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SUFFOLK UNIVERSITY

MENTAL HEALTH STIGMA
AND PSYCHOLOGICAL HELP-SEEKING IN ADOLESCENCE

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE COLLEGE OF ARTS AND SCIENCES
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
DEPARTMENT OF PSYCHOLOGY

BY

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BOSTON, MASSACHUSETTS

MAY 2022

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This dissertation is dedicated to youth who are struggling, who feel alone or overwhelmed, and who need support. You are enough. May this work help you access the support you need and deserve.

Abstract

Although an overwhelming number of adolescents in the U.S. experience significant psychological distress, the majority of these youth do not receive formal mental health services. Mental health stigma has been identified as a significant barrier to psychological help-seeking during adolescence, with treatment stigma (or the stigma associated with seeking formal psychological services) as the strongest predictor of help-seeking when compared to other types of mental health stigma. Given the long-term impacts of untreated psychological distress in adolescence, more research is needed to understand the influence of mental health stigma on help-seeking during this developmental stage. Furthermore, more research is needed to provide a fuller picture of how these constructs vary by race, gender, and age. The current study aims to: (1) investigate how personal treatment stigma, perceived parental treatment stigma, and perceived peer treatment stigma influence adolescent psychological help-seeking from both informal and formal sources of support; and (2) examine how personal treatment stigma, perceived parental treatment stigma, perceived peer treatment stigma, and help-seeking behavior vary based on race, gender, and age. Findings revealed that perceptions of treatment stigma, especially from parents, impact both personal treatment stigma and psychological help-seeking, and that personal treatment stigma mediates the relationship between perceived and personal treatment stigma. Results also revealed significant variations in psychological help-seeking behaviors and personal and perceived treatment stigma by race, gender, and age, adding nuance to our understanding of mental health stigma during this developmental period. More generally, results point to the ongoing importance of addressing not only personal treatment stigma, but also parental treatment stigma, in order to increase youth's psychological help-seeking and allow for improved adolescent mental health.

Introduction

A large body of research has documented high rates of psychological distress among adolescents in the United States (e.g., Merikangas et al., 2010). Despite this, most adolescents with mental health concerns do not receive formal mental health care (Merikangas et al., 2011). Although there are a myriad of barriers and facilitators that inform psychological help-seeking behaviors (i.e., requests for mental health support) among adolescents, mental health stigma (i.e., negative attitudes and beliefs about people with mental health needs) has been suggested as a significant barrier to psychological help-seeking, especially during this developmental stage (Gulliver et al., 2010). In particular, research has highlighted the salience of treatment stigma (i.e., negative attitudes and beliefs about seeking formal psychological support) and perceived stigma (i.e., the negative attitudes and beliefs that one perceives others to hold about people with mental health needs) in adolescent help-seeking behavior (Clement et al., 2015; Nearchou et al., 2018). Recent literature has also pointed to the unique role that parents or caregivers¹ play in adolescent help-seeking, suggesting that perceived stigma from parents may differently impact help-seeking than perceived stigma from other sources (Austin et al., 2022; Barksdale & Molock, 2009).

Despite evidence pointing to mental health stigma as a crucial barrier to adolescent psychological help-seeking, the research to date has not thoroughly examined the relationship between personal and perceived treatment stigma and psychological help-seeking behavior among adolescents. While there are exceptions, the majority of research on mental health stigma has examined the association between stigma and help-seeking intentions rather than actual help-seeking behavior. Additionally, while prior literature has documented the large impact that

¹ For the purposes of this dissertation, “parents” is used to refer to all parents and caregivers.

perceived stigma can have during adolescence (e.g., Nearchou et al., 2018), research has yet to examine how perceived treatment stigma from parents and peers may have unique relationships with personal treatment stigma and psychological help-seeking. Moreover, insufficient research has examined how these constructs may differ across race, gender, and age. Therefore, a fuller examination of personal treatment stigma, perceived parental treatment stigma, perceived peer treatment stigma, and psychological help-seeking behavior was undertaken to further understand pathways of psychological help-seeking among adolescents. Additionally, the current study expands on existing literature demonstrating differences in help-seeking and stigma by race and gender and explores how these constructs may also differ by age.

Background and Rationale

Mental Health Distress in Adolescence

The adolescent supplement of the National Comorbidity Survey revealed alarmingly high rates of diagnosable mental disorders among adolescents in the United States (U.S.): 49.5% of 13- to 18-year-old youth have already experienced at least one diagnosable mental disorder in their lifetime with 22.2% experiencing severe impairment (Merikangas et al., 2010). While psychological distress in adolescence can take many forms, anxiety disorders were the most prevalent of type of psychological distress, with 31.9% of 13- to 18-year-old youth having met criteria for an anxiety disorder at least once in their lifetime. Externalizing disorders were the next most common among adolescents, with lifetime prevalence rates of 19.6% among 13- to 18-year-olds, followed by mood disorders at 14.3%, substance use disorders at 11.4%, and finally eating disorders at 2.7% (Merikangas et al., 2010). While most youth experienced diagnosable psychological distress within only one class (i.e., mood, anxiety, externalizing, substance use,

disordered eating), 19.3% of 13- to 18-year-olds (or 39% of those with a diagnosable disorder) met criteria for multiple lifetime disorders.

Other research documents even higher rates of diagnosable psychological distress. For instance, extensive literature has documented the prevalence and impact of depression in adolescence; one study found that by the end of the teenage years, 20% of adolescents experience at least one major depressive episode (Bonin, 2013), a statistic that is particularly concerning given the high recurrence of adolescent-onset depression (Bonin, 2013; Ong & Caron, 2008; Solomon et al., 2000). Recent literature suggests these prevalence rates are not stagnant and may even be increasing. For instance, the 12-month prevalence of Major Depressive Disorder among 12- to 20-year-old youth in the U.S. increased 2.6% in nine years from 8.7% in 2005 to 11.3% in 2014 (Mojtabai et al., 2016b). Similarly, when comparing youth in 2001 to 2012, more youth in 2012 reported poor mental health for at least half of the days in the past month (Mojtabai & Jorm, 2015).

Rates of psychological distress in adolescence have further increased in the context of the global Coronavirus-19 (COVID-19) pandemic. During the pandemic, youth have experienced decreases in positive affect and overall quality of life (Raven-Sieberer et al., 2020; Rogers et al., 2021), while reporting higher levels of anxiety, depression, suicidality, substance use, and stress (Gazmararian et al., 2021; Hill et al., 2021; Jones et al., 2021; Panda et al., 2021; Rogers et al., 2021). Fluctuations in experiences of psychological distress appear to correspond to COVID-19 waves (Hawes et al., 2021; Hill et al., 2021). Conflict within the home has also increased, especially with quarantine and stay-at-home restrictions. Families report more parent-child conflict (Ravens-Sieberer et al., 2020) and increased rates of ED visits for child abuse were also documented in 2020 (Holland et al., 2021). While some youth's mental health has remained

unimpacted by the COVID-19 pandemic, this appears to be the exception rather than the rule. For instance, a Canadian study found that roughly two thirds of child and adolescent participants experienced increasing mental health concerns in at least one domain (Cost et al., 2021).

While psychological distress is best conceptualized as a spectrum, most studies examining prevalence of psychological distress (including those described so far) dichotomize the construct, using diagnostic categories from the Diagnostic and Statistical Manual of Mental Disorders (DSM) to determine the presence or absence of a mental disorder. However, many experiences of psychological distress fall within the “gray,” not meeting criteria for a mental disorder in the DSM, but simultaneously causing distress for the person in question and impacting their ability to live a fulfilling life. It is also important to note that the current diagnostic system, the DSM, does not include certain types of trauma, including racial trauma and other identity-based discrimination and trauma, in its criteria for post-traumatic disorders. Therefore, while a useful jumping off point, these reported prevalence rates are likely an underestimation of the actual levels of psychological distress experienced by adolescents in the U.S.

While most research examines the prevalence of psychological distress using diagnostic categories from the DSM, some research has examined psychological distress more dimensionally. A substantial portion of adolescents experience significant levels of psychological distress, but do not meet criteria for a mental disorder (Flett & Hewitt, 2013). For instance, one study estimates that up to 50% of adolescents experience significant subclinical levels of depression (Kessler et al., 2001). While most research on subclinical symptoms has focused on depression, there is also support for high rates of subclinical symptoms of anxiety, substance use, and behavioral concerns (Shankman et al., 2009).

Psychological distress significantly impacts functioning at any life stage, but can be especially impactful during adolescence as the experience of it (and the receipt or forgoing of treatment) can influence lifelong developmental trajectories. Diagnosable mental disorders impair adolescents' ability to function in family, school, and social environments (Costello et al., 2011; Kessler et al., 2012; Merikangas et al., 2010). In fact, it is estimated that up to 18% of adolescents experience significant long-term impairments from mental disorders (Costello et al., 2011). Furthermore, adolescent mental disorders that go unaddressed carry increased risks of lower educational achievement, substance abuse, violence, incarceration, unemployment and underemployment, and lower quality of life (Barksdale et al., 2010; Keiling et al., 2011). Adolescent mental disorders often continue into adulthood and literature suggests that intervention in adolescence is important in addressing both immediate and long-term impacts of psychological distress (Fryers & Brugha, 2013; Pine & Fox, 2015; Olfson et al., 2015).

There is also evidence that subclinical levels of psychological distress have lifelong impacts. Subclinical levels of depression are associated with similar impairments as diagnosable depression (Gotlib et al., 1995) and often escalate into a diagnosable mental disorder in adulthood (Flett et al., 1997). In fact, in one study, two thirds of participants with subclinical depression in adolescence met criteria for Major Depressive Disorder in adulthood (Klein et al., 2009). Research on subclinical levels of other types of psychological distress suggests a similar pattern (Leadbeater et al., 2012; Shankman et al., 2009). Subclinical levels of anxiety, depression, substance use, and behavioral concerns can escalate into diagnosable mental disorders in adulthood (Shankman et al., 2009).

Importantly, research has documented racial and ethnic differences in prevalence rates of psychological distress. Black, Indigenous, and People of Color (BIPOC) youth face systemic

oppression and ongoing racial trauma (Huynh & Fuligni, 2010; Pachter et al., 2010), which negatively impacts their development and mental health (Benner et al., 2018; Priest et al., 2013; Tynes et al., 2019). Significant literature has found higher rates of anxiety among Latinx youth, especially female Latinx youth, when compared to White youth (Georgiades et al., 2018; McLaughlin et al., 2007; Merikangas et al., 2010; Varela et al., 2004). Some research has also pointed to increased rates of depression among Latinx youth (Georgiades et al., 2018; McLaughlin et al., 2007). Black adolescents, especially Black male youth, also experience increased rates of anxiety when compared to their White peers (McLaughlin et al., 2007; Merikangas et al., 2010). Higher rates of psychological distress have also been documented among Indigenous youth in the U.S. (e.g., Whitbeck et al., 2014). Research examining prevalence rates among other racial and ethnic groups is more scarce. While some research in adult populations suggests lower levels of psychological distress among Asian Americans (e.g., Xu et al., 2011), other research reveals higher rates of suicidality and other forms of psychological distress among Asian American youth and adults than White peers (Guo et al., 2015; Liu et al., 2019).

It is also important to note that the diagnostic system itself was developed primarily by and for White people, leading to ongoing misdiagnosis, overdiagnosis of severe forms of distress like psychosis, and underdiagnosis of affective distress (i.e., depression and anxiety) (Suite et al., 2007). Although bias in the diagnostic system itself makes it difficult to know the exact rates of psychological distress among BIPOC, considerable research has documented that BIPOC youth experience higher levels of distress than their White peers, driven by systemic oppression and ongoing racial trauma BIPOC youth experience in the U.S.

There are also documented gender differences in psychological distress. A range of explanations for these documented gender differences have been offered, from biological to psychological and social. Importantly, gender socialization and experiences of individual and systemic sexism and transphobia contribute to increased rates of psychological distress among transgender, nonbinary, and female youth (Szymanski et al., 2009; Valentine & Shipherd, 2018).

The adolescent supplement of the National Comorbidity Survey revealed higher rates of mood disorders (18.3% in female youth compared to 10.5% among male youth), especially Major Depressive Disorder (15.9% compared to 7.7%), among adolescent female youth (Merikangas et al., 2010). Higher rates of anxiety (38.0% as compared to 26.1%) and eating disorders (3.8% as compared to 1.5%) have also been documented in adolescent female youth (Merikangas et al., 2010). These gender differences appear to persist when looking at psychological distress dimensionally; for instance, female youth report higher rates of subclinical depressive symptoms than male youth (Crockett et al., 2020). It is also possible that gender role socialization may lead to underreporting of depression and anxiety in male youth due to the conditioned belief that showing emotional distress is “feminine” or “timid” (e.g., Cole & Davidson, 2019; McLean & Anderson, 2009).

Inversely, adolescent male youth have higher rates of externalizing disorders, especially attentional disorders, with 13.0% of male adolescents and only 4.2% of female adolescents meeting criteria for Attention-Deficit/Hyperactivity Disorder (ADHD) (Merikangas et al., 2010). While internalized distress (e.g., depression, anxiety) has been feminized, externalizing behaviors (e.g., impulsivity, anger, behavioral concerns) are often socially acceptable forms of emotional expression for male youth. Some literature suggests that gendered expectations of

behavior may lead to both the overdiagnosis of ADHD in boys and its underdiagnosis in girls (Bruchmüller et al., 2012; Fresson et al., 2019; Greenblatt, 1994).

Beyond the gender binary, higher rates of psychological distress have also been documented among transgender and gender expansive youth, particularly when compared to cisgender male youth (Crissman et al., 2019; Lowry et al., 2018; Rimes et al., 2017). These disproportionate rates of psychological distress among gender expansive youth stems from experiences of gender-based oppression both societally and within their family; many transgender youth experience a lack of support from their families or are denied gender-affirming care by their caregivers (Fuller & Riggs, 2018; Grossman & D'Augelli, 2007).

While psychological distress can develop at any point in the lifetime, adolescence is a particularly vulnerable period for the development of clinical levels of symptomology (Venning et al., 2013). By comparing prevalence rates in middle childhood to those in adolescence, adolescence appears to be a significant period for the emergence of psychological distress (Costello et al., 2011; Kessler et al., 2005; Merikangas et al., 2010). For instance, while diagnosable depression is relatively uncommon in young children, roughly one in five adolescents experience a depressive episode by the end of high school (Kessler et al., 2001). In addition to increases in depression, increases in anxiety and substance use are also marked (Costello et al., 2011). In fact, national research has shown the average age of onset of all mental disorders to be 14 (Kessler et al., 2005), meaning that half of all lifetime mental disorders have already emerged by mid-adolescence. Rates of psychological distress continue to increase throughout adolescence and emerging adulthood, such that 75% of all lifetime mental disorders have emerged by age 24 (Kessler et al., 2005). From a developmental lens, this uptick in psychological distress during adolescence is understandable given the overwhelming amount of

change—physical, psychological, and social—that characterizes this developmental stage (Costello et al., 2011).

Early adolescence is characterized by significant physical and biological change related to puberty (Silbereisen & Kracke, 1997). These pubertal changes, as well as their timing, can impact not only how adolescents view themselves, but also how others treat and interact with them (Wolfe & Mash, 2006). For instance, girls who go through physical pubertal changes early are often perceived and treated as older than they are; early onset puberty and the resultant gap between physical and socioemotional maturity has been associated with higher rates of psychological distress among girls (e.g., Ge et al., 2001). Hormonal and neurodevelopmental changes in adolescence also impact behavior and wellbeing. During adolescence, the hypothalamic-pituitary-adrenal (HPA) axis, which plays a key role in the stress response, is more active, while the prefrontal cortex (PFC), which is important for executive functioning and emotional control, is still developing (Durstun et al., 2001). This gap between HPA activity and PFC maturation may partially explain the increase in impulsive and high-risk behavior that is associated with psychological distress (Steinberg, 2004).

Psychological and social shifts also contribute to the increased rates of distress in adolescence. Erikson purports that adolescence is a period defined by a search for self and identity, a conflict he describes as identity versus role confusion (Erikson, 1950). During adolescence, youth explore and experiment with different versions of themselves as part of the process of identity exploration and commitment. Developing a sense of independence is key in adolescence as youth strive to understand who they are separate from their family. Peers become increasingly important; youth explore their sexuality; romantic relationships emerge. This process, full of potential and excitement, also brings with it fluctuations in mood, as adolescents

learn to navigate the highs and lows of such relationships. Moreover, as youth enter Piaget's final developmental stage, formal operations, youth are increasingly able to think logically about abstract concepts (Piaget & Inhelder, 1962). The ability to think more abstractly often leads to adolescents thinking more about themselves and how others perceive them. This increased self-comparison can negatively impact self-esteem and more broadly contribute to distress (Crockett & Peterson, 1993), especially given the importance of peer relationships and a sense of peer belonging during adolescence (Collins & Sroufe, 1999). Societal pressures to find a passion and "figure it out," as well as increasingly academic and college pressure, may also contribute to stress, anxiety, and depression in this developmental stage.

Psychological Help-Seeking in Adolescence

Help-seeking is broadly defined as a request for help with a problem that an individual is facing (Barker et al., 2005). Psychological help-seeking refers to help-seeking for a social, emotional, or psychological problem, or more generally, a request for mental health support. While individuals can seek help from a wide range of sources, help-seeking can be roughly divided into two categories: (1) informal help-seeking, and (2) formal help-seeking (Rickwood et al., 2005). In the context of psychological help-seeking, informal sources include family, friends, and natural and community supports, while formal help-seeking refers to support from professional sources of help like therapists, doctors, and other health and mental health professionals (Rickwood et al., 2005).

Broadly, psychological help-seeking is considered to be an adaptive coping skill that can lead to increased well-being, although different sources of support can serve different functions and have different impacts. Informal psychological help-seeking can be a useful way to cope with problems, and research suggests that help-seeking from informal sources can buffer against

psychological distress in adolescence (Heerde & Hemphill, 2018). However, this is not always the case, as informal supports are not trained in providing psychological support. For instance, some research has demonstrated that the impact of social support on depression and anxiety in early adolescence is moderated by rumination, such that youth who have high levels of rumination do not benefit from social support seeking (Vélez et al., 2016). Among a rural sample of adolescents and adults, the utility of informal help-seeking varied by the specific informal source; while having a familial helper was not associated with psychological well-being, having an informal helper outside of the family was associated with higher wellbeing included higher post-traumatic growth (Hagler et al., 2019). Informal help-seeking has also been conceptualized as a conduit to formal help-seeking. In fact, encouragement from family, friends, and mentors has been found to be an important facilitator of formal psychological help-seeking among youth (Browne & Schwartz, 2020; Gulliver et al., 2010). Formal psychological help-seeking is widely considered to be protective, especially during adolescence (Wilson et al., 2010) as engaging with formal mental health services, especially at younger ages, can successfully reduce the long-term impact of psychological distress (Rickwood et al., 2007). Some literature suggests that the combination of formal and informal sources of psychological support is most successful at supporting adolescent well-being (e.g., Liang et al., 2005; Thompson & Peebles-Wilkins, 1992).

Adolescents' preference for informal psychological help-seeking over formal psychological help-seeking has been well documented in the literature (Calear et al., 2021; Raviv et al., 2000; Raviv et al., 2009; Rickwood et al., 2005; Schonert-Reichl & Muller, 1996; Sheffield et al., 2004; Tishby et al., 2001; Zwaanswijk et al., 2003). However, estimates of informal psychological help-seeking during this developmental period are variable and less researched. An early study with a sample of Australian adolescents, found that 77% of

participants who were moderately or severely distressed sought some form of support, with 60% seeking informal help only (Rickwood & Braithwaite, 1994). Some estimates of informal help-seeking are even higher, with one study finding that 93% of a sample of U.S. adolescents reported seeking support from friends and 85% from parents for an emotional problem within the last year (Schonert-Reichl et al., 1995). While the exact frequency of informal psychological help-seeking is unknown, research supports that informal help-seeking is more common than formal help-seeking (Calear et al., 2021; Rickwood et al., 2005), and often, informal sources, like family, are where adolescents first turn (e.g., Lindsey et al., 2010).

Despite the high prevalence of psychological distress and the significant impact it has on development, most adolescents do not receive formal mental health care (Costello et al., 2014; Merikangas et al., 2011; Sheppard et al., 2018). In fact, one national study found that approximately 36.2% of 13- to 18-year-old youth who meet criteria for a mental disorder receive formal treatment and although this treatment gap lessens as severity increases, half of youth with severe psychological distress still do not receive treatment (Merikangas et al., 2011). Other estimates are even more disheartening: Bhatia and Bhatia (2007) found that only 30% of adolescents with a mood disorder receive appropriate diagnosis and treatment and Kessler et al. (2012) argues that only 25 to 30% of adolescents who could benefit from mental health care receive it. Notably, there is some evidence that mental health care utilization increases with age (Merikangas et al., 2011).

While some youth do not seek formal support due to a lack of perceived need, there is also evidence to suggest that many youth who believe they would benefit from formal mental health care do not receive it. In fact, one study found that over half of adolescent participants who reported ever needing mental health care reported forgoing such care at least once in their

life (Samargia et al., 2006). This lack of treatment is associated with higher rates of long-term negative outcomes, including lower academic performance, poorer psychological health, increased substance abuse, and a higher risk of incarceration (Barksdale et al., 2010; Garland et al., 2005).

Rates of formal psychological help-seeking are lower for youth facing systems of oppression, including racism and poverty (Wang et al., 2005). BIPOC youth are less likely to receive formal mental health services than their White peers (Cummings & Druss, 2011; Guo et al., 2015; Kearny et al., 2015; Narendorf et al., 2018; Nestor et al., 2016; Wang et al., 2005; Zimmerman, 2005). For instance, while 40% of White adolescents with depression receive treatment, only 32% of Black adolescents, 31% of Latinx adolescents, and 19% of Asian American adolescents with depression receive the same (Cummings & Druss, 2011). While BIPOC youth as a whole are less likely to receive formal support for psychological distress, the disparity in the receipt of formal mental health services is most pronounced for Asian American youth (Guo et al., 2015; Lipson et al., 2018). Source of formal support also varies by race, such that, while a majority of adolescents who access mental health services do so outside of school, BIPOC youth are more likely to access services only at school (Ali et al., 2019), pointing to ongoing inequities in access to non-school-based care. While less research has examined racial and ethnic differences in informal psychological help-seeking, some research suggests that there is less of a racial gap when seeking support from informal sources (Guo et al., 2015; Schonert-Reichl et al., 1995), however more research is needed. In college populations, Black students were more likely than their White peers to seek psychological support from religious sources (Ayalon & Young, 2005). Further research, and especially research that does not position White youth as the assumed default or reference group, is needed to understand racial and ethnic differences in patterns of help-seeking among adolescents.

Psychological help-seeking also varies by gender, with female youth seeking psychological support more often than male youth (Boldero & Fallon, 1995; Haavik et al., 2019; Kelly et al., 2007; Payne et al., 2008; Rickwood & Braithwaite, 1994; Rickwood et al., 2005; Rossow & Wichstrøm, 2010; Schonert-Reichl et al., 1995). A recent study found that this gender difference was particularly pronounced for formal help-seeking for depression (Wendt & Shafer, 2016). Female youth are also more likely to seek support from both informal and formal sources simultaneously, while male youth are more likely to rely on only informal sources of support or no support at all (Offer et al., 1991; Schonert-Reichl et al., 1995). The gender difference in informal psychological help-seeking is greatest for help-seeking from friends, with female youth being much more likely to seek support from friends than their male peers (Rickwood et al., 2005; Schonert-Reichl et al., 1995). Rickwood et al. (2005) reported differing developmental trends for male and female youth in regard to informal sources of psychological support. Over adolescence, female youth increasingly seek support from friends rather than parents and family; while male youth also show decreasing help-seeking from family, they do not compensate with increased help-seeking from friends (Rickwood et al., 2005). While there is significant literature documenting binary gender differences in psychological help-seeking and engagement in mental health services, there is little research examining how gender influences psychological help-seeking outside of the gender binary.

What is most clear from the literature is that youth, and especially BIPOC and male youth, in psychological distress do not receive the support that they need. Furthermore, how adolescent psychological help-seeking has or has not shifted in the context of the COVID-19 pandemic and the resultant higher rates of psychological distress are not known at this time. The

low rates of help-seeking, as well as the variations by race and gender are best conceptualized by turning to models of help-seeking in order to understand facilitators and barriers to help-seeking.

Pathways, Facilitators, and Barriers of Help-Seeking

While most models of help-seeking behavior focus on adult help-seeking (see Link et al., 2004), Barker (2007) integrated prior models to conceptualize adolescent help-seeking (see Figure 1). Barker's (2007) model describes the progression from an adolescent perceiving a problem and need for help to gaining motivation to seek help to engaging in help-seeking behavior, and finally assessing the utility and impact of the help-seeking attempt. While this model is not specific to psychological help-seeking, it provides a useful frame to understanding the internal and external factors that come into play when an adolescent asks for support. Particularly relevant to the current study are Barker's (2007) the emphasis on the role attitudes toward help-seeking, internalized gender norms, and perceptions of helpfulness of seeking support play in adolescent's help-seeking intention and behavior.

Knowledge of mental health and navigating mental health systems plays an important role in adolescent help-seeking. Both parent and adolescent recognition of a problem, as well as the understanding of a problem's impact and severity, have all been documented as important factors in the perception of a need for psychological help (Barker, 2007; Gulliver et al., 2010; Reardon et al., 2017; Yamasaki et al., 2016). Once an individual perceives a need for help, Barker's (2007) model highlights the knowledge of sources of help as an individual factor that influences both motivation and help-seeking behavior. In fact, poor knowledge of the help-seeking process is a common barrier cited in the literature (Gulliver et al., 2010; Reardon et al., 2017). Even if an adolescent is aware of sources of support, whether formal or informal, their motivation to seek help can still be impacted by other individual factors, including internalized

gender norms related to help-seeking (e.g., help-seeking is feminine), their previous experiences with seeking help (whether positive or negative), their ability to articulate their needs to a support source, their attitudes or stigma toward help-seeking, and their perceptions of the helpfulness of seeking support (Barker et al., 2007; Gulliver et al., 2010; Reardon et al., 2017; Rickwood et al., 2005).

There are also a range of external and systemic factors that influence adolescents' motivation and ability to seek help, particularly from formal sources. The inaccessibility of formal mental health care is a large deterrent to help-seeking. For instance, the cost of mental health services, lack of insurance coverage, and indirect costs (such as loss of wages and travel) are barriers to engaging in mental health care, especially among low SES populations (Reardon et al., 2017). The location of mental health services can also be barrier, for instance, if clinics are located far away or are not accessible by public transit systems (Barker et al., 2007; Reardon et al., 2017). Many mental health clinics also have long waitlists, meaning that months can pass between when an individual initially seeks help and when resources are available (Reardon et al., 2017). Even the knowledge of a long waitlist may discourage adolescents from reaching out if they know that help will not be available soon. School-based mental health services intend to address these accessibility barriers by providing care in a timely and convenient way (Kern et al., 2017). In practice, however, school-based mental health programs are often underfunded and unable to meet all of the mental health needs of students (Kern et al., 2017). These structural barriers can deter many adolescents from reaching out for formal support, especially outside of school systems, even if they believe that such support would be beneficial. It may be that the COVID-19 pandemic has presented further barriers to care, such as decreased access to school-based supports and increased waitlists due to increased mental health needs. Simultaneously,

with the transition to telehealth services, the pandemic may have reduced other structural barriers like scheduling, transportation, and even financial barriers, with many insurance companies waiving co-pays during the pandemic.

Parents also play a large role in formal psychological help-seeking during adolescence. While adolescents can seek informal support without the knowledge or consent of their parents, parental involvement and consent is often necessary for adolescents to receive formal mental health services. In fact, in many cases, only consent from a guardian is necessary to begin therapy, meaning that youth can be unwilling participants in their own therapy. However, the inverse is also true: adolescents who are interested in pursuing formal mental health services, but whose parents are not, may not be able to access these formal supports. Furthermore, if an adolescent is aware of their parents' or caregivers' views on formal mental health services, they may be deterred from even raising the issue with them. Instead, these youth may turn to other sources of support (such as school-based supports that do not require parental consent, friends, other informal sources, or helplines) or to no one at all.

Importantly, adolescents need to have trust and confidence in sources of support in order to be willing to seek help (Barker, 2007; Reardon et al., 2017). The low rates of formal psychological help-seeking among BIPOC adolescents can be partially attributed to the long-standing history of mistreatment of BIPOC by the healthcare system and a resultant mistrust of the mental healthcare system and its ability to care for the needs of BIPOC (Stanhope et al., 2005). The U.S. healthcare system, including the mental healthcare system, has a long history of racism and abuse of BIPOC (Poussaint & Alexander, 2000; Suite et al., 2007). A key example is the creation of a mental health disorder named drapetomania in the 1800s, which pathologized enslaved peoples' attempts to escape enslavement and fight back against their enslavers

(Poussaint & Alexander, 2000). While this specific diagnosis no longer exists, the structural racism that leads to the pathologization and invalidation of BIPOC, and especially Black Americans' distress, continues. Despite its intention as a healing profession, the mental healthcare system continues to do harm through the pathologization of culture, race, and ethnicity, lack of recognition of experiences of distress and trauma, clinician bias, and a lack of culturally responsive care (Suite et al., 2007). Black and African American populations report that mistrust of mental health providers, fomented by this history of mistreatment and ongoing experiences of microaggressions and oppression within the healthcare system, is a large contributor to low willingness to seek mental health services (Yang et al., 2014). As noted earlier, while schizophrenia is overdiagnosed among BIPOC, affective forms of psychological distress, including depression, are underdiagnosed, an example of the ongoing erasure of BIPOC individuals' experiences of pain and distress (Bhugra & Bhui, 1999; Suite et al., 2007).

A large component of the cultural mistrust of the mental healthcare system is a fear of clinician bias (Neighbors et al., 2003; Olbert et al., 2018; Whaley & Geller, 2007). While the U.S. population is roughly 60% White, as of 2016, 84% of the psychology workforce was White (American Psychological Association, 2018). The underrepresentation of BIPOC clinicians means that BIPOC are often not able to work with providers of similar backgrounds. However, research in adult populations demonstrates that many BIPOC individuals prefer clinicians who share cultural, racial, and/or ethnic identities with them (Lee et al., 2010; Townes et al., 2009). For instance, Asian and Asian American adults reported that providers who were also Asian were more culturally sensitive, while White providers demonstrated a lack of understanding of and respect for their background and values (Lee et al., 2010; Ngo-Metzger et al., 2004). Similarly, when working with a White counselor, BIPOC college students reported terminating

therapy prematurely more often than their White peers due to cultural mistrust (Townes et al., 2009). The long history of exploitation and mistreatment of BIPOC, and especially Black Americans, by the healthcare industry, and society more broadly, cultivated a modern-day mistrust of medical care settings and the White people within them (Terrell et al., 2009; Washington, 2006). While there is a myriad of barriers that contribute to the low rates of psychological help-seeking among youth, and especially BIPOC youth, this history of racism and ongoing cultural mistrust of the mental healthcare system cannot be ignored and points to the need for the mental healthcare system to become more culturally responsive and racially and ethnically diverse to adequately address the mental health needs of BIPOC youth.

Similarly, gender-based discrimination and transphobia within the healthcare system has fomented mistrust of mental healthcare providers among transgender and gender expansive individuals. Many transgender individuals have experienced discrimination and mistreatment in healthcare settings (e.g., Lambda Legal, 2010; Grant et al., 2011). In fact, fear of discrimination and harassment often deters transgender and gender expansive people from accessing necessary health care (White Hughto et al., 2016). Healthcare providers' lack of knowledge about the needs and concerns of transgender and gender expansive individuals further discourages these individuals from accessing health care (James et al., 2016). Trans and gender expansive people also face ongoing harm within the mental healthcare system, a prime example being the ongoing pathologization of gender identities outside of the gender binary. Mental healthcare providers do not receive adequate training on working with transgender and gender expansive populations, resulting in providers who are ignorant and/or transphobic (Powell & Cochran, 2020). In fact, providers' ignorance and insensitivity about the experiences of transgender and gender expansive individuals, as well as past experiences and fear of discrimination, are cited as

large barriers to psychological help-seeking among this population (Shipherd et al., 2010; Sperber, 2005). This literature again points to the need for the mental healthcare system to combat transphobia within the field and become more attuned and responsive to the needs of transgender and gender expansive individuals in order to adequately address the mental health needs of transgender and gender expansive youth.

This broad model of adolescent help-seeking provides a structure for understanding the wide range of factors that contribute to the low rate of formal psychological help-seeking among adolescents. At the same time, Barker's (2007) model encompasses all types of adolescent help-seeking, whether mental health related or not, and thus does not fully address a barrier specific to psychological help-seeking: mental health stigma. Within Barker's (2007) model, attitudes or stigma toward help-seeking can be conceptualized as an individual barrier that impacts both motivation and actual help-seeking behavior. While there are a wide range of factors that influence psychological help-seeking, as described herein, mental health stigma and stigma of psychological help-seeking appear to be key influences in adolescents' decisions to seek mental health services (Gulliver et al., 2010; Merikangas et al., 2011; Reardon et al., 2017; Rickwood et al., 2005; Yap et al., 2013).

Defining Mental Health Stigma

The modern construct of stigma is derived from the work of Goffman (1963), who conceptualized stigma as the "spoiling" of an identity or attribute through its social discrediting and rejection. Link and Phelan (2001) specify four components of stigma: (1) a difference is labeled; (2) the label is negatively valenced; (3) the difference separates "us" from "them"; and (4) the label and separation results in status loss and discrimination. Applying this definition, mental health stigma can be understood as (1) the labeling those in psychological distress as

different, (2) this difference being viewed negatively, (3) categorizing people as either “mentally ill” or not (rather than viewing psychological distress as a spectrum), and (4) viewing those experiencing psychological distress as ‘less than,’ thereby justifying discrimination against them. Common stigmatizing beliefs about mental health include that people with mental health needs are weak, bad, or dangerous. Research has identified several types of mental health stigma (Corrigan et al., 2014). Personal stigma is defined as the negative attitudes and beliefs one holds about people with mental health needs. Relatedly, self-stigma is holding such beliefs about one’s own mental health needs. Perceived stigma (also referred to as public stigma) is the negative attitudes and beliefs that one perceives others to hold about people with mental health needs. Finally, treatment stigma, or the stigma of psychological help-seeking, is the negative attitudes and beliefs about seeking mental health care. Although treatment stigma can be both personal (one’s own stigma of mental health care) or perceived (how one perceives others to stigmatize mental health care), most research on treatment stigma examines personal treatment stigma and there is less research on perceived treatment stigma. Mental health stigma is negatively associated with help-seeking intentions and behavior (Clement et al., 2015; Mojtabai et al., 2016a). Among the various types of stigma, treatment stigma stands out as most strongly negatively associated with intention to seek formal mental health care (Clement et al., 2015; Currier et al., 2017; Vogel et al., 2009a).

Despite the perceived benefit of seeking formal sources of mental health support, many youth prefer to cope on their own (Raviv et al., 2009). When presented with identical vignettes, either describing the mental health needs of friend or themselves, youth were more likely to recommend that a friend seek formal mental health care than to say they themselves would seek such support, suggesting discrepancies between youth’s personal stigma and self-stigma (Raviv

et al., 2009). That is, while youth may not greatly stigmatize peers for seeking formal mental health care, they do not believe they can do the same. In fact, higher levels of personal and self-stigma predict youth's belief that depression should be dealt with alone (Griffiths et al., 2011). While research shows that adolescents recognize mental health stigma as problematic, considerable research has also demonstrated that adolescents hold stigmatizing beliefs about mental health (Painter et al., 2017; Wahl et al., 2012). For instance, adolescents demonstrate high levels of separatism (i.e., an unwillingness to interact with individuals with diagnosable psychological distress) as the closeness of the interaction increases, such that while a majority of adolescents report that they are willing to talk with someone with diagnosable psychological distress, very few report that they would want to go on a date with them (Wahl et al., 2012).

Mental Health Stigma and Social Context: A Salient Concern in Adolescence

Help-seeking is, by definition, a behavior situated in a social context. Rickwood et al. (2005) describes help-seeking as “a process whereby the personal becomes increasingly interpersonal” (p. 225). Furthermore, mental health stigma is itself a socially defined construct; mental health cannot be stigmatized without social categorization and hierarchy. Whether an adolescent seeks help can ultimately be understood as a function of how their social network and community would or would not support such help-seeking behavior. Social support and encouragement from others are strong facilitators of formal psychological help-seeking (Gulliver et al., 2010; Rickwood et al., 2005). Conversely, perceived stigma and a lack of support from others can deter youth from seeking both informal and formal sources of psychological support (e.g., Nearchou et al., 2018). Adolescents' social networks are equally positioned to either facilitate or prevent psychological help-seeking, depending on the community norms (Barksdale & Molock, 2009; Cauce et al., 2002).

Perceived stigma is a significant barrier to formal mental health care among adolescents (Nearchou et al., 2018). Higher levels of perceived stigma are associated with lower intentions to seek help among adolescents with depression and anxiety, whereas lower levels of perceived stigma were associated with higher intentions of seeking formal support (Calear et al., 2021; Griffiths et al., 2011; Nearchou et al., 2018). In college samples, the relationship between perceived campus attitudes towards psychological help-seeking (a measure of perceived peer stigma) and help-seeking intentions was mediated by personal attitudes towards psychological help-seeking (Chen et al., 2016).

Importantly, adolescents perceive significantly higher levels of mental health stigma than adults. Among adolescents diagnosed with mental disorders, most perceive significant stigma from their peers, family, and adults/personnel in their school environments (Moses, 2010b), with nearly two thirds (62.5%) reporting moderate to substantial stigma from peers, almost half (46.4%) reporting moderate to substantial stigma from family members, and roughly a third (34.8%) reporting moderate substantial stigma from school personnel (Moses, 2010b). These rates of perceived mental health stigma in adolescent populations are significantly higher than in adult populations, suggesting that perceived stigma may be a larger barrier to psychological help-seeking for adolescents than it is for adults (Wahl, 1999). Indeed, adolescents' perceptions of public stigma are a stronger predictor of help-seeking intentions than personal stigma (Nearchou et al., 2018). This is the inverse of what is found in adult populations; in fact, in a college sample perceived stigma did not predict help-seeking above and beyond personal stigma (e.g., Eisenberg et al., 2009). This suggests that there are unique developmental reasons for the increased impact of perceived stigma during adolescence.

The developmental changes of adolescence make mental health stigma a particularly salient issue during these years. As youth enter the developmental stage of adolescence, peer relationships become increasingly complex and important (Brown, 2004). Adolescents not only spend more time with peers, but these relationships also shift to include talking about personal topics, such as secrets, worries, and ambitions (Brown, 2004). These shifts in the importance and content of peer relationships mean that adolescents' perception of their peers' attitudes may more strongly impact psychological help-seeking than it would earlier in childhood. Predictably, peer influence increases drastically in adolescence and youth can be easily affected by close friends, cliques, and even larger peer groups (Brown & Klute, 2006; Prinstein & Dodge, 2008). Although peer influence spikes in early adolescence, the resistance to this influence is delayed, making early adolescence a period of susceptibility to perceived peer stigma (Steinberg & Monahan, 2007).

Adolescents' progression into Piaget's final developmental stage, formal operations, gives rise to youth's ability to think logically about abstract concepts, including their own thoughts (Piaget & Inhelder, 1962). As such, early adolescents come to realize not only that their own private and public self differ, but also that others' private and public selves differ (Davies, 2004; Harter, 1999). As metacognition increases, early adolescents also experience a spike in self-consciousness and come to heavily overestimate the frequency that others think about them (Elkind, 1985). This "imaginary audience" (Elkind, 1985) may be especially relevant to understanding mental health stigma in adolescence. Specifically, adolescents are both aware of mental health stigma and of others' ability to think about and judge them, which may prove an ideal environment for the growth of mental health stigma. The fear that others are constantly watching may both deter adolescents psychological help-seeking for themselves, due to fear of

falling down the social hierarchy, as well as support-giving to peers who are struggling due to fear of judgment by association.

Molock et al. (2007) proposed a culturally contextualized model of adolescent and young adult mental health help-seeking behavior that describes the impact of perceived norms around help-seeking from various social groups (e.g., peers, family, church) among African American adolescents (see Figure 2). Molock et al. (2007) assert that adolescents' perceptions of their family norms around psychological help-seeking and their perceptions of peer norms around psychological help-seeking, combined with their own stigma about help-seeking, influences problem recognition, perceived need, and the decision to seek help, ultimately predicting help-seeking behavior. While most research on perceived stigma has examined the construct globally (i.e., perceived stigma from the general public) or from peers (e.g., perceived campus stigma among college populations), it is important to consider the unique role that perceived stigma from parents plays in adolescent psychological help-seeking.

Perceptions of Support and Stigma from Parents

Recent qualitative work suggests that while youth continue to experience stigma from many sources, including peers, adults play a unique role in perpetuating stigma due to their gatekeeping roles (Austin et al., 2022). Parents in particular are positioned as gatekeepers of formal mental health services for children and adolescents. When parents hold positive attitudes toward mental health services, they can be a "gateway provider" for their child (as described by the Gateway Provider Model, Stiffman et al., 2004). Inversely, when parents hold stigmatizing beliefs about mental health and mental healthcare, they can gatekeep access to care. In fact, higher levels of parent-reported personal stigma (i.e., parents' personal attitudes and beliefs about individuals in psychological distress) were associated with poorer recognition of

psychological distress in their own children (Villatoro et al., 2018). Similarly, parents' personal and perceived stigma influences formal help-seeking behavior for their children (Dempster et al., 2013; Gronholm et al., 2015; Logan & King, 2001; Turner et al., 2020). Although youth seek informal psychological support from a range of sources, parents are more influential in adolescents accessing formal mental health services than other sources of informal support (Wahlin & Deane, 2012).

Parents' mental health stigma influences youth's personal and self-stigma. It is unsurprising that children's and adolescents' attitudes and beliefs about a range of topics are influenced by parents' attitudes and beliefs (e.g., Zenter & Renaud, 2007). Mental health stigma is no exception. For instance, youth had higher levels of self-stigma when their parents reported being more likely to hide or conceal their child's mental health needs (Moses, 2010a). Similarly, parent-reported personal stigma predicted self-stigma among emerging adults, suggesting that, by college, youth have internalized the stigma (or lack thereof) they perceive in their parents (Ross et al., 2020). The impact of antistigma interventions directed at youth even varies by parents'/caregivers' mental health stigma, such that youth whose parents have higher levels of mental health stigma do not benefit to the degree of youth whose parents report low levels of mental health stigma (Ojio et al., 2020). It is clear that parents' stigma shapes adolescents' stigma.

Perceptions of parents' mental health stigma also impact youth's help-seeking behavior. Many adolescents report that not wanting their parents to know is a major barrier to seeking formal mental health services (Austin et al., 2022; Samargia et al., 2006). Similarly, youth receiving minimizing messages about mental health throughout their childhood predicts more negative attitudes toward help-seeking in emerging adulthood (Greenwell, 2019). In fact, one

study found that, among Black college students, perceived stigma from family was the strongest predictor of help-seeking intentions, above and beyond perceived peer stigma (Barksdale & Molock, 2009). While perceived stigma from a variety of sources can influence adolescents' own stigma, it seems that perceived family stigma, and especially perceived parental stigma, may play a key role in the relationships between personal attitudes toward help-seeking and actual help-seeking behavior.

Identity and Mental Health Stigma

Substantial literature has documented that mental health stigma varies by racial and ethnic identity (Yang et al., 2014). For instance, quantitative research suggests that Asian American, Latinx American, and Black/African American populations report higher levels of mental health stigma than White populations (Calvo, 2016; Eisenberg et al., 2009; Han et al., 2017; Masuda et al., 2009; Masuda et al., 2012; Nash et al., 2017; Pederson & Paves, 2014; Vargas et al., 2015; Wang et al., 2019). While a range of factors related to access influence disparities in mental health service use, this section focuses specifically on the role of mental health stigma. As previously noted, historical and ongoing oppression within the healthcare system and resultant mistrust of the mental healthcare system cannot be separated from stigma itself.

Qualitative explorations have expanded on this quantitative research to better understand the cultural factors that may influence varying level of mental health stigma among different racial and ethnic and cultural groups. Asian American youth note culturally relevant barriers to help-seeking such as loss of face and strong feelings of family obligation (Gee et al., 2020; Guo et al., 2015; Yang et al., 2014). These cultural values may foment increased mental health stigma as attending therapy could negatively impact both individual and family image and identity

(David, 2010). Generational status also seems to play an important role in Asian American youth's mental health stigma, with second-generation Asian American youth holding more negative beliefs about psychological help-seeking than third-generation youth, likely due to differing levels of acculturation and integration of bicultural identities (Abe-Kim et al., 2007). Among Latinx American populations, psychological help-seeking behavior may also conflict with cultural values of working hard and independent problem solving, leading to stronger perceptions of psychological help-seeking as weak or bad among Latinx youth (Yang et al., 2014). Among Black and African American populations, cultural values such as strength through spirituality and self- and familial reliance may discourage and contribute to stigmatizing beliefs about formal psychological help-seeking (Yang et al., 2014).

While cultural factors may play a role in the varying levels of mental health stigma among different racial groups, it is also important to consider how ongoing racial oppression and racial stereotypes contribute to BIPOC youth and their families' reluctance to seek formal sources of psychological support. BIPOC youth, and especially Black youth, already carry a stigmatized racial identity. Seeking formal psychological support is not just a matter of accepting outside support, but rather requires BIPOC youth to take on another stigmatized label (in this case, the label of "mental illness" or "mental disorder"), which will likely increase their experience of marginalization and "othering." Indeed, in one study, African American adolescent boys were highly wary of discussing mental health needs outside of their family, for fear of judgement and social consequences (Lindsey et al., 2010).

Similarly, healthcare stereotype threat may play a role in BIPOC youth's hesitance to engage in formal help-seeking. Stereotype threat is the "socially premised psychological threat that arises when one is in a situation or doing something for which a negative stereotype about

one's group applies" (Steele & Aronson, 1995). While little studied in the context of mental health, healthcare stereotype threat may be another contributor to lower rates of formal mental health care use among BIPOC youth. Specifically, BIPOC youth and their families may avoid seeking formal mental health services for fear of being reduced to a racist group stereotype or their distress being used as evidence to confirm racist stereotypes about their racial/ethnic group (Abdou, et al., 2016).

Taking on a stigmatized label may also come into conflict with internalization of the "Strong Black Woman" schema, as described by Beauoeuf-Lafontant (2009). The "Strong Black Woman" schema is a gendered-racial stereotype that describes Black women as supernaturally resilient women who care and support others, often at the cost of their own well-being (Abrams et al., 2014; Beauoeuf-Lafontant, 2009; Woods-Giscombé, 2010). Although a seeming compliment, this racist stereotype is rooted in the conflation of Black women's identities with caretaking and discourages Black women's own help-seeking. Black girls who internalize this stereotype may be reticent to seek support or share experiences of distress as this would come into conflict with their conceptualization of resiliency and strength and, by extension, the intersection of their racial and gender identities.

A similar phenomenon may occur with the model minority myth among Asian American youth. The model minority myth is a racist stereotype that Asian Americans are "successful" minorities who succeed academically and occupationally, and therefore serve as a "model" for other BIPOC (Museus & Kiang, 2009). Not only does this myth serve to uphold White supremacy by victim blaming non-Asian BIPOC communities for their oppression, but it also harms Asian Americans' psychological wellbeing and ability to seek psychological support. Much like the White seemingly a "positive" stereotype, the model minority myth does not leave

room for struggle, distress, and asking for help. Furthermore, the myth encourages Asian American youth to see their Asian American identity as intrinsically linked to fitting into the model minority stereotype. When youth internalize the model minority myth, admitting struggle, distress, or a need for help comes into conflict with this myth of perfection and unparalleled success, and by extension, their racial identity (Kim & Lee, 2014).

Mental health stigma also varies by gender, such that male youth consistently report higher levels of personal and self-stigma than their female peers (Calear et al., 2017; Chandra & Minkovitz, 2006; Eisenberg et al., 2009; Lynch et al., 2021; Mackenzie et al., 2006; Pederson & Paves, 2014). The literature on perceived stigma is mixed, with some sources indicating higher levels of perceived stigma in male youth (Barksdale & Molock, 2009; Chandra & Minkovitz, 2006) and others indicating higher levels of perceived stigma in female youth (Lynch et al., 2021). While female adolescents report fewer reservations about seeking formal mental health care (Raviv et al., 2009), male youth report mental health stigma as a larger barrier to help-seeking than their female peers (Clark et al., 2018; Mackenzie et al., 2006). Gender differences in mental health stigma are often conceptualized as stemming from gender role socialization (Grinstein-Weiss et al., 2005). Recent research examining gender norms among adolescent male youth with anxiety supports this conceptualization, as adherence to hegemonic masculinity influenced mental health stigma and help-seeking (Clark et al., 2020). In particular, masculine gender norms of stoicism, anti-femininity, toughness, and emotional control have been associated with higher levels of mental health stigma and lower likelihood of seeking informal and formal sources of support (Judd et al., 2008; Scott et al., 2015; Sileo & Kershaw, 2020; Vogel et al., 2006b).

Summary and Gaps of the Literature

Significant research has documented alarmingly high rates of psychological distress among adolescents (Merikangas et al., 2010). However, few youth seek formal mental health care (Merikangas et al., 2011), and rates of service utilization are even lower among BIPOC youth (Wang et al., 2005). Although a range of factors have been found to impact psychological help-seeking among adolescents, including structural barriers like cost and location of services and structural racism in mental health care systems, mental health stigma, and in particular treatment stigma (Clement et al., 2015), has consistently been identified as a significant barrier to help-seeking in adolescence (Gulliver et al., 2010; Merikangas et al., 2011; Reardon et al., 2017; Rickwood et al., 2005). However, gaps in the literature point to a need for further research to understand how perceptions of treatment stigma from specific sources relate to personal treatment stigma and psychological help-seeking.

While there is a wealth of research examining the construct of psychological help-seeking, many studies measure help-seeking intentions rather than actual help-seeking behavior. However, an intention to seek help does not guarantee actual help-seeking. In fact, one study even found a relatively weak relationship between reported help-seeking intentions and actual help-seeking behavior among high school students (Rickwood et al., 2005), highlighting the need for research that measures psychological help-seeking behavior. Additionally, when examining perceived stigma, the literature to date has focused on broader mental health stigma (i.e., negative attitudes and beliefs about people with mental health needs). However, given that treatment stigma has been found to be the strongest stigma predictor of help-seeking (Clement et al., 2015), perceptions of treatment stigma may prove to have stronger associations with help-seeking than perceptions of general mental health stigma. Moreover, existing research has

examined perceived stigma more globally (i.e., perceived stigma from the general public or from everyone in their environment), rather than differentiating perceived stigma from different sources. Examining perceived stigma from different sources is especially important in adolescence as recent qualitative literature suggests a differential impact of perceptions of stigma from parents rather than from peers (Austin et al., 2022). Furthermore, while a few studies have examined the relationship of perceived and personal mental health stigma to psychological help-seeking intentions, no study to date has examined how these constructs relate to each other and in particular how personal treatment stigma may account for the relationship between perceived treatment stigma and psychological help-seeking behavior. Finally, more research is needed to provide a fuller picture of how personal and perceived treatment stigma from parents and peers and psychological help-seeking vary by demographics, including building on previous literature broadly demonstrating variations based on race and gender, as well as exploring how these constructs may differ for nonbinary individuals and over the course of adolescence. Given the large impact that psychological distress in adolescence can have on developmental trajectories and long-term outcomes, more research is needed to understand the influence of personal and perceived treatment stigma on help-seeking during this developmental stage.

Current Study

The current study aims to explore associations between personal and perceived treatment stigma and psychological help-seeking behavior among adolescents in the context of the COVID-19 pandemic. Building on previous research, this study will examine models of formal and informal psychological help-seeking to better understand help-seeking barriers in adolescence. Specifically, this study will investigate how perceptions of treatment stigma from parents and peers may influence adolescents' own treatment stigma and how personal treatment

stigma may, in turn, influence psychological help-seeking behavior. In order to investigate these research questions, data will be drawn from a survey administered in the fall of 2020 to middle and high school students in the greater Boston area. Analyses will examine how these constructs relate to each other and, in particular, how personal treatment stigma may account for the relationship between perceived treatment stigma and psychological help-seeking behavior. We intend to first explore how personal treatment stigma is related to psychological help-seeking, and then to examine how perceived parental treatment stigma and perceived peer treatment stigma may have indirect effects on this association. Analyses will also be conducted to examine whether psychological help-seeking and the various stigma constructs vary by demographic factors including race, gender, and grade in school (as a proxy for age).

Hypotheses

1. Drawing from prior literature, models of informal and formal psychological help-seeking are proposed (see Figure 3 and Figure 4).
 - a. Based on prior literature examining the associations between perceived and personal stigma, it is hypothesized that both perceived peer treatment stigma and perceived parental treatment stigma will be positively associated with personal treatment stigma.
 - b. Based on prior research, it is expected that personal treatment stigma will be negatively associated with informal and formal psychological help-seeking, such that higher personal treatment stigma will predict lower levels of help-seeking.
 - c. Building on previous research on the relationship between perceived stigma, personal stigma, and attitudes toward psychological help-seeking, it is hypothesized that both the association between perceived peer treatment stigma

and informal psychological help-seeking and the association between perceived parental treatment stigma and informal psychological help-seeking will be partially mediated through personal treatment stigma (see Figure 3). Given that peers and parents are frequent sources of informal support, partial mediation, rather than full mediation, is expected.

- d. A similar mediational model is hypothesized for formal psychological help-seeking (see Figure 4). Given that peers are not a source of formal support and do not impact adolescents' ability to access formal support, it is hypothesized that the association between perceived peer treatment stigma and formal psychological help-seeking will be fully mediated through personal treatment stigma. However, considering the large role parents play in formal psychological help-seeking, it is hypothesized that the association between perceived parental treatment stigma and formal psychological help-seeking behavior will be partially mediated through personal stigma.
2. Based on prior literature, it is hypothesized that help-seeking behaviors will vary by race, gender, and grade.
 - a. Specifically, based on prior literature, it is hypothesized that White youth will report higher overall levels of help-seeking behaviors than BIPOC youth. When broken down into formal and informal help-seeking, it is hypothesized that White youth will report higher levels of formal psychological help-seeking than BIPOC youth, with Asian American youth reporting the lowest levels of formal psychological help-seeking.

- b. Drawing on literature suggesting racial and ethnic differences in location of formal psychological help-seeking, it is hypothesized that BIPOC youth will be more likely to report school-based sources of formal psychological support whereas White youth will be more likely to report non-school-based sources of formal psychological support. Exploratory analyses will be conducted to examine more nuanced variations in service location by race.
- c. Considering previous research highlighting gender differences in help-seeking, it is hypothesized that cisgender female youth will report higher levels of overall help-seeking, formal help-seeking, and informal help-seeking than cisgender male youth. Additionally, it is expected that cisgender female youth will be more likely to seek both informal and formal support, whereas cisgender male youth will be more likely to seek only informal support or no support. Additional exploratory analyses will be conducted to examine gender differences in help-seeking behaviors beyond the gender binary.
- d. Based on previous research suggesting changes in sources of support throughout adolescence, it is hypothesized that grade (as a proxy for age) will be positively associated with help-seeking from peers, but negatively associated with help-seeking from parents. Similarly, based on literature suggesting a relationship between age and use of mental health services, it is hypothesized that grade (as a proxy for age) will be positively associated with formal psychological help-seeking. Exploratory analyses will examine differences in informal psychological help-seeking by grade.

3. Based on previous research, it is expected that personal treatment stigma, perceived parental treatment stigma, and perceived peer treatment stigma will vary by grade, gender, and race.
 - a. Based on prior literature, it is hypothesized that BIPOC youth will report higher levels of personal treatment stigma than White youth. Exploratory analyses will be conducted to examine more nuanced variations by race in personal treatment stigma as well as variations in perceived stigma by race.
 - b. Based on previous research, it is expected that cisgender male youth will report higher levels of personal treatment stigma and perceived peer and parental treatment stigma than cisgender female youth. Exploratory analyses will be conducted to examine gender differences outside of the gender binary.
 - c. Based on developmental theory and previous research on changes in peer influence over adolescence, it is hypothesized that grade (as a proxy for age) will be negatively associated with perceived peer treatment stigma, such that younger adolescents will report higher levels of perceived peer treatment stigma. Exploratory analyses will be conducted to examine variations in personal treatment stigma and perceived parental treatment stigma by grade.

Method

Procedures

The current study used data from a larger longitudinal study on substance use in adolescence, in partnership with the Center for Addiction Medicine at Mass General Hospital. Specifically, measures for the current study were imbedded in an annual screening survey examining adolescent mental health and substance use. Surveys were administered to middle and

high school students (6th to 12th grade) in early to mid-fall, with the specific date for the school population to be screened coordinated on a school-by-school basis. An opt-out process was used with a minimum of three weeks between mailing information to students' families and the screening day. The letter, containing information about the screening survey and the opportunity to opt-out, was sent to students' families through two different platforms (e.g., email, newsletter blast, portal, etc.). In the letter, parents were informed that if they would like to opt their child out, they must email their child's information to an email address provided by a certain date that is prior to the screening day. All students whose parents did not opt them out of the survey were then administered the survey on the school screening day.

Surveys were administered online in the fall semester of 2020 while schools were engaged in virtual learning due to the COVID-19 pandemic. Specifically, surveys were administered at six public schools from three school districts in the greater Boston area. 0.8% of students were opted out of the school-wide screener, resulting in 99.2% of students being administered the survey.

School/District Demographics. Six schools participated from three school districts: one school from District A, three schools from District B, and two schools from District C. In order to contextualize findings, data on student and staff race/ethnicity is provided, aggregated by school district (see Table 1). Of note, although BIPOC students comprised a significant portion of students in these three districts (especially in districts B and C), school staff were over 95% White in all three districts. Additionally, one school participated the Metropolitan Council for Education Opportunity (METCO) program in the 2020-2021 school year. The METCO program is a state-funded initiative that was created to eliminate racial imbalance in Massachusetts schools by enrolling students of color from Boston in predominantly white, suburban school

districts. The METCO program is a voluntary school desegregation program founded in 1966 as a result of the passing of the Racial Imbalance Act. Today, the METCO program is open to all children who reside in Boston who volunteer to participate. Students who have completed applications are selected by lottery, based on the number of slots available in each grade. METCO students are then assigned at random to a suburban district and either travel by bus or by parents' transportation to get between their Boston home and their school.

Measures

This section provides an overview of the measures included in the current study. Appendix 1 includes full scales for all relevant measures in the current study.

Demographics

Grade. Participants indicated which grade they were in using a checkbox format with options from 6th to 12th grade.

Gender. Participants were asked "What best describes your gender?" and were given options of: "Female," "Male," "Transgender Female (male to female)," "Transgender Male (female to male)," and "Nonbinary." For purposes of analyses, these five categories were re-coded into three: cisgender female, cisgender male, and transgender and nonbinary youth. However, all five categories were used in descriptive statistics.

Race. Participants were asked about their race and ethnicity separately. Participants were asked "What is your race (check one)?" and given the following options: "White," "Haitian, Black or African American," "Asian," "Hawaiian or Other Pacific Islander," "American Indian/Alaska Native," "More than One Race," or "Other." Hispanic/Latinx identity was assessed by asking "What is your ethnicity?" with two options: "Not Hispanic or Latino" and "Hispanic or Latino." For purposes of the current study, data from the separate race and ethnicity

questions were used to recode participants racial identity into the following groups: Afro-Latinx, Asian/Asian American, Black/African American (Non-Latinx), Hawaiian/Pacific Islander, Indigenous/Native American, Latinx/Hispanic, West Asian/North African, White, Multiracial, and Other. These 10 categories were used for descriptive statistics. For purposes of analyses, participants were recoded into five larger racial/ethnic identity categories: Black/African American, Asian American and Pacific Islander (AAPI), Latinx/Hispanic, Multiracial/Other, and White.

Psychological Distress

Psychological distress was assessed using an adapted version of the Impacts of the COVID-19 Outbreak on You scale from the Environmental Influences on Child Health Outcomes (ECHO) COVID-19 Questionnaire. The adapted version included nine items assessing participants' thoughts and feelings throughout the pandemic (e.g., "Since becoming aware of the COVID-19 (Coronavirus) outbreak..."). Depending on the school's exact survey administration date, this inquired about distress in the past six or more months. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) confirmed the presence of two factors: general psychological distress and COVID-related psychological distress. These analyses are described further in the results section.

General Psychological Distress. General psychological distress was assessed with six items that inquired about participants' thoughts and feelings throughout the COVID-19 pandemic (e.g., "Felt sad, down, or blue" and "Felt anxious or 'on edge'"). Items were rated on a 5-point Likert-type scale from 1 "Never" to 5 "Very Often." A total score was calculated by averaging the item responses ($\alpha = .87$).

COVID-Related Psychological Distress. Psychological distress specifically related to the COVID-19 pandemic was three items assessing participants' thoughts and feelings about COVID-19 throughout the pandemic (e.g., "how often have you had distressing dreams about COVID-19"). Items were rated on a 5-point Likert-type scale from 1 "Never" to 5 "Very Often." A total score was calculated by averaging the item responses ($\alpha = .66$).

Treatment Stigma

Personal Treatment Stigma. Personal treatment stigma was assessed using an adapted version of the 10-item Self-Stigma of Seeking Help (SSOSH) scale (Vogel et al., 2006a). Specifically, language of items was adapted to be an appropriate reading level for the youngest participants of the current study (6th grade students), given that the scale was initially created for a higher reading level. Participants responded to items inquiring about how they would feel about seeking mental health support (e.g., "I would feel like I wasn't good enough if I went to a therapist for help with my mental health (my feelings, mood, or behavior).") on a five-point Likert-type scale from 1 "Strongly disagree" to 5 "Strongly agree." A total score was calculated by averaging the item responses ($\alpha = .80$).

Perceived Parental Treatment Stigma. Perceived parental treatment stigma was assessed using an adapted version of the five-item Perceptions of Stigmatization by Others for Seeking Help (PROSH) scale (Vogel et al., 2009b). Specifically, item language was adapted to be appropriate for the age range of participants. Additionally, the language of the prompt was adapted to be specific to parents/caregivers, substituting "parents/caregivers" for "people you interact with." Participants were asked how they thought their parents/caregivers would respond if they wanted to pursue mental health services. They rated items (e.g., "Think of you in a less

positive way) on a five-point Likert-type scale from 1 “Not at all” to 5 “Extremely.” A total score was calculated by averaging the item responses ($\alpha = .87$).

Perceived Peer Treatment Stigma. Perceived peer treatment stigma was also assessed using an adapted version of the PROSH scale (Vogel et al., 2009b), substituting “peers (friends, classmates, other people you know your own age)” for “people you interact with.” Participants were asked how they thought their peers would respond if they received mental health services. Items (e.g., “Think something was seriously wrong with you”) were rated on a five-point Likert-type scale from 1 “Not at all” to 5 “Extremely.” A total score was calculated by averaging the item responses ($\alpha = .89$).

Psychological Help-Seeking

Participants’ help-seeking behavior was assessed using an adapted version of the Actual Help Seeking Questionnaire (AHSQ; Rickwood et al., 2005). Response options were adapted to best suit the developmental age and supports sources of respondents, collapsing some higher levels of care into a single checkbox and breaking apart some other sources of support.

Participants were asked: “Which of the following people have you talked with about your mental or emotional health (for example, your feelings, mood, or behavior) in the past year?”

Participants indicated all sources of psychological support from the following options: parent or caregiver, other relative/family member, friend or romantic partner, teacher/coach/school administrative staff (e.g., parent, vice principal, dean), school counselor, mental health professional outside of school (e.g., psychologist, social worker, counselor), pediatrician, minister or religious leader (e.g., Priest, Rabbi, Chaplain), phone/text helpline (e.g., Lifeline), online/social media support group, emergency room, inpatient or residential services, substance use detox or rehab center, other, and no one. The following categorical variables were created

from participants' checkbox answers: (1) a binary (yes/no) help-seeking variable for whether participants sought psychological support from any source over the past year, (2) a binary (yes/no) informal help-seeking variable, (3) a binary (yes/no) formal help-seeking variable, (4) a binary (yes/no) school-based formal psychological help-seeking variable, (5) a binary (yes/no) non-school-based formal psychological help-seeking variable, and (6) a categorical variable with four options (formal support only/informal support only/both/neither). Formal sources of support are defined as the following options: school counselor, mental health professional outside of school, pediatrician, emergency room, inpatient or residential services, and substance use detox or rehab center. All other sources of support are categorized as informal. Individual sources of support (peers and parents) were also used for selected analyses.

Analysis

Data management and descriptive statistics were conducted in SPSS version 25.0. Normality was assessed using skew and kurtosis. Structural equation modeling (SEM) was then conducted using Mplus version 8.2, while Chi-square tests, logistic regressions, and ANOVAs were conducted in SPSS version 25.0.

Hypothesis 1:

Structural equation modeling (SEM) with latent variables was employed to examine the associations between personal treatment stigma, perceived parental treatment stigma, perceived peer treatment stigma, and psychological help-seeking behaviors among participants. Model fit was assessed using a range of criteria, including comparative fit index (CFI; Bentler, 1990), Tucker-Lewis Index (TLI; Tucker & Lewis, 1973), root mean square errors of approximation (RMSEA; Steiger, 1990), and standardized root-mean-square residual (SRMR; Chen, 2007). Two separate mediational models were conducted to examine the indirect effects of perceived

parental treatment stigma and perceived peer treatment stigma on the associations between personal treatment stigma and psychological help-seeking. One model examined these indirect effects on informal help-seeking while the other examined these indirect effects on formal help-seeking. Demographic variables including race (dummy-coded into five categories: Black/African American, AAPI, Latinx/Hispanic, Multiracial/Other, and White; see above), gender (dummy-coded into three categories: cisgender female, cisgender male, and transgender and nonbinary youth; see above), and grade. Latent variables of general psychological distress and, to account for the unique context of data collection occurring during the COVID-19 pandemic, COVID-related psychological distress, were included in models as covariates. Given the nesting of data in schools, design-based modeling was used. Design-based models are used when the relationship of variables within clusters (i.e., schools) are not of interest. This approach accounts for sampling design as opposed to modeling the sampling design (Stapleton & Kang, 2016). Missing data was managed using weighted least squares mean and variance adjusted estimation (WLSMV). This was the chosen estimator given that it is robust to non-normality when doing complex modeling, which is necessary given the use of categorical outcomes and clustered data.

Beta coefficients for direct effects were interpreted based on Acock (2014): $\beta < .2$ is small, $.2 \leq \beta < .5$ is medium, and $\beta \geq .5$ is large. Odds ratios were interpreted based on Chen et al. (2010): $OR < 1.68$ is very small, $OR < 3.47$ is small, $3.47 \leq OR < 6.71$ is medium, and $OR \geq 6.71$ is large. Since there is no consensus of effect size indicators for mediation in complex models (Preacher & Kelley, 2011; Wen & Fan, 2015; Wen et al., 2016), effect sizes for mediation are not reported.

Hypothesis 2:

A series of chi-square tests and logistic regressions were conducted to understand the association between demographic variables (race, gender, and grade) and help-seeking behaviors. Specifically, chi-square analyses were utilized to compare the likelihood of participants with different racial identities having sought psychological support. Importantly, all racial identities were compared, and “White” was not used as the assumed reference condition. Similarly, chi-square analyses were used to compare the likelihood of participants with different gender identities having sought psychological support. Post-hoc analyses for chi-square tests used the approach described by Beasley and Schumacker (1995) to compute adjusted standardized residuals, individual p values, and adjusted p value cutoffs to control the Type 1 error rate. For race comparisons, the adjusted p value was 0.010, whereas for gender comparisons, the adjusted p value was .017. Finally, logistic regressions were used to examine how grade is associated with psychological help-seeking behavior.

Differences in overall help-seeking, formal help-seeking, and informal help-seeking were examined for all three demographic variables. Other analyses were run only for certain demographic variables, based on specific hypotheses drawing from the literature, in order to reduce the possibility of Type 1 errors. Specifically, differences in school-based and non-school-based formal psychological supports by race were examined, differences in the types of support participants access (formal only, informal only, both, neither) by gender were examined, and differences in supports from peers and parents by grade were examined.

Hypothesis 3:

A series of analyses of variance (ANOVAs) and linear regressions were used to understand the association with identity variables and personal and perceived treatment stigma.

Specifically, ANOVAs were conducted to compare personal and perceived treatment stigma by race and gender. As in the analysis of Hypothesis 2, when the predictor variable was categorical (race and gender), all groups were compared rather than using a single group as the reference condition. Although sample sizes for gender analyses greatly differed (i.e., sample of transgender and nonbinary youth was much smaller than the samples of cisgender male and cisgender female youth), variances across groups were adequately similar, allowing for continued use of this analytical approach. Linear regressions were conducted to examine the association between grade and personal and perceived treatment stigma.

Results

Descriptive Statistics

Demographic Description of Sample

The final analytical sample included 3,248 youth participants who were in the 6th through 12th grade. Approximately 51.2% of the sample were cisgender female, 46.4% were cisgender male, and 1.9% were transgender or nonbinary (0.5% missing data). The majority of the sample identified as non-Hispanic White (63.7%), while 3.9% identified as non-Hispanic Black/African American, 18.3% identified as Asian American/Pacific Islander, 4.7% identified as Latinx/Hispanic, and 8.9% identified as Multiracial or Other racial categories (0.5% missing data). See Table 2 for a more detailed description of the sample.

Psychological Help-Seeking in the Sample

The majority of the sample (82.5%; $n = 2,678$) endorsed seeking psychological support from at least one source over the past year. On average, participants endorsed 2.28 ($SD = 1.80$) sources of psychological support over the past year. Informal help-seeking was common in the sample, with 81.6% of participants endorsing help-seeking from an informal source of support

over the past year. Formal help-seeking (help-seeking from school counselor, mental health professional outside of school, pediatrician, emergency room, inpatient or residential services, or substance use detox or rehab center), while less common, was still endorsed by roughly a third of participants (32.5%) (See Table 3). Parents and caregivers were the most common source of support (68.0%), followed by friends and romantic partners (52.9%). Other sources of support endorsed included other relatives/family members (33.4%), teacher/coach/school administration staff (10.2%), school counselor (16.9%), mental health professional outside of school (15.1%), and pediatrician (16.6%). See Table 4 for full description.

When broken into four categories of help-seeking (informal help-seeking only, formal help-seeking only, both informal and formal help-seeking, and no help-seeking), the majority of participants either sought only informal support (49.9%) or both formal and informal support (31.7%). Very few participants sought only formal support (0.8%). While the majority of participants endorsed psychological help-seeking over the year, a significant minority (16.0%) fell into the fourth category of no psychological help-seeking.

Hypothesis 1

Preliminary Analyses

Based on Brown's (2006) guidelines for normality in SEM, all continuous variables in the models had acceptable skew (between -3 and +3) and kurtosis (between -10 and +10) values. Exploratory factor analyses (EFA) and confirmatory factor analyses (CFA) were employed to confirm the structure of all scales included in the models: personal treatment stigma, perceived parental treatment stigma, perceived peer treatment stigma, and psychological distress. EFAs followed Kaiser-Guttman retention criterion of eigenvalue greater than 1 (Kaiser, 1974).

Examining the factor structure of personal treatment stigma. Findings of the EFA supported either a one- or two-factor solution. However, the two-factor solution was evenly split between reverse coded and non-reverse coded items, a measurement effect rather than evidence of subconstructs within the scale. Based on the theoretical understanding that personal treatment stigma is a single construct, the one-factor solution was retained. CFA was then conducted to assess how well the measured items represent the construct of personal treatment stigma. Using CFA, the one-factor model of personal treatment stigma showed good fit to the data ($\chi^2(27, N = 3,125) = 301.09, p < .001, CFI = .97, RMSEA = .06$ (90% CI: .051 to .063), $SRMR = .03$).

Examining the factor structure of perceived parental treatment stigma. Findings of the EFA supported one-factor solution. All five items were retained, with standardized factor loadings ranging from 0.60 to 0.91. CFA was then conducted to assess how well the measured items represent the construct of perceived parental treatment stigma. Using CFA, the one-factor model of perceived parental treatment stigma showed good fit to the data ($\chi^2(1, N = 3,137) = 6.83, p = .009, CFI = .99, RMSEA = .04$ (90% CI: .017 to .076), $SRMR < .01$).

Examining the factor structure of perceived peer treatment stigma. Findings of the EFA supported one-factor solution. All five items were retained, with standardized factor loadings ranging from 0.66 to 0.92. CFA was then conducted to assess how well the measured items represent the construct of perceived peer treatment stigma. Using CFA, the one-factor model of perceived peer treatment stigma showed good fit to the data ($\chi^2(2, N = 3,137) = 217.94, p < .001, CFI = .99, RMSEA = .05$ (90% CI: .031 to .073), $SRMR = .01$).

Examining the factor structure of psychological distress. Findings of the EFA supported two-factor solution. Six items loaded onto the first factor with standardized factor loadings ranging from 0.59 to 0.83. This first factor encompassed general psychological distress

during the pandemic. The remaining three items loaded onto the second factor with standardized factor loadings ranging from 0.42 to 0.85. This second factor encompassed COVID-specific psychological distress during the pandemic (i.e., worry and distress about COVID). CFA was then conducted to assess how well the measured items represented the constructs of general psychological distress and COVID-specific distress. Using CFA, the two-factor model of psychological distress showed good fit to the data ($\chi^2(17, N = 3,181) = 116.50, p < .001, CFI = .99, RMSEA = .04$ (90% CI: .036 to .050), $SRMR = .02$).

Associations between perceived treatment stigma and personal treatment stigma

Associations between personal treatment stigma and both perceived parental treatment stigma and perceived peer treatment stigma were examined first. In line with Hypothesis 1a, both perceived parental treatment stigma ($b = 0.21, SE = .01, \beta = 0.23, p < .001$) and perceived peer treatment stigma ($b = 0.24, SE = .02, \beta = 0.28, p < .001$) were positively associated with personal treatment stigma, such that higher levels of perceived treatment stigma from either source were associated with higher levels of personal treatment stigma.

Informal Psychological Help-Seeking SEM

Associations between personal treatment stigma and informal psychological help-seeking. As hypothesized (Hypothesis 1b), personal treatment stigma was negatively associated with informal help-seeking ($b = -0.26, SE = .03, OR = 0.77, p < .001$), such that for every one unit increase in personal treatment stigma, participants were 1.30 times less likely to report informal psychological support.

Direct effects of perceived treatment stigma on informal psychological help-seeking.

Results provided mixed support for Hypothesis 1c. While perceived parental treatment stigma was associated with lower levels of informal help-seeking ($b = -0.13, SE = .01, OR = 0.89, p <$

.001), contrary to hypotheses, perceived peer treatment stigma was not significantly related to informal help-seeking ($b < 0.01$, $SE = .01$, $OR = 1.00$, $p = .875$). Higher levels of perceived parental treatment stigma were associated with a lower likelihood of informal help-seeking, such that for every one unit increase in perceived parental treatment stigma, participants were 1.10 times less likely to report informal psychological support. See Figure 5 for full model.

Indirect effects of perceived treatment stigma on informal psychological help-seeking via personal treatment stigma. The mediating effect of personal treatment stigma on the associations between perceived treatment stigma and informal help-seeking was then examined. There were significant indirect effects of personal treatment stigma on both the pathways from perceived parental treatment stigma and perceived peer treatment stigma to informal help-seeking. Specifically, perceived parental treatment stigma was negatively associated with informal help-seeking via higher personal treatment stigma ($b = -0.05$, $SE = .01$, $OR = 0.95$). Similarly, perceived peer treatment stigma was negatively associated with informal help-seeking via higher personal treatment stigma ($b = -0.06$, $SE < .01$, $OR = 0.94$). These results provide support for Hypothesis 1c in that personal treatment stigma was a significant mediator for both pathways. However, while it was hypothesized that personal treatment stigma would partially mediate both pathways, partial mediation was found for the path from perceived parental treatment stigma to informal help-seeking, whereas there was no direct relationship between perceived peer treatment stigma and informal help-seeking.

Formal Psychological Help-Seeking SEM

Associations between personal treatment stigma and formal psychological help-seeking. As hypothesized (Hypothesis 1b), personal treatment stigma was negatively associated with formal help-seeking ($b = -0.19$, $SE = .04$, $OR = 0.83$, $p < .001$), such that for every one unit

increase in personal treatment stigma, participants were 1.21 times less likely to report formal psychological support.

Direct effects of perceived treatment stigma on formal psychological help-seeking.

As in the informal help-seeking model, results of the formal help-seeking model provided mixed support for Hypothesis 1d. As hypothesized, a significant negative association between perceived parental treatment stigma and formal help-seeking was found, such that higher levels of perceived parental treatment stigma were associated with lower levels of formal help-seeking ($b = -0.15$, $SE = .02$, $OR = 0.86$, $p < .001$). However, contrary to hypotheses, perceived peer treatment stigma was positively associated with formal help-seeking, such that higher levels of perceived peer treatment stigma were associated with slightly higher levels of formal help-seeking ($b = 0.02$, $SE = .01$, $OR = 1.03$, $p = .018$). See Figure 6 for full model.

Indirect effects of perceived treatment stigma on formal psychological help-seeking via personal treatment stigma. The mediating effect of personal treatment stigma on the associations between perceived treatment stigma and formal help-seeking was then examined. There were significant indirect effects of personal treatment stigma on both the pathways from perceived parental treatment stigma and perceived peer treatment stigma to informal help-seeking in the hypothesized direction. Specifically, perceived parental treatment stigma was negatively associated with formal help-seeking via higher personal treatment stigma ($b = -0.04$, $SE = .01$, $OR = 0.96$). Similarly, perceived peer treatment stigma was negatively associated with formal help-seeking via higher personal treatment stigma ($b = -0.05$, $SE = .01$, $OR = 0.96$). These results provide support for Hypothesis 1c in that personal treatment stigma was a significant mediator for both pathways. However, while it was hypothesized that personal treatment stigma

would fully mediate the association between perceived peer treatment stigma and formal psychological help-seeking, partial mediation was found for both pathways.

Hypothesis 2

A series of chi-square tests and logistic regressions were conducted to examine differences in psychological help-seeking based on race, gender, and grade.

Race

Differences in help-seeking were observed based on racial/ethnic identity (see Table 5). In support of Hypothesis 2a, White youth reported higher overall levels of help-seeking behavior (86.2%) than BIPOC youth (80.2%) ($\chi^2(1, N = 3,183) = 19.18, p < .001$), which was driven by a difference in overall help-seeking rates between White youth (86.2%; $\chi^2 = 19.18, p < .001$) and Black/African American youth (74.6%; $\chi^2 = 8.47, p = .004$). These differences in overall help-seeking were primarily driven by differences in informal help-seeking. Exploratory analyses revealed differences in informal help-seeking by race ($\chi^2(4, N = 3,183) = 23.99, p < .001$). Specifically, White youth reported the highest levels of informal help-seeking (85.3%), which were statistically higher than all other racial/ethnic groups ($\chi^2 = 17.81, p < .001$). Asian American/Pacific Islander youth (81.5%), Latinx/Hispanic youth (79.2%), and Multiracial/Other youth (80.7%) reported comparable levels of informal help-seeking, all lower than White youth. Black/African American youth reported the lowest levels of informal help-seeking (72.1%), statistically lower than all other racial/ethnic groups ($\chi^2 = 11.09, p < .001$).

White youth (36.4%) also reported higher levels of formal psychological help-seeking than BIPOC youth (27.3%) ($\chi^2(1, N = 3,183) = 27.51, p < .001$). This difference in formal psychological help-seeking rates between White youth and BIPOC youth was primarily driven by a large difference in formal help-seeking reported by White youth (36.4%; $\chi^2 = 27.46, p <$

.001) and Asian American/Pacific Islander youth (21.9%; $\chi^2 = 40.70, p < .001$). As hypothesized (Hypothesis 2a), Asian American/Pacific Islander youth reported the lowest levels of formal psychological help-seeking among racial/ethnic groups in the sample. Black/African American youth (31.2%), Latinx/Hispanic youth (34.9%), and Multiracial/Other youth (34.9%) reported comparable levels of formal help-seeking that were lower than White youth, but higher than AAPI youth.

Contrary to Hypothesis 2b, there were no differences in reports of school-based formal psychological supports between White and BIPOC youth ($\chi^2(1, N = 3,183) = 0.77, p = .381$). However, exploratory analyses examining more nuanced variations in school-based formal psychological supports by race revealed that Asian American/Pacific Islander youth reported significantly lower levels of school-based formal support than all other racial/ethnic categories (11.6%; $\chi^2 = 16.16, p < .001$). Comparatively, Latinx/Hispanic youth reported marginally higher levels of school-based formal psychological support than other racial/ethnic categories (24.2%; $\chi^2 = 5.29, p = .021$). Black/African American youth (20.5%), Multiracial/Other youth (20.7%), and White youth (17.7%) had rates of school-based formal psychological help-seeking in between these two extremes.

However, as hypothesized (Hypothesis 2b), White youth (29.5%) were more likely to report non-school-based sources of formal psychological support than BIPOC youth (17.7%) ($\chi^2(1, N = 3,183) = 54.67, p < .001$). Exploratory analyses revealed more nuanced significant differences in non-school-based formal help-seeking by race ($\chi^2(4, N = 3,183) = 59.94, p < .001$). White youth reported the highest rates of non-school-based formal help-seeking (29.5%; $\chi^2 = 54.61, p < .001$), while Asian American/Pacific Islander youth reported the lowest rates (15.1%; $\chi^2 = 39.19, p < .001$). Multiracial and “Other” race/ethnicity youth (including Afro-Latinx,

Indigenous/Native American, and West Asian/North African youth) reported marginally lower levels of non-school-based formal support (19.7%; $\chi^2 = 5.20, p = .023$). Black/African American youth also reported lower levels of non-school-based formal support (18.0%), although this did not reach significance. Latinx/Hispanic youth's rate of non-school-based formal psychological help-seeking was in the middle (23.5%).

Gender

Differences in help-seeking were also observed based on gender, providing support for Hypothesis 2c (see Table 6). Specifically, significant differences in overall help-seeking by gender were observed ($\chi^2(2, N = 3,183) = 98.16, p < .001$). Specifically, cisgender male youth reported significantly lower levels of overall help-seeking (77.2%; $\chi^2 = 98.01, p < .001$) than cisgender female youth (90.0%; $\chi^2 = 89.11, p < .001$). Rates of overall help-seeking for transgender and nonbinary youth (91.7%) were similar to cisgender female youth.

This pattern was also observed for informal help-seeking ($\chi^2(2, N = 3,183) = 102.45, p < .001$). Specifically, cisgender male youth reported lower levels of informal help-seeking (76.1%; $\chi^2 = 102.41, p < .001$) than cisgender female youth (89.5%; $\chi^2 = 94.48, p < .001$). As with overall help-seeking, rates of informal help-seeking for transgender and nonbinary youth (90.0%) were similar to cisgender female youth, though this did not reach significance.

There were also significant differences in formal help-seeking by gender ($\chi^2(2, N = 3,183) = 73.85, p < .001$). As hypothesized, cisgender female youth (39.4%; $\chi^2 = 60.37, p < .001$) were more likely to report formal psychological support than cisgender male youth (25.6%; $\chi^2 = 71.74, p < .001$). Exploratory analyses revealed that transgender and nonbinary youth reported higher levels of formal psychological help-seeking (48.3%; $\chi^2 = 6.35, p = .012$) than both cisgender male and cisgender female youth.

When examining differences in the types of support sought (informal support only, formal support only, both, or none), gender differences also emerged ($\chi^2(6, N = 3,183) = 141.56, p < .001$). Cisgender male youth were the most likely to report no sources of psychological support (22.8%; $\chi^2 = 98.01, p < .001$) and the least likely to report both informal and formal sources of support (24.4%; $\chi^2 = 78.68, p < .001$), providing partial support for Hypothesis 2c. Contrary to hypotheses, cisgender male youth were no more likely to report informal support only than other genders. As hypothesized, cisgender female youth were more likely than cisgender male youth to report both informal and formal supports (38.9%; $\chi^2 = 67.24, p < .001$) and less likely to report no sources of support (10.0%; $\chi^2 = 89.11, p < .001$). Exploratory analyses revealed that transgender and nonbinary youth had the highest levels of reporting both informal and formal support, which reached marginal significance (46.7%; $\chi^2 = 5.76, p = .020$).

Grade

Results provided mixed support for Hypothesis 2d. Specifically, grade was positively associated with help-seeking from peers ($\chi^2(1, N = 3,184) = 260.55, p < .001; b = .30, SE = 0.02, OR = 1.36$), such that higher grades were more likely to report help-seeking from peers. While it was hypothesized that grade would be negatively associated with help-seeking from parents, no significant association between grade and help-seeking from parents was found in either direction ($p = .429$). Logistic regressions revealed that grade was positively associated with overall help-seeking ($\chi^2(1, N = 3,184) = 23.93, p < .001; b = .12, SE = 0.03, OR = 1.13$) and, when broken down, both formal psychological help-seeking ($\chi^2(1, N = 3,184) = 29.24, p < .001; b = .10, SE = 0.02, OR = 1.11$) and informal psychological help-seeking ($\chi^2(1, N = 3,184) = 23.37, p < .001; b = .12, SE = 0.03, OR = 1.13$).

Hypothesis 3

Race

Supporting Hypothesis 3a, a one-way ANOVA showed that BIPOC youth reported higher levels of personal treatment stigma ($M = 2.54, SE = 0.61$) than White youth ($M = 2.45, SE = 0.63$), $F(1, 3116) = 14.19, p < .001$. The effect of race remained significant when examining differences among specific racial/ethnic identities ($F(1, 3113) = 4.02, p = .003$). Post hoc Tukey tests showed that Asian American/Pacific Islander youth ($M = 2.56, SE = 0.62$) reported significantly higher levels of personal treatment stigma than White youth ($p = .002$).

Exploratory analyses showed variations in perceived parental treatment stigma by race ($F(4, 3129) = 14.09, p < .001$). Post hoc Tukey tests showed that Asian American/Pacific Islander youth ($M = 1.64, SE = 0.79$) and Latinx/Hispanic youth ($M = 1.67, SE = 0.78$) reported significantly higher levels of perceived parental treatment stigma than White youth ($M = 1.42, SE = 0.65$) ($ps < .001$). There were also subtle variations in perceived peer treatment stigma by race ($F(4, 3127) = 2.40, p = .048$). However, all post hoc comparisons were non-significant or marginally significant. See Table 7 for means and standard deviations by racial/ethnic identity for all stigma variables.

Gender

Analyses provided mixed support for Hypothesis 3b. A one-way ANOVA revealed significant differences in personal treatment stigma by gender ($F(2, 3115) = 4.95, p = .007$). Specifically, post hoc Tukey tests revealed that transgender and nonbinary youth reported the highest levels of personal treatment stigma ($M = 2.66, SE = 0.72$), which were significantly higher than the personal treatment stigma reported by cisgender female youth ($M = 2.46, SE = 0.63$) ($p = 0.007$). Results trended in the hypothesized direction for differences between

cisgender male and cisgender female youth, such that cisgender male youth reported marginally higher levels of personal treatment stigma ($M = 2.51, SD = 0.61$) than cisgender female youth ($p = 0.057$).

While analyses examining gender differences in personal treatment stigma were in line with hypotheses, results for gender differences in perceived treatment stigma were the opposite of what was hypothesized (Hypothesis 3b). Perceived parental treatment stigma varied significantly by gender ($F(2, 3132) = 70.56, p < .001$). Post hoc Tukey tests revealed that all genders significantly varied from each other ($p < .001$), with cisgender male youth reporting the lowest levels of perceived parental treatment stigma ($M = 1.40, SD = 0.60$), cisgender female youth reporting slightly higher levels ($M = 1.53, SD = 0.73$), and transgender and nonbinary youth reporting the highest levels ($M = 2.42, SD = 1.20$).

Similarly, perceived peer treatment stigma varied significantly by gender ($F(2, 3130) = 28.71, p < .001$). Post hoc Tukey tests revealed that all transgender and nonbinary youth significantly varied from both cisgender female youth and cisgender male youth ($p < .001$), with transgender and nonbinary youth reporting the highest levels of perceived peer treatment stigma ($M = 2.31, SD = 1.13$) and cisgender male ($M = 1.58, SD = 0.70$) and cisgender female youth ($M = 1.61, SD = 0.74$) reporting comparable lower levels. See Table 8 for means and standard deviations by gender for all stigma variables.

Grade

Contrary to Hypothesis 3c, a linear regression showed that grade was positively associated with perceived peer treatment stigma ($\beta = 0.07, p < .001$), such that higher grades reported higher levels of perceived peer treatment stigma. Exploratory analyses also revealed that grade was associated with perceived parental treatment stigma and personal treatment

stigma. Specifically, grade was positively associated with perceived parental treatment stigma ($\beta = 0.11, p < .001$) and negatively associated with personal treatment stigma ($\beta = -0.05, p = .012$). Overall, as grade increases, participants reported lower levels of personal treatment stigma, but higher levels of perceived peer and perceived parental treatment stigma.

Discussion

The current study explored associations between personal and perceived treatment stigma and psychological help-seeking behavior among adolescents. Building on previous research, this study examined models of formal and informal psychological help-seeking to better understand help-seeking barriers in adolescence, specifically investigating how perceptions of treatment stigma from parents and peers influenced adolescents' own treatment stigma and how personal treatment stigma, in turn, influenced psychological help-seeking behavior. Further analyses examined how psychological help-seeking and personal and perceived treatment stigma varied by race, gender, and grade in school. Overall, the results of the current study largely provided support for hypotheses, with a couple of notable exceptions.

The current study revealed high rates of overall help-seeking among its adolescent sample. Specifically, 82.5% of participants endorsed seeking support from at least one source for their mental or emotional health in the past year. Consistent with prior literature (Calear et al., 2021; Raviv et al., 2000; Raviv et al., 2009; Rickwood et al., 2005; Schonert-Reichl & Muller, 1996; Sheffield et al., 2004; Tishby et al., 2001; Zwaanswijk et al., 2003), participants endorsed informal help-seeking at much higher rates (81.6%) than formal help-seeking (32.5%). Parents or caregivers were the most endorsed source of psychological support with 68.0% of the sample reporting talking with their parents or caregivers about their mental or emotional health in the past year. Notably, respondents reported help-seeking from friends and romantic partners at a

lower rate, with just over half of the sample (52.9%) reporting talking to a friend or romantic partner about their mental or emotional health in the past year. While a majority of participants endorsed help-seeking from these sources within the past year, these rates are significantly lower than those found in an early study on informal help-seeking in a sample of U.S. adolescents (Schonert-Reichl et al., 1995). The frequency of informal psychological help-seeking documented in the literature is highly variable by study and sample, perhaps due to differences in the definitions of help-seeking and the exact time frames examined (Calear et al., 2021; Rickwood & Braithwaite, 1994; Rickwood et al., 2005; Schonert-Reichl et al., 1995).

Results from the current study are consistent with prior literature documenting parents and friends as the most common sources of informal support (e.g., Lindsey et al., 2010; Schonert-Reichl et al., 1995), however, unlike in some research (e.g., Schonert-Reichl et al., 1995), this study's participants endorsed help-seeking from parents at higher rates. While this may provide support for the continued importance of parents and caregivers in adolescent mental health, this result should also be interpreted cautiously given the broader context of the COVID-19 pandemic during data collection. Specifically, as data were collected in the fall of 2020, roughly six months into the pandemic, parents may have been more accessible to youth than in non-pandemic contexts as most youth in the sample were engaged in remote learning and were not participating in their typical extracurricular activities. COVID-19 restrictions also separated youth from their peers, at least physically, leading to some youth feeling more socially disconnected than previously (Parent et al., 2021). As such, it may be that the rates of help-seeking from peers seen in the current study are lower than they would be if youth were able to connect with peers more regularly and engaged in in-person learning. Nevertheless, the current study furthers our understanding of the sources that youth turn to for psychological support,

especially in unprecedented and stressful circumstances. As in prior literature (e.g., Lindsey et al., 2010), it appears that family members are a source of support to which adolescents often first turn. This again highlights the importance of parents in youth's access to mental health services, as parents can be a "gateway provider" for their child (Stiffman et al., 2004).

While lower than rates of informal help-seeking, the current study documented high rates of formal help-seeking, when compared to prior research, with just under a third (32.5%) of the sample reporting psychological help-seeking from at least one formal source over the past year. While most literature has examined rates of formal help-seeking among adolescents with diagnosable mental disorders (e.g., Merikangas et al., 2011; Nestor et al., 2016), data from the 2019 National Health Interview Survey found that 16.8% of youth aged 12 to 17 received mental health treatment (taking medication for their mental health or receiving counseling or therapy from a mental health professional) in the past year (Zablotsky & Terlizzi, 2020). The current study revealed 15.1% of participants met with a mental health professional outside of school, 16.6% discussed their mental health with their pediatrician, and 16.9% met with a school counselor. However, it is important to note that the current study's definition of formal help-seeking was broader, including any discussion of mental health with medical providers, regardless of whether medication was prescribed. Additionally, it is unclear if school-based formal psychological supports (school counselors, school social workers), were included in the National Health Interview Survey. Nonetheless, the present study revealed a significant portion of youth accessing formal psychological supports. The unique context of the COVID-19 pandemic and increasing awareness of its socioemotional impact may have led to more adults in youth's lives, including doctors, teachers, and school counselors, more intentionally checking in on adolescents' mental health. Whether this is specific to this sample or suggestive of increasing

use of formal psychological supports by youth, it is encouraging to see that many youth in the current study were interested in and able to use mental health services.

Hypothesis 1: Models of treatment stigma and psychological help-seeking

As hypothesized, both *perceived parental* and *perceived peer* treatment stigma were positively associated with *personal* treatment stigma at medium effect sizes, such that higher levels of perceived stigma were associated with higher levels of personal stigma. The positive association between *perceived peer* treatment stigma and *personal* treatment stigma is consistent with prior literature demonstrating the impact that perceptions of public beliefs can have on our own. For instance, research in college populations has demonstrated that perceptions of stigma from peers and the broader campus were positively correlated with personal stigma (Chen et al., 2016; Pompeo-Fargnoli, 2020). The current study extends these findings to adolescent populations, demonstrating that perceptions of stigma from peers positively relate to personal stigma. That is, as adolescents perceive peers to be more or less stigmatizing of mental health treatment, they themselves take on and may internalize their peer environments' beliefs. The positive association between *perceived parental* stigma and *personal* stigma is also consistent with literature documenting the youth's attitudes and beliefs about a range of topics about influenced by parents' attitudes and beliefs (e.g., Zenter & Renaud, 2007), including mental health stigma (e.g., Moses 2010a). For instance, several studies have found that parents' attitudes about therapy and parents' stigma towards others predict self-stigma among college students (e.g., Ross et al., 2020; Vogel et al., 2009a).

Treatment stigma, in turn, was associated with adolescents' help-seeking behaviors. As hypothesized, *personal* treatment stigma was negatively associated with both *informal* and *formal help-seeking*. Higher rates of *personal* treatment stigma were associated with a lower

likelihood of having sought psychological support over the past year, at a small effect size. The negative association between *personal* treatment stigma and *formal* help-seeking has been well-documented in the literature (e.g., Clement et al., 2015; Mojtabai et al., 2016a). While many studies have examined the relationship of stigma constructs to formal help-seeking, less literature has explored how treatment stigma is related to informal psychological help-seeking. The current study suggests that a similar relationship exists between treatment stigma and *informal* help-seeking, such that adolescents who hold stigmatizing beliefs about seeking formal treatment for mental health needs are also deterred from seeking informal support. While a significant negative relationship between *personal* treatment stigma and *formal* and *informal* help-seeking was found, the effect size of both relationships was small. As discussed in the background, there are a myriad of factors that influence (and prevent) psychological help-seeking, of which stigma is just one. While addressing *personal* treatment stigma is an important piece of increasing psychological help-seeking among adolescents, it is far from the only area of intervention. Simultaneous attention to structural barriers, especially to accessing formal sources of psychological support, is necessary.

Perceived parental treatment stigma was also negatively associated with both *formal* and *informal* psychological help-seeking, such that higher *perceived parental* treatment stigma was associated with a reduced likelihood of *informal* and *formal* psychological help-seeking. Although the effect size was small, these results add to a growing literature documenting the impact that perceptions of stigma from parents can have on youth accessing formal supports for their mental health (e.g., Dempster et al., 2013; Gronholm et al., 2015; Logan & King, 2001; Turner et al., 2020). Although parents are more influential in youth's ability to access formal mental health services (see Wahlin & Deane, 2012), the current study also provides evidence for

the impact of parents' stigma on *informal* help-seeking behavior as a small direct effect of *perceived parental* treatment stigma on *informal* psychological help-seeking behavior was found.

As hypothesized, *perceived parental* treatment stigma had both a direct and indirect effect on psychological help-seeking outcomes. The relationship between *perceived parental* treatment stigma and both *informal* and *formal* psychological help-seeking was partially mediated through *personal* treatment stigma, consistent with mediational models researched in college populations (Chen et al., 2016). That is, youth's perceptions of their parents' stigma influenced their own personal stigma which, in turn, impacted help-seeking behaviors, whether from formal or informal sources. However, as hypothesized, this mediation did not fully explain the relationship between *perceived parental* stigma and help-seeking behavior. Given the gatekeeping role that parents play in accessing formal mental health care, it is unsurprising that *perceived parental* treatment stigma impacts formal psychological help-seeking outside of its impact on youth's own treatment stigma. For example, even if a youth themselves has low levels of treatment stigma, if they perceive their parents to be more stigmatizing, they are less likely to be able to access formal support. Even if youth's perceptions of their parents' stigma are incorrect, these perceptions could deter youth from ever raising the issue with their parents.

The same model was found for *informal* psychological help-seeking outcomes. *Perceived parental* treatment stigma was directly negatively associated with *informal* psychological help-seeking, as well as indirectly negatively associated with *informal* psychological help-seeking through *personal* treatment stigma. Given that parents are a large source of informal support for adolescents, and, in fact, often the first place that youth turn to for support (Lindsey et al., 2010), it is unsurprising that higher levels of *perceived parental* stigma are related to lower levels of

informal help-seeking, as perceptions of stigma would deter youth from seeking support from at least one source of informal support (their parents).

Results regarding *perceived peer* treatment stigma, however, were less intuitive. Although it was hypothesized that *perceived peer* treatment stigma would be negatively related (both directly and indirectly) to *informal* psychological help-seeking, only an indirect negative relationship was found. *Perceived peer* treatment stigma was positively associated with *personal* treatment stigma which was, in turn, negatively related to *informal* psychological help-seeking. This mediation is consistent with literature examining perceived and *personal* treatment stigma and help-seeking intentions in college samples (Chen et al., 2016). However, contrary to hypotheses, *peer* stigma was not directly related to *informal* psychological help-seeking. Given that peers, like parents, are a common source of informal support for adolescents, it was surprising that perceptions of stigma from peers did not directly influence informal help-seeking as *perceived parental* treatment stigma did. One possible explanation is that the unique context of the COVID-19 pandemic at the time of data collection meant that adolescents did not have as much access to their peers as in pre-pandemic contexts. Additionally, the measure used to measure psychological help-seeking included more adult sources of informal support (parents, other relative, teacher/coach/school administrative staff, minister or religious leader) than peer sources of informal support (friend or romantic partner). While *perceived peer* treatment stigma would logically impact help-seeking from peers, it would not likely have an impact on *informal* help-seeking from adults in youth's lives, which encompassed many of the sources included in the measure.

Perceived peer treatment stigma also impacted *formal* psychological help-seeking in unexpected ways. While the hypothesized indirect relationship was found (*perceived peer*

treatment stigma had a negative indirect effect on formal help-seeking through *personal* treatment stigma), a positive direct effect was found. That is, higher *perceived peer* treatment stigma was associated with a higher likelihood of *formal* help-seeking among adolescents. While the effect size of this direct effect was very small, its direction is certainly surprising and in opposition to prior literature showing that higher levels of perceived public stigma predict lower help-seeking intentions (Calear et al., 2021; Griffiths et al., 2011; Nearchou et al., 2018). Notably, most of prior literature focused on help-seeking intentions rather than actual help-seeking behavior, which is one possible explanation for the contrary finding. Additionally, prior literature examined broader perceptions of stigma (e.g., campus stigma, public stigma), rather than stigma from the specific source of peers. While campus stigma is similar to *perceived peer* stigma, the broader inclusion of individuals outside of youth's social networks may be an important nuance in understanding how perceptions of stigma influence help-seeking behaviors. For instance, it may be that perceived stigma from peers motivates youth to seek out formal support so as to avoid further stigmatization or social exclusion, even as these perceptions of stigma simultaneously increase their own treatment stigma, demotivating formal help-seeking. Inversely, it may be that youth who are seeking formal mental health treatment are more likely to perceive stigma from their peers. That is, they may be more attuned, or even hypervigilant, to their peers' beliefs about mental health and therapy. Further exploration of this finding is necessary to understand what underpins this finding, the directionality of the relationship, and how it may vary by sources of formal support.

Overall, the current study provided support for a mediational model of personal and perceived treatment stigma and psychological help-seeking. It appears that perceived treatment stigma, especially from parents, can deter youth from seeking both informal and formal sources

of psychological support, both directly and indirectly through its impact on youth's personal treatment stigma. While perceptions of *parental* stigma were as influential as hypothesized, the findings for *perceived peer* treatment stigma were muddier, with only indirect effects in the hypothesized direction and a small positive direct effect for *formal* help-seeking. While very little research has distinguished between these sources of treatment stigma, the current findings are somewhat consistent with a prior study that found that, among Black college students, perceived stigma from family was a stronger predictor of help-seeking intentions than perceived peer stigma (Barksdale & Molock, 2009). While further research is needed to confirm and build on these findings, the current study highlights the importance of parents in youth's psychological help-seeking during adolescence.

Hypotheses 2 and 3: Examination of psychological help-seeking and treatment stigma across race, gender, and grade

The current study also documented significant variations in psychological help-seeking by race, gender, and grade. Overall, White, cisgender female, transgender and nonbinary, or older youth were most likely to access psychological support, whether formal or informal. Similarly, significant variations in both personal and perceived treatment stigma by race, gender, and grade were observed, described in more detail below.

Differences by Race

As hypothesized, White youth had a higher rate of overall psychological help-seeking than BIPOC youth, which analyses suggest is largely a reflection of differences in *informal* help-seeking. When examined with more nuanced racial/ethnic identity categories, White youth had the highest rate of overall help-seeking while Black/African American youth reported the lowest. The three remaining racial/ethnic categories (Asian American/Pacific Islander, Latinx/Hispanic,

and Multiracial/Other), had comparable rates of overall help-seeking between White and Black/African American youth. The same pattern emerged for *informal* help-seeking, with White youth reporting the highest levels of informal psychological help-seeking, Black/African American youth the lowest levels (though still a majority reported informal help-seeking), and Asian American/Pacific Islander, Latinx/Hispanic, and Multiracial/Other youth reporting comparable levels in the middle. There is little research on racial/ethnic differences in informal help-seeking, although prior research suggested less of a racial gap in informal help-seeking behaviors than formal help-seeking behaviors (Guo et al., 2015; Schonert-Reichl et al., 1995). Further research, especially qualitative work that seeks to understand the sources of informal support BIPOC youth access, is needed to understand differences in patterns of informal help-seeking by race.

In line with prior research (Cummings & Druss, 2011; Guo et al., 2015; Kearny et al., 2015; Narendorf et al., 2018; Nestor et al., 2016; Wang et al., 2005; Zimmerman, 2005), White youth in the current study also reported *formal* psychological help-seeking at higher rates than BIPOC youth. In line with prior research documenting this disparity being most pronounced for Asian American youth (e.g., Guo et al., 2015; Lipson et al., 2018), Asian American/Pacific Islander youth in the sample reported the lowest levels of formal psychological help-seeking of all racial/ethnic groups. While higher than the formal help-seeking rates of AAPI youth in the study, Black/African American, Latinx/Hispanic, and Multiracial/Other youth all had comparable levels of formal help-seeking below those of White youth. This pattern was also seen for *non-school-based formal* psychological help-seeking: White youth reported the highest rates of non-school based formal psychological supports (i.e., mental health professional outside of

school, pediatrician, emergency room, inpatient or residential services, and substance use detox or rehab center) while AAPI youth reported the lowest.

Although prior literature found that BIPOC youth are more likely to access formal mental health care services only at school (Ali et al., 2019), the current study did not find a significant difference in rates of *school-based sources of formal* psychological support (i.e., school counselors) when comparing White youth to BIPOC youth all together. However, when broken into more specific racial/ethnic categories, significant differences in the use of school-based formal psychological support emerged. Specifically, AAPI youth reported significantly lower levels of school-based formal psychological support than all other racial/ethnic groups, and Latinx/Hispanic youth reported significantly higher levels. White, Black/African American, and Multiracial/Other youth reported comparable levels in between AAPI and Latinx/Hispanic youth. The low rates of school-based mental health care utilization among AAPI youth in the current study is consistent with a prior study that found particularly low rates of school-based mental health service use among Asian-American adolescents (Anyon et al., 2014).

It is crucial to contextualize these disparities in rates of psychological help-seeking in the long history of mistreatment of BIPOC by the healthcare system and ongoing systemic racism and structural barriers that prevent BIPOC youth from accessing the informal and formal supports they deserve. The differences in informal help-seeking rates, with Black and African American youth reporting the lowest levels of informal help-seeking, may be partially explained by the fact that BIPOC students in the current study were attending predominantly White schools, surrounded by mostly White peers, White teachers, and White staff.

Although BIPOC youth comprised a significant percentage of Massachusetts students in the 2019-2020 academic year (35%), only 6.9% of teachers and 16% of paraprofessionals were

BIPOC (Education Trust, 2020). Alarming, 29% of Massachusetts students attended schools with no teachers of color (Education Trust, 2020). Whereas 100% of White students attended schools where at least 5% of teachers shared their race, a majority of BIPOC students did not (Education Trust, 2020). In fact, in the 2019-2020 academic year, 54% of Black youth, 55% of Latinx youth, 80% of Asian youth, and 98% of Multiracial youth attended schools where less than 5% of teachers shared their racial identity (Education Trust, 2020).

This trend was even more pronounced for the school districts included in the study. The school staff for all three school districts was over 95% White, meaning that no BIPOC student in the study attended school in a district where at least 5% of the staff shared their race. Given that the data was provided on the district, rather than school, level and that the numbers of BIPOC staff were so low across the district, it is possible and perhaps even likely that the specific schools included had even lower percentages of BIPOC staff and that some schools had no staff of certain racial/ethnic identities. Additionally, the district data provided included all school staff (i.e., teachers, paraprofessionals, administration, nurses, etc.) and thus the numbers could have been even lower when examining the race/ethnicity of teachers by themselves.

The lack of representation of teachers of color means that BIPOC youth have few adults within the school who share their identity. BIPOC youth may not feel safe in disclosing distress to White teachers and staff, who may minimize or pathologize their experiences. Stereotype threat may also play a role here, deterring BIPOC youth, and particularly Black youth, from seeking support from White peers and school adults, for fear that their distress will be used as evidence to confirm racist stereotypes about their racial/ethnic group (Steele & Aronson, 1995). Research in college samples has documented the negative impact that attending a predominately White institution can have on access to supports (Beasley, 2016).

A similar phenomenon may be at play in the current study. As BIPOC youth navigate White environments in which most of their peers do not share their identities and experiences and few, in any, teachers do, there may be few sources of informal support to whom BIPOC youth feel they can turn. Conversely, White youth are surrounded by peers, teachers, school staff, and coaches who share their racial identity, which may explain why these youth report the highest rates of informal psychological help-seeking. Meanwhile, Black/African American youth comprised the smallest percentage of the five racial/ethnic groups examined, meaning that Black/African American youth were least likely to have peers who shared their identity at school. This, in turn, could lead to lower levels of felt safety in peer help-seeking and could partially explain why the rates of informal psychological help-seeking were lowest for Black and African American youth.

It is also important to note the unique experience that METCO students who participated in this survey may have had. Qualitative work has highlighted some of the challenges METCO students face, including feelings of disconnection (both from their home and their school communities) and racist experiences at their school (Austin, 2017). While many BIPOC students may feel less comfortable accessing informal supports in a predominately White environment, this may be highlighted for METCO students who do not live in the community that they attend school in and who may feel othered by their predominately White schools.

Of course, family members are also important sources of informal psychological support for youth. As previously mentioned, most youth in the current study reported seeking psychological support from their parents in the past year. While the current study did not examine differences in help-seeking from specific sources (e.g., parents) by race, it is possible that differences in *perceived parental* treatment stigma, discussed more below, also impacted

informal help-seeking, especially for AAPI and Latinx/Hispanic youth who reported the highest rates of *perceived parental* treatment stigma. While these results provide initial insight into racial/ethnic differences in informal help-seeking among adolescent populations, future research confirming these findings and examining what underpins these trends is necessary.

Similarly, the racial/ethnic differences in *formal* psychological help-seeking observed in the current study are not considered to reflect lower rates of psychological distress among BIPOC youth, as prior literature suggests the inverse (see Benner et al., 2018; Priest et al., 2013; Tynes et al., 2019), but rather a myriad of barriers, many systemic, that prevent BIPOC youth from accessing formal care. The long history of mistreatment of communities of color by the healthcare system (see Poussaint & Alexander, 2000; Suite et al., 2007) has fomented ongoing mistrust of the mental healthcare system and its ability to provide support and care for BIPOC youth (Stanhope et al., 2005). The fear of clinician bias is a large deterrent to formal psychological help-seeking (Neighbors et al., 2003; Olbert et al., 2018; Whaley & Geller, 2007), which is driven by the underrepresentation of BIPOC clinicians in the field (American Psychological Association, 2018) and the lack of culturally responsive White clinicians (Lee et al., 2010; Ngo-Metzger et al., 2004; Townes et al., 2009). Other systemic barriers, including the financial inaccessibility of many formal psychological supports, also disproportionately impact BIPOC youth due to structural racism (Reardon et al., 2017). Healthcare stereotype threat may also be deterring BIPOC youth and their families from seeking psychological support (Abdou et al., 2016), especially given the underrepresentation of BIPOC providers in the field. Although treatment stigma is conceptualized as a key barrier to formal psychological help-seeking in adolescence, and support for this model is provided in analyses addressing Hypothesis 1, the formal mental health care disparities observed in this sample cannot be fully explained by stigma

as Black/African American, Latinx/Hispanic, and Multiracial/Other youth reports of *personal* treatment stigma did not significantly differ from the reports of their White peers. This instead points to other systemic barriers, fear of clinician bias, lack of culturally responsive care, and healthcare stereotype threat as the drivers of lower rates of formal psychological help-seeking for Black/African American, Latinx/Hispanic, and Multiracial/Other youth as compared to White peers.

The results of the current study particularly highlight ongoing disparities in *formal* psychological help-seeking for AAPI youth, which can be at least partially accounted for by the higher rates of *personal* and *perceived* treatment stigma AAPI youth report, in line with the model of *formal* psychological help-seeking seen in Hypothesis 1. Consistent with prior literature documenting higher rates of mental health stigma in Asian American populations (e.g., DeLuca et al., 2021), AAPI youth reported significantly higher levels of *personal* treatment stigma than White youth in the study. AAPI youth also reported higher levels of *perceived parental* treatment stigma than their White peers, which may both influence their own attitudes toward therapy, as well as serve as a barrier to seeking formal mental health care, which often requires parental approval and involvement. In addition to culturally relevant barriers to formal help-seeking including loss face and strong feelings of family obligation (Gee et al., 2020; Guo et al., 2015; Yang et al., 2014), Asian American youth's experience of the model myth minority may further foment treatment stigma as seeking therapy would be in opposition to society's schema of them as perfectly successful (Kim & Lee, 2014). The pattern of lower rates of formal, but to a lesser extent informal, help-seeking seen for the AAPI youth in the current study point to culturally relevant barriers to help-seeking including loss of face. While seeking psychological support from informal (most likely familial) sources does not risk a loss of face, formal help-

seeking could negatively impact both individual and family image and identity (David, 2010). However, the higher rates of *perceived parental* treatment stigma may also have deterred AAPI youth from seeking informal support from parents in particular. Further research examining the sources from which AAPI youth seek informal support, and how this maps onto perceptions of stigma, is needed.

Latinx/Hispanic youth also reported higher levels of *perceived parental* treatment stigma than White youth. This is consistent with prior qualitative research describing how Latinx cultural values of working hard and independent problem solving can lead to a conception of psychological help-seeking as weak or bad (e.g., Yang et al., 2014). However, while Latinx/Hispanic may perceive these attitudes in their parents, they may not have necessarily internalized them, given that *personal* treatment stigma among Latinx/Hispanic youth did not significantly differ from other racial/ethnic identities. Further exploration of generational differences in treatment stigma and its relationship with psychological help-seeking behavior among Latinx populations could further elucidate this.

Differences by gender

Psychological help-seeking also varied by gender, with cisgender male youth reporting significantly lower rates of overall, informal, and formal help-seeking than cisgender female youth. This mirrors extensive literature on gender differences in help-seeking (Boldero & Fallon, 1995; Haavik et al., 2019; Kelly et al., 2007; Payne et al., 2008; Rickwood & Braithwaite, 1994; Rickwood et al., 2005; Rossow & Wichstrøm, 2010; Schonert-Reichl et al., 1995). Consistent with prior literature (Offer et al., 1991; Schonert-Reichl et al., 1995), cisgender female youth were more likely to report both informal and formal sources of psychological support, while cisgender male youth were most likely to report no sources of psychological support. However,

there were no significant gender differences in likelihood of reporting only informal psychological support, as hypothesized based on prior research (Offer et al, 1991; Schonert-Reichl et al., 1995). Prior research has documented the largest gender difference in informal psychological help-seeking from friends (Rickwood et al., 2005). Given that the current study collapsed all sources of informal support, it may be that any differences in help-seeking from peers were hidden by comparable help-seeking from other informal sources (e.g., parents, other family). Overall, cisgender male youth reported significantly lower rates of all forms of psychological help-seeking than their female peers.

This is largely conceptualized as being motivated by higher rates of *personal* stigma and the related internalization of masculine gender norms. Specifically, adherence to hegemonic masculinity increases cisgender male youth's personal stigma which, in turn, demotivates help-seeking (see Clark et al., 2020). In fact, cisgender male youth reported marginally higher levels of *personal* treatment stigma than cisgender female youth, consistent with significant literature documenting higher levels of personal and self-stigma in male youth (Calear et al., 2017; Chandra & Minkovitz, 2006; Eisenberg et al., 2009; Lynch et al., 2021; Mackenzie et al., 2006; Pederson & Paves, 2014).

Contrary to hypotheses, cisgender female youth reported higher levels of *perceived parental* treatment stigma than cisgender male youth, while levels of *perceived peer* treatment stigma were comparable among cisgender male and cisgender female youth. Prior literature on gender differences in perceived stigma is mixed, with some studies indicating higher levels of perceived stigma in male youth (Barksdale & Molock, 2009; Chandra & Minkovitz, 2006). However, more recent studies have found that cisgender women score higher on perceived stigma than cisgender men (Kulesza, et al., 2014; Lynch et al., 2021). While the current study did

not find any differences in *perceived peer* treatment stigma between cisgender male and cisgender female youth, consistent with these more recent studies, cisgender male youth reported lower levels of *perceived parental* treatment stigma. In some ways, the lower rates of *perceived parental* treatment stigma among cisgender male youth are in line with gender differences found in social cognition. For instance, cisgender women score higher in empathy (Jolliffe & Farrington, 2006), mindreading (Wacker et al., 2017), and social perspective taking (Flannery & Smith, 2017) than cisgender men. Indeed, youth of different genders seem to experience self-stigma differently: while cisgender male youth are more internally focused, cisgender female youth are more worried about how perceptions of psychological distress and going to therapy would impact relationships with others (see Elkington et al., 2012). Cisgender male youth may be less socially attuned than cisgender female youth, resulting in lower perceptions of stigma from individuals in their environment. However, this does not explain why cisgender male youth would perceive lower levels of parental stigma, but not peer stigma. Further research is needed to understand these findings.

While a wealth of research has examined gender differences in psychological help-seeking within the gender binary, there is a dearth of research exploring this outside of the gender binary. As such, the current study provides a preliminary description of psychological help-seeking behaviors of transgender and nonbinary youth, albeit in the specific sample from Massachusetts middle and high schools. Transgender and nonbinary youth in the sample reported overall help-seeking and *informal* help-seeking rates that were comparable to those of cisgender female participants. It may be that transgender and nonbinary youth, like cisgender female youth, do not internalize the masculine norms that influence higher rates of mental health stigma among cisgender male youth. However, only five of the transgender and nonbinary youth in this sample

were transgender male youth, whereas the majority ($n = 57$) identified as either nonbinary or transgender female. Further research is needed to fully understand how masculine gender norms impact mental health stigma and psychological help-seeking among transgender male youth specifically. Unlike for informal help-seeking, transgender and nonbinary youth reported significantly higher levels of *formal* psychological help-seeking than both cisgender male and cisgender female youth, with almost half of transgender and nonbinary youth in the sample reporting formal psychological supports. These higher rates of mental health care utilization among transgender and nonbinary youth are likely explained at least in part by higher rates of psychological distress (see Crissman et al., 2019) stemming from experiences of gender-based oppression and transphobia (Fuller & Riggs, 2018) likely play a role.

No prior research has examined treatment stigma in transgender and nonbinary youth and the current study suggests that transgender and nonbinary youth may experience significantly higher rates of *personal* treatment stigma than their cisgender peers. Given the ongoing gender-based discrimination and transphobia within the mental healthcare system, many transgender and nonbinary youth may be reticent to seek formal mental health care services for fear of discrimination and harassment within these settings (James et al., 2016; Shipherd et al., 2010; Sperber, 2005; White Hughto et al., 2016). Furthermore, transgender and nonbinary youth may be reluctant to seek therapy for fear that this would validate transphobic beliefs that their gender identity is “pathological.” Although transphobia and gender-based oppression are understood as the driving factors of higher rates of psychological distress among gender expansive youth (e.g., Grossman & D’Augelli, 2007), many transgender and nonbinary youth continue to experience pathologization of their gender from parents, peers, and providers alike (Fuller & Riggs, 2018; Shipherd et al., 2010; Sperber, 2005). Gender expansive youth already carry a stigmatized

gender identity and seeking formal mental health services may exacerbate the marginalization and stigma that gender expansive youth already experience.

Transgender and nonbinary youth also reported the highest levels of *perceived peer* and *parental* treatment stigma, significantly differing from cisgender male and cisgender female youth. In line with the models of help-seeking examined in Hypothesis 1, the higher rates of perceived treatment stigma match the higher rates of *personal* treatment stigma. Interestingly, these higher rates of perceived and *personal* treatment stigma for transgender and nonbinary youth did not translate to lower levels of psychological help-seeking. Instead, as described above, gender expansive youth in the sample had *informal* help-seeking rates comparable to cisgender female youth and *formal* help-seeking rates significantly higher than their cisgender peers. While higher rates of psychological distress in gender expansive youth may partially explain this disconnect (Crissman et al., 2019; Lowry et al., 2018; Rimes et al., 2017), it is also possible that some transgender youth receive mental health services in order to access other gender-affirming care (e.g., hormonal treatment). Mental health providers are often gatekeepers of transgender and gender expansive youth's access to other medical care, which could lead to many transgender youth being in formal mental health services in order to access gender-affirming medical care. In these cases, gender expansive youth may engage in formal psychological help-seeking regardless of their *personal* treatment stigma. Further research should further examine how treatment stigma relates to help-seeking behaviors among transgender and nonbinary youth. For instance, is the relationship between treatment stigma and help-seeking behaviors moderated by youth's engagement in gender-affirming medical care? Alternately, while overall help-seeking rates may be high, does a lower proportion of gender expansive youth in psychological distress seek psychological support than for cisgender youth?

Differences by grade

Psychological help-seeking also varied by grade. Used as a proxy for age, grade-based differences in psychological help-seeking revealed that older youth reported more psychological help-seeking, both from *informal* and *formal* sources of support, consistent with prior literature showing increasing rates of mental health service utilization with age (Merikangas et al., 2011). Also as hypothesized, older youth were more likely to seek support from their peers. Contrary to hypotheses, grade was not related to help-seeking from parents, such that younger and older youth were equally likely to report seeking psychological support from their parents. While the unique context of the COVID-19 pandemic may contribute to the accessibility of and closeness to parents that youth were feeling at the time of data collection, it is also possible that older adolescents continue to feel able to talk to their parents about their mental health well into high school. It seems that, as youth age, rather than peer support replacing parental support, instead they are more likely to reach out for support from a variety of sources. The higher rates of psychological help-seeking in older youth may be partially explained by the lower rates of *personal* treatment stigma. Grade, as a proxy for age, was negatively associated with *personal* treatment stigma such that older peers reported lower levels of stigma.

Surprisingly, grade was positively associated with *perceived peer* and *parental* treatment stigma, such that while older peers reported lower levels of their own stigma, they perceived higher levels from peers and parents. Although developmental theory led to a hypothesis of decreased *perceived peer* stigma with age, little research has examined actual differences in treatment stigma across this developmental period, and upon further examination, this result is consistent with one prior study did which found perceived stigma of depression to be higher among older adolescents (Calear et al., 2011). It is interesting that personal and perceived stigma

move in opposition to each other as adolescents age, with personal stigma decreasing as perceived stigma increases. One possible explanation is that, as youth gain a deeper understanding of mental health and their own stigma decreases, the relative difference between their own stigma and their perceptions of others' stigma grows. It is also possible that adolescents are less influenced by others' opinions as they move from early to late adolescence. Further exploration of these developmental changes is warranted and could include examination of age as a moderator of pathways of help-seeking. That is, does perceived treatment stigma have the same impact on personal treatment stigma in later adolescence as it does in early adolescence?

Implications

Taken together, findings from the current study highlight the ongoing importance of treatment stigma when considering barriers to psychological help-seeking among adolescents. In particular, this study showcases the critical role of perceived parental treatment stigma in both formal and informal psychological help-seeking behaviors of youth. While most antistigma interventions target youth's own beliefs about mental health and therapy, the current study underscores the importance including parents in interventions aimed at increasing adolescent help-seeking. Simultaneously, ongoing attention to youth's personal treatment stigma will be important as personal treatment stigma was still the strongest predictor of psychological help-seeking. Mental health stigma remains a significant barrier to youth accessing psychological support and formal mental health services.

Despite these barriers, the current study also revealed that many youth sought support for their mental health from a variety of sources. Informal psychological help-seeking was far more common than formal help-seeking, with over 80% of youth reporting seeking support from at

least one informal source. However, this varied greatly by gender. While roughly 90% of cisgender female, transgender, and nonbinary youth reported informal help-seeking, only 76.1% of cisgender male youth did. While a majority of cisgender male youth still reported informal help-seeking, it is concerning that nearly a quarter did not speak to any informal sources of support (whether family, friends, or other supportive adults) about their mental or emotional health in the past year. This is particularly concerning given the inclusiveness of this item (i.e., “Which of the following people have you talked with about your mental or emotional health (for example, for your feelings, mood, or behavior) in the past year?”). Even if they are not experiencing significant psychological distress, the ability to seek emotional support and discuss their feelings and wellbeing is critical to a youth’s positive development.

Unsurprisingly, far fewer youth sought formal psychological support in the past year, with just under a third of the sample reporting psychological help-seeking from at least one formal source. Again, this varied significantly by gender; while roughly a quarter of cisgender male youth reported formal psychological help-seeking, roughly 40% of cisgender female youth did, and just under half of transgender and nonbinary youth did. As with informal help-seeking, higher levels of personal treatment stigma, coupled with gender role socialization and internalizations of certain masculine gender norms, deter cisgender male youth from seeking out formal support, even if they would benefit from it. Antistigma interventions that can incorporate discussions of gender and deconstruct the idea that help-seeking is in opposition to masculinity may be especially important in order to address help-seeking gaps for cisgender male youth. Further research is needed to understand the higher rates of formal psychological help-seeking for transgender and nonbinary youth in the sample. While it is encouraging to see so many gender expansive receiving some form of formal psychological support over the past year,

further research is needed to understand whether this higher rate of formal help-seeking reflects the gatekeeping role mental healthcare plays for medical gender affirming care versus youth seeking psychological support voluntarily, as well as the role of higher rates of psychological distress associated with oppression.

Simultaneously, transgender and nonbinary youth reported the highest levels of personal and perceived treatment stigma of any gender. Despite accessing formal care at high rates, gender expansive youth hold more stigmatizing beliefs about therapy than their cisgender peers. While further research is needed to fully understand what motivates this difference, this finding can begin to inform clinical work with transgender and nonbinary youth. Given the higher rates of treatment stigma, gender expansive youth who begin formal mental health services may do so with more reservations about therapy's utility and more worry about how it will impact them socially. The mental healthcare system must combat transphobia within the field, improving training on working with transgender and gender expansive populations so that transgender and gender expansive youth can come to expect that their providers will not only not be outright transphobic, but also be attuned and responsive to their experiences and needs. As the field employs more gender expansive clinicians and works to improve the competence of cisgender clinicians, gender expansive youth will likely find therapy to be a more helpful space (rather than another place that they experience oppression) and their personal treatment stigma may decrease.

Help-seeking also varied by race, such that while White youth were the most likely to seek both informal and formal psychological support, Black/African American youth were the least likely to seek informal support and AAPI youth were the least likely to seek formal support. This points to ongoing inequities in access to supports, whether formal or informal, for BIPOC youth. The predominately White environments, and especially school environments, that the

BIPOC youth in the study exist in no doubt contribute to these lower levels of informal help-seeking, as peers, teachers, and coaches are common sources of informal support. Schools must diversify their teachers and school staff more broadly; better representation could influence not only informal help-seeking, but also formal help-seeking from school counselors.

Simultaneously, it is imperative that schools combat racism within the school as increasing representation will not be sufficient if the systems remain embedded in systemic racism.

The current study also highlights higher rates of personal and perceived treatment stigma and lower rates of formal psychological help-seeking for Asian American/Pacific Islander youth. These lower rates of formal help-seeking do not necessarily reflect differences in psychological distress, but rather imply unmet mental health needs for AAPI youth in particular, at least partially motivated by personal and perceived stigma of seeking formal support. Simultaneously, AAPI youth report higher levels of informal help-seeking, comparable with Latinx/Hispanic and Multiracial/Other youth. Further research that explores AAPI youth's experience and benefits of informal help-seeking, as well as what would make formal supports feel less stigmatizing and more beneficial, would be helpful in ensuring AAPI youth can access the psychological supports they need.

Although AAPI youth sought formal psychological supports at the lowest rate, systemic barriers also are limiting BIPOC youth's access to formal psychological supports more broadly. Given the ongoing systemic barriers to accessing formal psychological supports outside of school, schools should endeavor to be a space of access as much as is possible. States must increase funding for student mental health, including funding more school counselors, social workers, and psychologists to support youth in these environments. Starting school-based mental health clinics can also provide access to formal psychological support while removing

transportation barriers. Culturally responsive antistigma interventions and mental health education for youth and their families will also help address stigma as a barrier to all forms of psychological help-seeking. Simultaneous attention to systemic barriers that impact BIPOC youth's access collectively as well as barriers specific to different groups will be most effective at increasing psychological help-seeking among youth.

Increasing the cultural competence and responsiveness of clinicians in the field, while working to diversify the workforce, will be key in order for BIPOC youth to feel that therapy is a space where their experiences and values will be understood and appreciated. Our field must prioritize recruiting BIPOC clinicians and emphasize the importance of anti-racist practice within clinical work in order for the field's work to match its aspiration to be a healing profession for all. Intertwined with this is the need to make mental healthcare accessible for all. The financial and logistical barriers to accessing mental health services have made so many non-school-based formal psychological supports a privilege that wealthy (and most frequently White) youth can access, while low-income, BIPOC youth are excluded. However, healthcare—mental healthcare included—is not a privilege, it is a human right. Our society must shift our healthcare systems to disrupt these inequities.

Limitations and future directions

While the current study had several strengths, there are limitations that must be considered. First, the study was cross-sectional which did not allow for examination of change over time or for an examination of the causality of the relationships between constructs. Future longitudinal research would allow for examination of how personal and perceived treatment stigma and psychological help-seeking change over the developmental stage of adolescence. Longitudinal research would also deepen our understanding of how perceptions of stigma,

especially from parents, influence the development of youth's own beliefs about mental health and therapy, and how these personal beliefs, in turn, influence perceptions of their parents' stigma. Additionally, future research could also measure parents' actual treatment stigma, in addition to youth's perceptions of it, to ascertain whether it is parents' actual beliefs, youth's perceptions of them, or both, that should be the targets of anti-stigma interventions moving forward.

Although the present study provides insight into youth's experiences of treatment stigma and help-seeking behavior, it is important to note that these specific findings are not necessarily generalizable as data was only collected from six public schools in Massachusetts. While it is hypothesized that the overall models of help-seeking would generalize to national samples, specific rates of help-seeking and levels of personal and perceived treatment stigma may differ in other locations. Additionally, while the current study had a large sample size allowing for complex modeling, there were still limitations to the specific demographic make-up of the sample. Participants were majority White and most other racial/ethnic groups—with the exception of AAPI youth who were well-represented—were underrepresented in the sample, which meant some racial/ethnic groups were underpowered in analyses examining differences by race/ethnicity. Moreover, given that the schools included in the study were primarily White, BIPOC students' experiences of perceived peer treatment stigma may not be generalizable to schools with other demographics.

Relatedly, the race variable used in the study did not allow for nuanced explorations of racial/ethnic differences in stigma and help-seeking. Five racial/ethnic categories were used, which meant collapsing several distinct identities, whose experiences of stigma and help-seeking do not necessarily overlap, into one broader category. This particularly impacted the

Multiracial/Other category which included Multiracial, West Asian/North African, Indigenous/Native American, Afro-Latinx, and “Other” racial identity youth. This is an extremely diverse group and the collapsing of these identities into one category for analyses likely erased variations among these youth. Future research should examine more nuanced variations by racial identity as well as differences within broader racial/ethnic identities. Additionally future research should assess race and ethnicity separately and more specifically. Even within the other racial/ethnic groups examined (e.g., AAPI, Black/African American, Latinx/Hispanic, White), many different ethnicities and cultures are encompassed that have different attitudes towards help-seeking. Assessment of immigrant generation status, along with race and ethnicity, would allow for a fuller picture of youth’s identities which may inform help-seeking.

Although there was a sufficient subsample of gender expansive youth to examine gender differences outside of the gender binary, it is important to note that this subsample was still relatively small ($n = 62$) when compared to the subsamples of other genders. There were several descriptive differences in rates of psychological help-seeking, for instance, that did not reach statistical significance, most likely due to sample size. Future research should endeavor to recruit more gender expansive youth and explore the unique experiences of transgender and nonbinary youth with regards to mental health stigma. The current study documented higher levels of psychological help-seeking despite higher levels of personal and perceived treatment stigma among gender expansive youth. Future research that is able to unpack these findings will be important in better supporting the wellbeing of gender expansive adolescents moving forward.

Future research should also continue to explore the role that age plays in these models of help-seeking, including youth’s personal and perceived treatment stigma. For instance, the

current study found that while perceived treatment stigma increased with grade, personal treatment stigma decreased. Future research could explore whether age moderates the relationship between perceived treatment stigma and personal treatment stigma. That is, do older adolescents internalize perceptions of stigma from parents and peers less than younger adolescents? Although grade was a suitable proxy for age in the current study, future research would ideally use age, rather than grade, as this variable of interest.

An additional limitation is that the current study did not examine how psychological help-seeking and treatment stigma varied by levels of psychological distress. Although a measure of psychological distress was included as a covariate in the model analyses, it did not allow for a detailed understanding of the level and types of psychological distress youth in the study were experiencing. Future research should incorporate more detailed measures of psychological distress in order to examine whether differing levels of distress impact personal and perceived treatment stigma and whether the models of help-seeking examined in this study vary based on level of psychological distress. Future research could also examine how the specific type of psychological distress youth are experiencing may relate to treatment stigma, as prior literature has suggested differences in perceived and personal stigma of specific mental health needs (e.g., Lynch et al., 2021).

Finally, the current study is limited by its highly unique context of collecting data roughly six months into the global COVID-19 pandemic. At the time of data collection, most youth were engaged in remote learning and had limited access to in-person social contact. Youth were more disconnected from their peer networks and spending more time with parents than in prior contexts, which may have impacted psychological help-seeking rates and sources. Furthermore, even for youth who were not directly impacted by COVID itself, adolescents were

more broadly impacted by the uncertainty and anxiety the pandemic brought. At the time of data collection, youth may have been especially distressed and disconnected. Replication of these results as the context and COVID-19 regulations shift and evolve will be important.

Simultaneously, the present study provides a snapshot of the extent to which youth sought psychological support during a time of extreme global distress, anxiety, and loss.

Conclusion

Despite these limitations, the current study is among the first to assess how perceptions of treatment stigma from specific sources relate to personal treatment stigma and psychological help-seeking among a large adolescent sample. Moreover, while there is a large body of research examining psychological help-seeking intentions, this study expands the literature by providing more information about the psychological help-seeking behaviors of adolescents, including the specific sources adolescents turn to for support and how help-seeking behaviors vary by demographic variables. Findings suggest that perceptions of treatment stigma, especially from parents, impact both personal treatment stigma and psychological help-seeking. Findings also revealed significant variations in psychological help-seeking behaviors and personal and perceived treatment stigma by race, gender, and grade, adding nuance to our understanding of mental health stigma during this developmental period. More generally, findings point to the ongoing importance of addressing in culturally responsive ways not only personal treatment stigma, but also parental treatment stigma, in order to increase youth's psychological help-seeking and allow for improved adolescent mental health.

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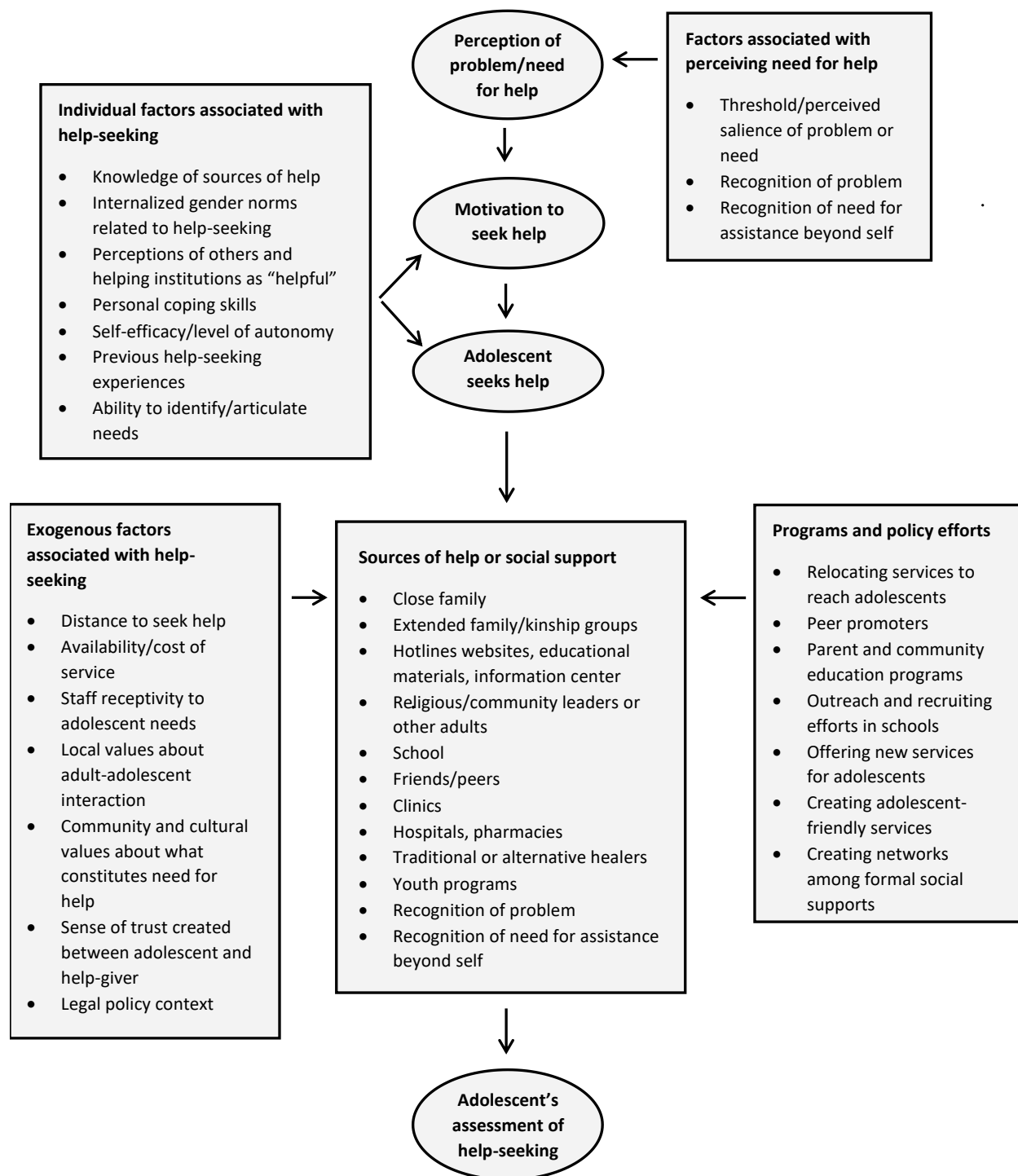
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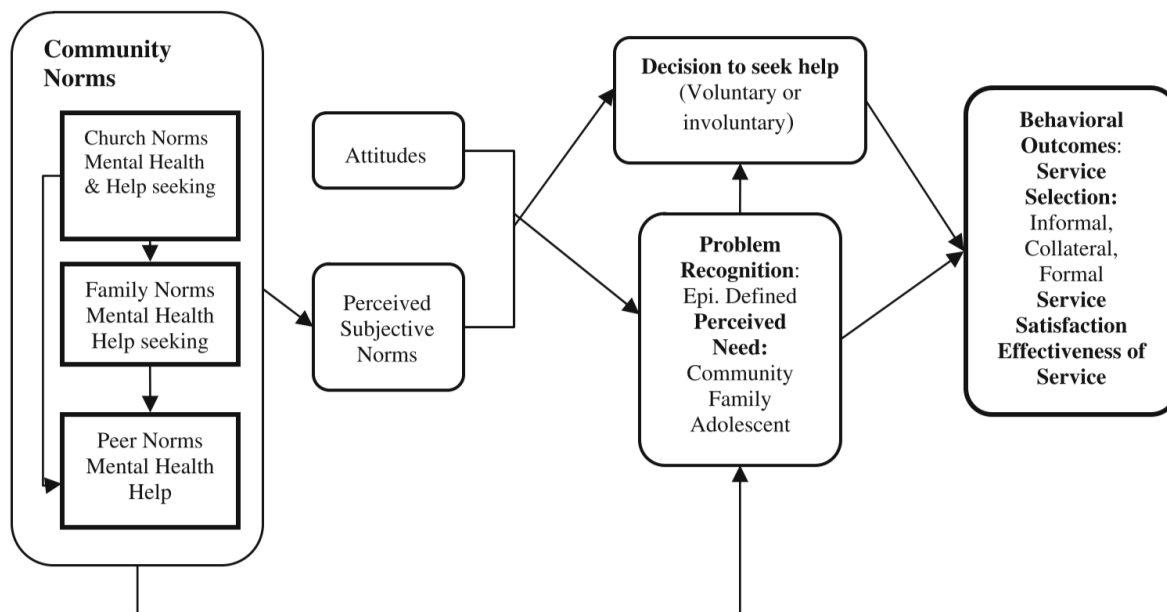
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Figure 1

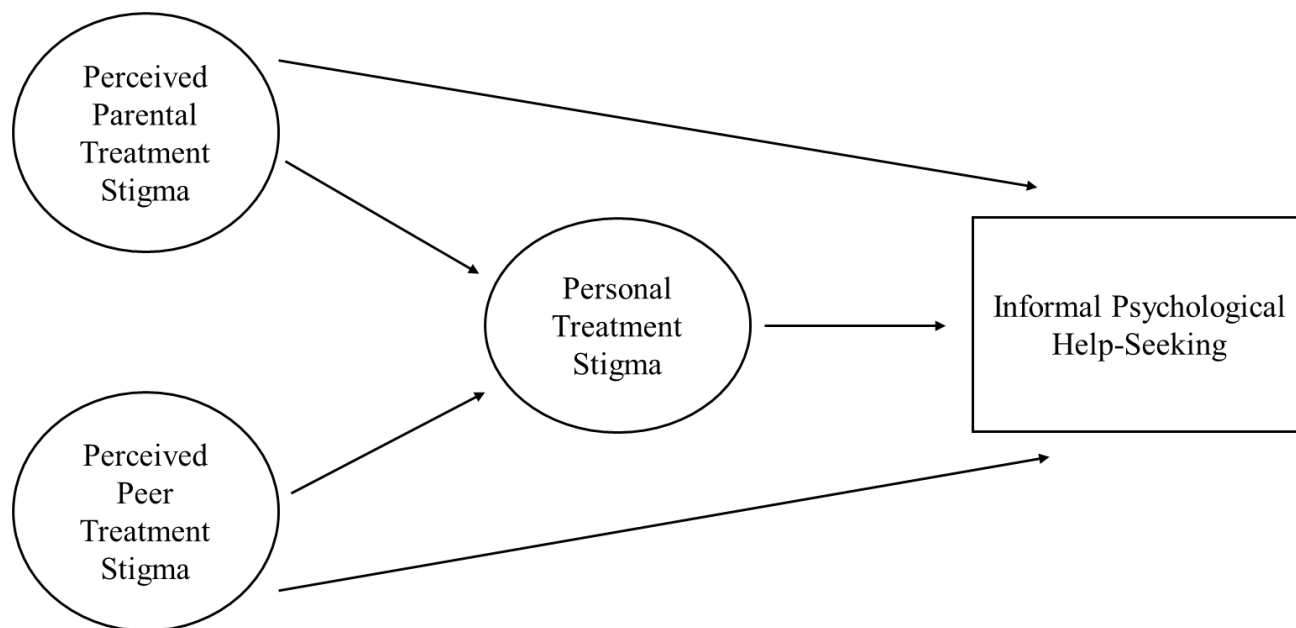


Note: Schema for adolescent help-seeking. Adapted from “Adolescents, social support and help-seeking behaviour: an international literature review and programme consultation with recommendations for action,” by G. Barker, 2007, World Health Organization.

Figure 2

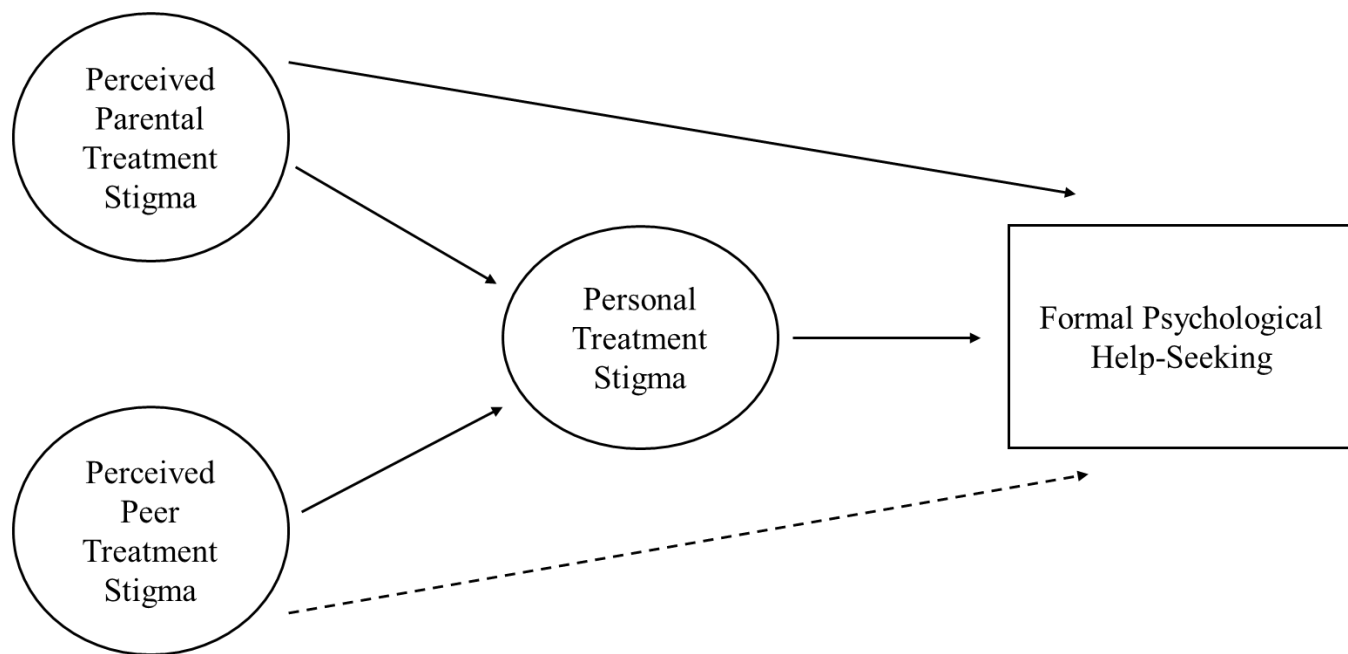


Note: Model of mental health help seeking. Reprinted from “Perceived norms and mental health help seeking among African American college students,” by C. L. Barksdale & S. D. Molock, 2009, *The Journal of Behavioral Health Services & Research*, 36(3), 285–299.

Figure 3

Hypothesized model of informal psychological help-seeking.

Note: Covariates (race, gender, grade, psychological distress) are not shown in figure.

Figure 4

Hypothesized model of formal psychological help-seeking.

Note: Covariates (race, gender, grade, psychological distress) are not shown in figure.

Table 1*Student and Staff Race/Ethnicity by School District*

	Student	Staff
District A		
Asian/Asian American/Pacific Islander	7%	<1%
Black/African American	3%	0%
Latinx/Hispanic	6%	1%
White	80%	98%
Multiracial/Other	4%	<1%
District B		
Asian/Asian American/Pacific Islander	30%	<1%
Black/African American	1%	3%
Latinx/Hispanic	2%	<1%
White	63%	96%
Multiracial/Other	4%	<1%
District C		
Asian/Asian American/Pacific Islander	10%	2%
Black/African American	12%	1%
Latinx/Hispanic	13%	<1%
White	59%	96%
Multiracial/Other	6%	<1%

Table 2*Demographic Characteristics of Youth Participants (N = 3,248)*

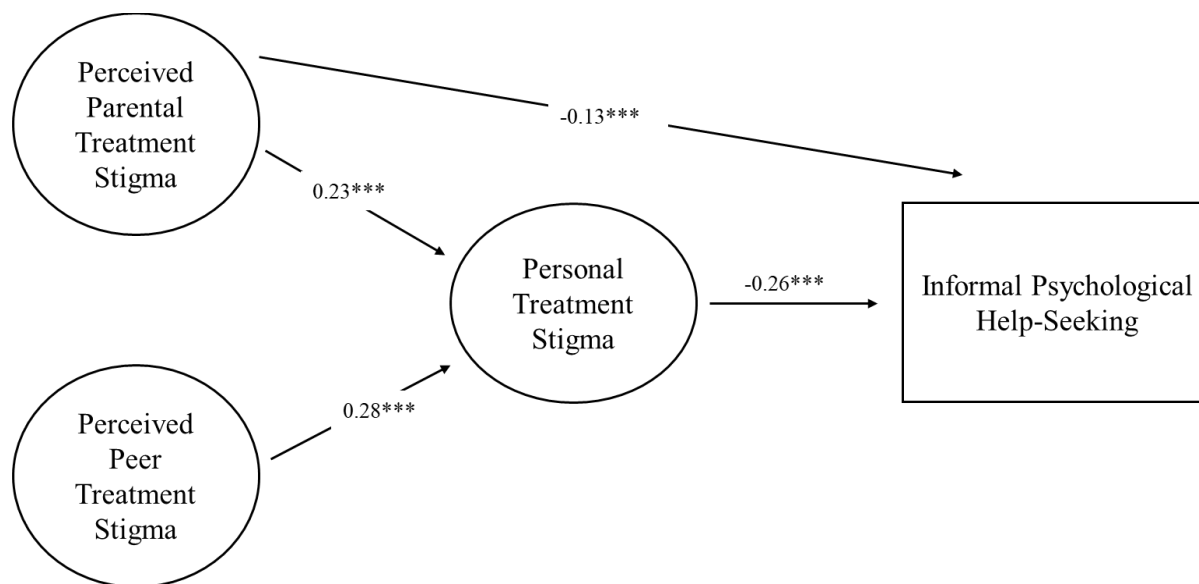
Characteristics	Number	Percentage
Gender		
Cisgender male	1,506	46.4%
Cisgender female	1,664	51.2%
Transgender male	5	0.2%
Transgender female	10	0.3%
Nonbinary	47	1.4%
(Missing data)	16	0.5%
Race/ethnicity		
Afro-Latinx	16	0.5%
Asian/Asian American	592	18.2%
Black/African American (Non-Latinx)	126	3.9%
Hawaiian/Pacific Islander	3	0.1%
Indigenous/Native American	34	1.1%
Latinx/Hispanic	152	4.7%
West Asian/North African	14	0.4%
White	2,069	63.7%
Multiracial	177	5.5%
Other	49	1.5%
(Missing data)	16	0.5%
Grade		
6 th	501	15.4%
7 th	567	17.4%
8 th	556	17.1%
9 th	419	12.9%
10 th	421	13.0%
11 th	394	12.1%
12 th	375	11.6%
(Missing data)	16	0.5%

Table 3*Type of Psychological Help-Seeking Sources Endorsed*

Type of Help-seeking	Number	Percentage
Any Help-seeking	2,678	82.5%
Informal Help-seeking	2,651	81.6%
Formal Help-seeking	1,056	32.5%
School-based formal psychological supports	549	16.9%
Non-school-based formal psychological supports	806	24.8%

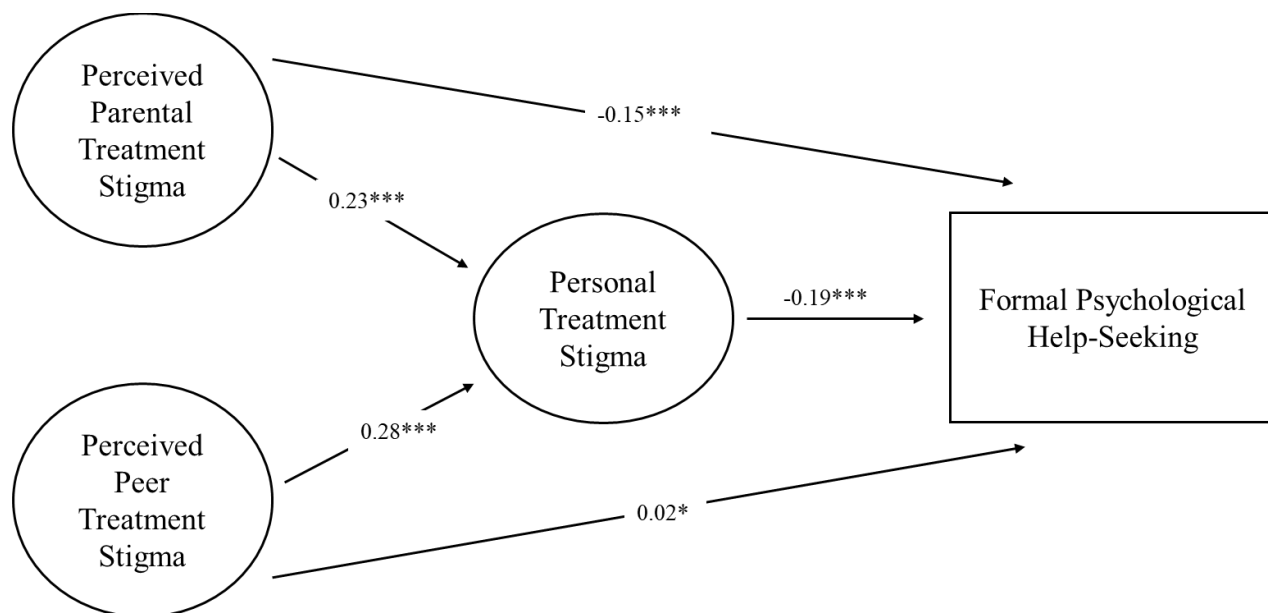
Table 4*Psychological Help-Seeking Sources Endorsed*

Source	Number	Percentage
Parent or caregiver	2,208	68.0%
Other relative/family member	1,084	33.4%
Friend or romantic partner	1,718	52.9%
Teacher/Coach/School Administration Staff	331	10.2%
School Counselor	549	16.9%
Mental health professional outside of school	491	15.1%
Pediatrician	538	16.6%
Minister or religious leaders	45	1.4%
Phone/text helpline	96	3.0%
Online/social media support group	107	3.3%
Emergency room, inpatient, or residential services	54	1.7%
Substance use detox or rehab center	8	0.2%
Other	71	2.2%

Figure 5

Informal help-seeking SEM results.

*Note: Covariates are not included in figure. *** $p < .001$. ** $p < .01$. * $p < .05$.*

Figure 6

Formal help-seeking SEM results.

*Note: Covariates are not included in figure. *** $p < .001$. ** $p < .01$. * $p < .05$.*

Table 5*Help-Seeking Endorsement by Racial/Ethnic Identity*

	AAPI	Black/AA	Latinx	Multiracial/ Other	White
Any Help-seeking	81.5%	74.6%*	79.2%	80.7%	86.2%*
Informal Help-seeking	81.1%	72.1%*	77.9%	80.0%	85.3%*
Formal Help-seeking	21.9%*	31.2%	34.9%	32.6%	36.4%*
School-Based Formal	11.6%*	20.5%	24.2% [†]	20.7%	17.7%
Non-School-Based Formal	15.1%*	18.0%	23.5%	19.7% [†]	29.5%*

*Note: * denotes statistical significance. [†]denotes marginal significance.*

Table 6*Help-Seeking Endorsement by Gender*

	Cisgender male	Cisgender female	Trans/nonbinary
Any Help-seeking	77.2%*	90.0%*	91.7%
Informal Help-seeking	76.1%*	89.5%*	90.0%
Formal Help-seeking	25.6%*	39.4%*	48.3%*
Types of Support			
<i>Informal Supports Only</i>	51.7%	50.6%	43.3%
<i>Formal Supports Only</i>	1.2%	0.6%	1.7%
<i>Both Informal and Formal</i>	24.4%*	38.9%*	46.7%†
<i>None</i>	22.8%*	10.0%*	8.3%

Note: * denotes statistical significance. † denotes marginal significance.

Table 7*Personal and Perceived Stigma Means by Racial/Ethnic Identity*

	<i>Mean (SD)</i>				
	AAPI	Black/AA	Latinx	Multiracial/ Other	White
Personal	2.56 (0.62)*	2.49 (0.62)	2.55 (0.56)	2.52 (0.61)	2.45 (0.63)*
Perceived Parental	1.64 (0.79)*	1.53 (0.75)	1.67 (0.78)†	1.54 (0.78)	1.42 (0.65)*†
Perceived Peer	1.63 (0.72)	1.55 (0.71)	1.68 (0.75)	1.72 (0.80)	1.59 (0.74)

Note: Statistically significant differences (as determined by ANOVA and post-hoc analyses, see results for Hypothesis 2) between racial/ethnic identity groups are denoted with shared symbols.

Table 8*Personal and Perceived Stigma Means by Gender*

	Cisgender male	Cisgender female	Trans/nonbinary
Personal	2.51 (0.61)	2.46 (0.63)*	2.66 (0.72)*
Perceived Parental	1.40 (0.60)*†	1.53 (0.73)*‡	2.42 (1.20)†‡
Perceived Peer	1.58 (0.70)*	1.61 (0.74)†	2.31 (1.13)*†

Note: Statistically significant differences (as determined by ANOVA and post-hoc analyses, see results for Hypothesis 2) between racial/ethnic identity groups are denoted with shared symbols. Marginally significant differences are described in text.

Appendix 1

Personal treatment stigma: Adaptation of Self-Stigma of Seeking Help (SSOSH) scale (Vogel et al., 2006a)

People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A. I would feel like I wasn't good enough if I went to a therapist for help with my mental health (my feelings, mood, or behavior).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. My self-confidence would NOT go down if I got help for my mental health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Seeking help for my mental health would make me feel less smart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. My self-esteem would increase if I talked to a therapist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. My view of myself would NOT change just because I made the choice to see a therapist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. I would feel like I was worth less than other people if I asked a therapist for help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. I would feel okay about myself if I made the choice to seek help for my mental health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. If I went to a therapist, I would be less happy with myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. My self-confidence would stay the same if I got professional help for a problem I could not solve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. I would feel worse about myself if I could not solve my own problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perceived parental treatment stigma: Adaptation of Perceptions of Stigmatization by Others for Seeking Help (PROSH) scale (Vogel et al., 2009b)

Imagine you had a problem that needed to be treated by a mental health professional. If you wanted to get mental health services, to what degree do you believe that your parents/caregivers would:

	Not at all	Slightly	Moderately	Very	Extremely
A. Think of you in a less positive way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Think bad things of you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. React negatively to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Think something was seriously wrong with you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Think you were dangerous to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perceived peer treatment stigma: Adaptation of PROSH scale (Vogel et al., 2009b)

Imagine you had a problem that needed to be treated by a mental health professional. If you got mental health services, to what degree do you believe that your peers (friends, classmates, other people you know your own age) would:

	Not at all	Slightly	Moderately	Very	Extremely
A. Think of you in a less positive way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Think bad things of you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. React negatively to you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Think something was seriously wrong with you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Think you were dangerous to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Psychological help-seeking: Adaptation of Actual Help-Seeking Questionnaire (AHSQ; Rickwood et al., 2005)

Which of the following people have you talked with about your mental or emotional health (for example, for your feelings, mood, or behavior) in the past year? (Check all that apply)

- Parent or caregiver
- Other relative/family member
- Friend or romantic partner
- Teacher/Coach/School Administrative Staff (e.g., principal, vice principal, dean)
- School Counselor
- Mental health professional outside of school (e.g., psychologist, social worker, counselor)
- Pediatrician
- Minister or religious leader (e.g., Priest, Rabbi, Chaplain)
- Phone/text helpline (e.g., Lifeline)
- Online/social media support group
- Emergency room, inpatient or residential services
- Substance use detox or rehab center
- I've talked with another person not listed above about my mood or feelings in the past year (please list in space provided) _____
- I have not talked with anyone about my mood or feelings in the past year

Psychological Distress

Since becoming aware of the COVID-19 (Coronavirus) outbreak, how often have you...

<i>General Distress</i>	Never	Rarely	Sometimes	Often	Very often
A. Had difficulty sleeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Felt sad, down, or blue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Felt anxious or "on edge"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Had angry outbursts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Felt like time was slowing down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Felt in a daze or "out of it"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>COVID-Specific Distress</i>	Never	Rarely	Sometimes	Often	Very often
G. Tried to avoid thoughts and feelings about COVID-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Had distressing dreams about COVID-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Been upset when I see something that reminds me of COVID-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>