMHR at least once in the past 12 months. Furthermore, the results of the regression analysis suggest that the participants preference to address their mental health needs on their own (selfreliance) was a significant barrier to SBMHR use. These participants were 77% less likely than participants that did not report self-reliance as a barrier to use a SBMHR. Meanwhile, participants who identified mental health stigma as a concern were 377% (3.7 ×) more likely to report using a SBMHR than those that did not report stigma as a barrier. The findings highlight the importance of addressing Black adolescent males' desires to address their mental health needs on their own, as well as the importance of mental health resources availability in schools given the high rate of participants utilizing mental health support in their school.

School-Based Mental Health Resources

Findings from this study suggest that a large number of Black adolescent males in the current study are making use of SBMHRs, with nearly half of the adolescent males in this study (43%) using at least one SBMHR. Teachers are most commonly the first point of contact for SBMHR utilization (Zolkoski, 2019), but given the cross-sectional design of this study, the direction of the relationship is not known, meaning it is not known if the participants are seeking support from teachers first and then seeking other resources or vice versa. However, previous qualitative studies have found

that Black adolescent males often identify teachers as an initial step toward utilizing formal mental health resources (Lindsey et al., 2006; Lindsey et al., 2010). Black adolescent males tend to prefer informal mental health support from family members but will often seek mental health support from teachers and other school staff that they've grown close. Therefore, it is plausible that the participants' choice of teacher as their first contact with SMBHR is related to the close relationships often established with specific trusted teachers, allowing a more comfortable transition to more formal mental health resources. Future studies are needed to gain greater understanding of how Black boys are differentiating the formal nature of the mental health resources in their schools.

Access Barriers to School-Based Mental Health Resource Use

Results from this study found no access barriers to be significantly associated with the participants' use of a SBMHR. Greater integration of mental health resources with K-12 schools has been found to significantly lower the impact that access barriers may have on the use of formal communitybased mental health resources (Guo et al., 2017; Stormshak et al., 2010; Williams, 2013). These recent studies argue that schools often offer a centralized location in which adolescents have convenient and free access to mental health support. Students do not have to worry about insurance or other financial barriers and can discreetly use the mental health resources in their school, helping overcome potential access barriers that often negatively impact the use of resources in community-based settings (Dowdy et al., 2010, 2015; O'Connor et al., 2017). The findings from the current study show that access barriers may not significantly deter



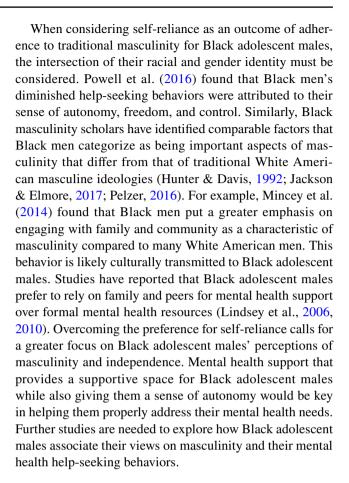
mental health resource use for Black adolescent males. However, this cannot be substantiated because the cross-sectional nature of this study cannot determine causal relationships (see "Limitations and Future Directions" section).

Psychosocial Barriers to School-Based Mental Health Resource Use

Two psychosocial barriers, self-reliance and stigma significantly predicted SBMHR use. Interestingly, while self-reliance had a negative association with SBMHR use, stigma was positively associated with SBMHR use. In agreement with several previous studies, psychosocial barriers were among the most significant barriers to mental health care use, even when mental health care resources are readily available (Ojeda & Bergstreser, 2008; Cha et al., 2019). While many access barriers can often be overcome by improving the physical location and availability of mental health services, psychosocial barriers call for significant resocialization, as well as adaptation of mental health services to address internalized perceptions of these services and of mental health in general.

Self-reliance

Participants in this study who identified self-reliance as a barrier to using a mental health resource were nearly 80% (OR .224) less likely to use an SBMHR. This finding aligns with previous research that identified self-reliance as a significant barrier to using available mental health resources for adolescents, given their increased desire for independence (Becker et al., 2014; Gulliver et al., 2010; Sakai et al., 2014). However, studies also suggest that adolescent males' self-reliance may be particularly challenging to overcome, given its association with traditional masculine ideologies. For example, Lynch et al. (2018), in a study of late adolescent boys' mental health help-seeking behavior, found that they were reluctant to seek help and preferred to address their mental health needs on their own, which often lead to avoidant coping behaviors (see Horwitz et al., 2011). Moreover, many of the participants in their study attributed this self-reliant behavior as a characteristic of manhood and masculinity. Similarly, a study conducted by Lindsey and Marcell (2012) found that Black adolescent males' preference for addressing their mental health needs on their own was attributed to their perceptions of manhood and masculinity. Other studies have identified traditional masculine traits such as independence, leadership, assertiveness, and guarded vulnerability as discouraging adolescent males from using mental health resources, leading them to address their mental health needs in isolation (Addis, 2008; Addis & Mahalik, 2003).



Stigma

Participants in the study who reported stigma as a barrier to using mental health services were nearly four times more likely (OR 3.77) to use an SBMHR. This finding conflicts with much of the previous research, which has reported stigma to be a significant barrier to mental health service use (Henshaw & Freedman-Doan, 2009; Johnson et al., 2012; Planey et al., 2019). For example, studies such as those of Vogel et al. (2011) and Masuda et al. (2012) found stigma to be associated with males' avoidance of formal mental health resources and their preference to address their mental health needs on their own. However, findings from the current study show that participants who are concerned about stigma were actively seeking support in their school, suggesting that participants may view their schools as a place of refuge and support. Some previous studies support this assertion. For instance, Lindsey et al. (2010, 2013) found that Black adolescent males who reported stigmatized views of mental health services were more likely to seek out support from informal resources due to a greater sense of comfort and trust. Additionally, they found that social support had a positive interactive effect between service utilization and mental health stigma.



Schools and school staff have a unique role in adolescents' lives. Though traditionally viewed as formal institutions, schools are spaces where young people spend most of their time and often take part in informal activities such as socializing with peers, fostering romantic relationships, and developing supportive relationships with school staff (Decker et al., 2007; Gale, 2020; Shaunessy & McHatton, 2009). The informal aspects of the school setting may provide students with a sense of comfort that is similar to what they receive in their homes and from family and peers. In this case, students may not view their school setting as being as formal as scholars believe. Perceiving schools as an informal setting could facilitate Black adolescent males' use of mental health resources in schools, especially for adolescent males in need of support who personally harbor stigmatized views of mental health and mental health services or are concerned about being stigmatized. Additionally, one could argue that students concerned with the stigma of mental health resources would seek out teachers and other school staff informally—the teacher could then provide support as well as direct the students to more formal resources, thus lowering the barrier of entry. This could also explain why this effect is not observed in students primarily motivated by self-reliance, as they would be less likely to reach out to teachers in the first place.

Black Adolescent Males and Depression

Participants had a mean PHQ9-A score of 5.87, which meets the criteria for mild depression (Huang et al., 2006). Furthermore, nearly half of the boys were found to have moderate or higher levels of depression, with over 20% meeting the criteria for major depression based on their PHQ9-A scores (≥ 10) . The rates of depression observed in this study are nearly double the national rate of 9.5% for Black adolescents between ages 12 and 17, and more than three times the national rate of 6.8% for adolescent males in general (Center for Behavioral Health Statistics & Quality, 2018). These findings align with previous studies indicating that Black adolescent males often have unmet mental health needs and that Black individuals often do not use formal mental health services, even when experiencing significant mental distress (Hudson et al., 2018; Lindsey et al., 2013). Specifically, evidence suggests that Black adolescent males are under-assessed for mood disorders such as depression and anxiety, often due to the misrecognition of their depressive symptoms as behavioral issues, as well as their low levels of formal help-seeking (Barksdale et al., 2010; Schwartz & Blankenship, 2014). The high rate of depression among these participants supports the overall scope of this study: that a greater focus is needed on improving and tailoring SBMHR for Black adolescent males to better address their mental health needs.

Implications

Investments in SBMHR have largely provided promising results in addressing the many mental health needs of adolescents. When schools work to develop or adopt programming that provides culturally specific and contextually accurate support, studies have found that Black students are increasingly likely to utilize these supports (Bean, 2011; Patil et al., 2018). Culturally responsive approaches embedded in schools can promote healthy coping behaviors, reduce the stress that is disproportionately experienced by Black adolescent males, and significantly improve mental health assessments in identifying Black adolescent males experiencing mental health challenges (Bentley-Edwards et al., 2013). Factors such as stigma and self-reliance have been attributed to a decreased likelihood of using available mental health resources (Campbell & Mowbray, 2016; Teh et al., 2014). However, findings from the current study suggest that mental health support in schools may be able to overcome such barriers, particularly mental health stigma, as well as, identifying Black male students that may be attempting to address a mental health challenge on their own. The findings from the study suggest that many Black adolescent males may be actively seeking mental health support and that schools can provide some protection against stigma that would otherwise deter these adolescents from seeking mental health support. A greater understanding of the barriers that impact Black adolescent males use of these resources and what school level factors may be acting as protective factors is pertinent in effectively addressing the mental health needs of Black adolescent males.

Expanding mental health training for teachers is one key strategy to address the mental health needs of black adolescent males given their significant endorsement of self-reliance as a strategy for addressing mental health challenges. Improving teachers' ability to identify potential mental health crises and provide direct support could improve their ability to identify students that would otherwise go unnoticed (Moon et al., 2017; Williams, 2013). Further, for students that are attempting to address their mental health needs on their own, teachers are often one of the first to recognize behavioral changes and issues (Graham et al., 2011). This is key for Black adolescent males that are largely relying on themselves to address their mental health needs and avoiding available mental health resources. Additionally, in expanding mental health training for teachers it is important to ensure that the training is considering and teaching important sociocultural context relevant to the mental health and mental health help-seeking behaviors of Black adolescent males. Teachers, intermediate role as informal mental health support



within a formal setting such as schools can be used to provide support to Black adolescent males while also not infringing on their sense of independence and agency in how they choose to attend to their mental health needs.

Recent school-based mental health interventions have found much success in addressing student mental and emotional health. Baroni et al. (2016) evaluated a traumainformed socio-emotional learning intervention in an alternative high school; they found that teachers were a significant source of support for students and the school acted as a central location where students felt comfortable enough to ask for and receive mental health support. Moreover, studies on students' school attachment have found that students with positive school attachment are more likely to be open to and seek support from teachers and school staff (Oldfield et al., 2016). Studies that call for greater implementation of SBMHRs often specify schools as being closely associated with students' families, peers, and overall home life, often providing a similar sense of comfort (Dishion & Kavanagh, 2003). Research on Black males has similarly argued that when school mental health resources are linked with students' families, communities, and peers, they will better be able to serve and support Black males' mental health needs.

Limitations and Future Directions

Despite the contributions of this study, some limitations should be considered. This study used a sample of Black adolescent males in Southeastern Michigan and the findings may not be generalizable to Black adolescent males from other regions of the U.S. or globally. This study also utilizes cross-sectional data, which does not account for changes over time or confounding variables, and therefore cannot establish a causal relationship. Additionally, the cross-sectional nature of this study limits its understanding of stigma and where the stigma originates; whether participants utilized the SBMHR and then were concerned about being stigmatized, or whether they sought support in their schools as a way of protecting themselves from being stigmatized. Future studies would benefit from a nationally representative sample that would allow for more generalizable results regarding barriers and facilitators to Black adolescent males' use of SBMHR. Furthermore, longitudinal data would allow for the examination of changes in mental health resource use over time and potentially establish a causal relationship.

This study was conducted as secondary analysis and therefore was limited by the items included in the dataset. Many of the independent variables included in the analysis are single-measure items; the full constructs of each of these may not be fully captured by the single items. Future studies should look to examine the effects of these barriers using previously reliable scales. Additionally, data collected via self-report in the study may potentially be subject to

recall bias. Finally, future studies should look to consider the impact of the COVID-19 pandemic on Black adolescent males help-seeking behaviors and use of SBMHRs. The COVID-19 pandemic causes significant disruption to schooling and students' access to the mental health resources offered in their schools, while also significantly impacting students' mental health for the worse. Data for this study was collected prior to the COVID-19 pandemic, but future studies should consider its impact on Black male adolescent use of SBMHRs.

Conclusion

This study addresses a significant gap in the literature on Black adolescent males' mental health and service utilization and provides insight into ways to increase Black adolescent males' utilization of SBMHRs. This study benefits from a large sample size of Black high school-aged males, a population often difficult to sample in schools with a large variety of mental health resources available. Future studies should consider exploring the context of school mental health resources that could benefit Black adolescent males when using the resources, for example, race and gender identities of counselors, social workers, and teachers, as well as students' perceptions of ease of access to school resources and Black boys' school attachment. This study serves as an early step in exploring how SBMHRs can better serve the needs of Black adolescent males. Identifying potential barriers to Black adolescent males' use of SBMHRs provides mental health and educational scholars, interventionists, social workers, and mental health professionals with insight on how to improve these resources and better enable Black adolescent males to utilize them.

Declarations

Conflict of interest The authors declare no potential conflicts of interest.

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