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Idia Binitie Thurston
University of South Florida

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Help-Seeking and Utilization Patterns among African American and Caucasian Mothers
and Fathers: An Examination of Parental Problem Recognition, Barriers, and Beliefs

by

Idia Binitie Thurston

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Psychology
College of Arts and Sciences
University of South Florida

Major Professor: Vicky Phares, Ph.D.
Michael Brannick, Ph.D.
James Epps, Ph.D.
Ellis Gesten, Ph.D.
Joseph Vandello, Ph.D.

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Dedication

I would like to dedicate this manuscript to my amazing husband, Rashard Thurston, who has been there for me every step of the way from undergrad, to graduate school, and internship. Thank you for talking me through my ideas, sitting next to me in the library, and gently reminding me to pick up my dissertation when I really didn't feel like it.

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I will always remain thankful for my family; mom, dad, Ehi, Eboni, EJ, Esigie, and Odion, who have supported me emotionally and financially along my Ph.D. journey.

I love you all so much and could not have gotten this far without your love and support.

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Help-Seeking and Utilization Patterns among African American and Caucasian Mothers
and Fathers: An Examination of Parental Problem Recognition, Barriers, and Beliefs

Idia Binitie Thurston

Abstract

The underutilization of mental health services is a pervasive problem that persists despite efforts by researchers and interventionists to make treatment accessible. Several factors have been hypothesized to contribute to these underutilization rates including sociopolitical factors (financial and structural barriers), and cultural/familial factors (race, ethnicity, socioeconomic status, gender, age, marital status, attitudes, beliefs, and stigma). The current study set out to explore patterns of child mental health service utilization based on parents' perceptions. Guided by "The Youth Help-Seeking and Service Utilization Model," the relationship between parental problem recognition and willingness to seek formal and informal help as influenced by parents' demographic variables, sociocultural beliefs, experience, perceived need, family characteristics, and barriers were examined. Parental perceptions of problem behaviors in children were examined through the use of 3 vignettes (internalizing, externalizing, and no diagnosis conditions) varying only by child gender. A total of 251 Black¹ and White² parents from the community participated in this study. Data analyses involved correlations, t-tests,

¹ The terms Black and African American will be used interchangeably throughout this paper.

² The terms White and Caucasian will be used interchangeably throughout this paper.

general linear modeling procedures (including ANOVA, ANCOVA, and multiple regressions), non-parametric tests, and logistic regression analyses. As hypothesized, results revealed that more parents recognized the internalizing and externalizing vignettes as problematic, parents reported stronger intentions to seek help when they recognized a mental health problem, and they were more willing to seek help for a boy with an internalizing problem than a girl. Additionally, perceived severity was related to recognition of both internalizing and externalizing problems. Gender, race, and previous experience were related to parents' recognition and willingness to seek help; with mothers, white parents, and those with more experience recognizing problems and expressing willingness to seek help for an internalizing problem. Finally, perception of barriers and certain beliefs impacted parents' willingness to seek help. The implications of this study with respect to help-seeking patterns for youth will be discussed. In addition, results will be discussed with an eye toward service providers' and intervention researchers' shaping the referral process, keeping families in treatment, and developing strategies aimed at improving problem recognition and help-seeking with eventual goals of increasing actual utilization of mental health services for mothers, fathers, and their children.

Help-Seeking and Utilization Patterns

Background

Mental health services have been sorely underutilized in our society by adults and children alike. Researchers have investigated various factors that may be contributing to underutilization of these services. Some of these factors include demographic variables like race and gender; societal structure factors like income and socioeconomic status; individual attitudes and beliefs about mental health; various structural barriers to using mental health services; and perceiving an actual need for mental health care. However, there is a dearth of systematic research on the patterns of utilization and help-seeking and how these various factors may interact to increase or decrease actual utilization of mental health services in adults and children. Lack of understanding of the patterns of utilization and help-seeking may result in delayed progress in efforts to increase utilization in all individuals as well as targeted groups (such as racial and ethnic minorities) who have especially low rates of utilization.

The purpose of this study is to conduct a preliminary investigation of patterns related to underutilization of mental health services in a systematic fashion. Various researchers in the field have theorized patterns that may be contributing to utilization of mental health services. However, little has been done to establish these patterns in a systematic way and to determine if these theorized patterns are indeed paths to utilization. A thorough understanding of these patterns will provide intervention researchers and

mental health service providers with focused areas to target in efforts to improve utilization in children and their families.

Underutilization of Mental Health Services

The seminal report of the Surgeon General based on major epidemiological surveys stated that over 20% of adults in the U.S. population are affected by mental health disorders in a given year (U.S. DHHS, 1999). Recent epidemiological studies estimate that 26.2% of adults will have a mental or addictive disorders in a given year (Kessler, Chiu, Demler, & Walters, 2005) with lifetime prevalence estimates at 46.4% (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Despite these high prevalence rates, underutilization of mental health services in our society is well documented. Specifically, Kessler and colleagues examined utilization rates in adults with mental health disorders and found that 32.9% had used mental health services in the preceding year (Kessler, Demler, et al., 2005). This utilization rate is an increase from 20.3% in the 1990's. Similarly, across the general adult population, current mental health utilization rates for emotional disorders increased from 12.2% between 1990 and 1992 to 20.1% between 2001 and 2003; with only half of these individuals actually meeting criteria for a *DSM-IV* diagnosis (Kessler, Demler, et al., 2005). Even though mental health utilization increased over 10 years, it is still notable and concerning that most adults with mental health disorders are not receiving treatment.

The disparity between those individuals who need mental health services and those who actually utilize mental health services is not limited to adults. Epidemiologic studies have also documented the underutilization of mental health services in children and adolescents. Estimates indicate that a median of 12-14% of children and adolescents

meet criteria for a serious emotional disturbance (i.e. they meet diagnostic criteria and have impairment in functioning) each year (Costello, Egger, & Angold, 2005; Waddell, Offord, Shepherd, Hua, & McEwan, 2002). Additionally, lifetime prevalence of child mental health disorders have been estimated between 53-57%, with more comprehensive estimates, based on the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A) forthcoming (Kessler et al., 2009). Despite high prevalence rates, the report of the Surgeon General indicated that 21% of children and adolescents in the U.S. use mental health services every year; with only half meeting criteria for a diagnosable mental or addictive disorder (U.S. DHHS, 1999). Of note, when treatment is utilized by children and adolescents with a serious emotional disturbance, only 22-25% actually receive services from the specialized mental health sector (Waddell et al., 2002). Thus, approximately 75-80% of children and adolescents fail to receive the specialty mental health services they need, and the majority of children and adolescents fail to receive any services at all (Costello et al., 2005).

An important aspect of service utilization, therefore, is where and from whom mental health services are being received. Results from the Great Smoky Mountain Study indicated that the majority of children with a serious emotional disturbance who had used mental health services were seen by providers in the education sector which included guidance counselors and/or school psychologists (Farmer, Burns, Phillips, Angold, & Costello, 2003) Other researchers have found that mental health services are often sought out from primary care providers due to the significant increase in psychotropic medication use (Glier & Cuellar, 2003). Overall, the utilization of mental

health services from the school sector and primary care setting has been well established (Power, Eiraldi, Clarke, Mazzuca, & Krain, 2005).

There are several contributing factors to the underutilization of mental health services by children, adolescents, and adults. Some of these factors were described in the president's new freedom commission on mental health including: problems with cost, fragmentation of services, lack of availability of services, and societal stigma toward mental illness (President's New Freedom Commission on Mental Health, 2003). The various factors contributing to underutilization have been categorized into two groups: sociopolitical factors, and cultural and familial factors (Power, Eiraldi, Clarke, Mazzuca, & Krain, 2005). These factors will be discussed in detail below. In general, however, sociopolitical factors include variables related to availability and coverage of health insurance, location of mental health services, and ease of accessibility to these services (Power et al., 2005). Cultural and familial factors include demographic variables that have been shown to influence utilization of mental health services including: race, ethnicity, socioeconomic status, and marital status. Also included in this category are beliefs that vary across families and cultural groups - such as beliefs about mental health illness, validity of treatments, and trust in professionals who offer the mental health services (Power et al., 2005).

Sociopolitical factors. These factors include variables related to the availability of health insurance with coverage of mental health services, location of mental health services, and accessibility to these services (Power at al., 2005). From a broader perspective, sociopolitical factors can be described as barriers to the utilization of mental health services based on access variables rather than cultural or attitudinal factors. These

sociopolitical barriers include financial barriers (cost and insurance coverage), and structural barriers (accessibility to services, availability of services, etc). It is important to note however, that historically, research on barriers to service utilization often includes financial and structural barriers as well as other more cultural/attitudinal barriers such as stigma, attitudes, and perceived barriers that are more unique to racial minorities such as distrust due to differences in race and language barriers. This study, however, will attempt to discuss these cultural/attitudinal factors separately from the sociopolitical factors but some overlap in the review of literature is probable.

Financial barriers. One of the highly influential factors related to the underutilization of mental health services is the cost of mental health treatment and the related cost of health insurance coverage. A study by Ringel and Sturm (2001) found that 7% of families with a child claimed financial barriers as the reason for not receiving mental health care. Unfortunately, the researchers did not report the percentage for adult populations. Research on the effects of health insurance coverage on mental health service utilization by children and adolescents has been well established. For instance, using data from the National Survey of America's Families, Busch and Horwitz (2004) found that after controlling for reported mental health need, uninsured children were less likely to have used mental health services than children who were privately insured. Similar results were reported by Kataoka, Zhang, and Wells (2002) who found that in comparison to families who had public or private insurance, uninsured families were less likely to receive mental health services and ethnic minority families were overrepresented among these uninsured families. In addition, Ringel and Sturm (2001) found that children with Medicaid were most likely to receive mental health services while children

without any insurance were least likely to receive mental health services. Thus, it appears having some type of resource to cover mental health needs (either private or public insurance) results in higher rates of utilization of mental health services.

Structural barriers. There are numerous structural barriers that contribute to the underutilization of mental health services by parents and their children. Some of these barriers were documented in the Surgeon general's report including fragmentation of services and lack of availability of services (U.S. DHHS, 1999). The location of mental health services and ease of accessibility to these services have also been well documented as barriers to utilization of mental health services. Recently, Sareen and colleagues (2007) investigated perceived barriers to service utilization in adults across several countries (US, Canada, and the Netherlands) and found higher rates of perceived attitudinal barriers than structural barriers overall. More specific to structural barriers, however, they found that individuals who had a mood or substance disorder in the past year were most likely to endorse financial barriers. Furthermore, respondents in the U.S. were more likely to report that they were unsure of where to go for services and reported that services would take too much time or be inconvenient (Sareen et al., 2007). Owens and colleagues (2002) investigated parents' reports of barriers to their children's mental health utilization. They found that 20.7% of parents endorsed structural barriers, which included issues related to cost, accessibility, and availability of mental health services. Furthermore, 23.3% of parents endorsed barriers related to perceptions of mental health problems (such as deciding to handle the problem on their own), whereas 25.9% endorsed barriers related to perceptions of mental health services (such as being afraid of what family/friends might say; Owens et al., 2002). In terms of barriers to future service

utilization, Kekorian, McKay, and Bannon (2006) examined parents' perceived barriers to seeking mental health services for their children a second-time and found that those parents who endorsed more barriers to service utilization were more likely to doubt the utility of future treatment and reported feeling disrespected by their child's provider.

Some intervention programs have attempted to reduce these structural barriers to treatment utilization with little to no impact on overall service utilization. For instance, Bickman, Heflinger, Northrup, Sonnichsen, and Schilling (1998) implemented an intervention program that increased parents' knowledge of mental health services and their self-efficacy but the program did not increase treatment involvement, which was defined by how involved the parent/caregiver was in the child's treatment. More recently, Stevens, Klima, Chisolm, and Kelleher (2009) utilized structured telephone support services in attempt to reduce barriers to service utilization but were also unsuccessful. These findings suggest that without addressing some of the other variables influencing the underutilization of mental health services, in addition to structural and financial barriers to treatment, interventions to increase utilization will likely be unsuccessful. Some of these variables are categorized as cultural and familial factors and are often more difficult or impossible to change.

Cultural and familial factors. These factors include demographic variables that have been shown to influence utilization of mental health services (such as race/ethnicity, socioeconomic status, gender, age, and marital status), and beliefs that vary across families and cultural groups - such as beliefs about mental health illness, validity of treatments, and trust in professionals who offer the mental health services (Power et al.,

2005). Thus cultural/familial factors are those variables related to mental health utilization that are based on specific demographic variables and attitudinal barriers.

Race and Ethnicity. Racial and ethnic minorities make up approximately 30 percent of the United States population based on census data collected in 2000 (U.S. Census Bureau, 2001). By the year 2050, it is projected that racial and ethnic minorities will make up approximately 50 percent of the United States population (U.S. Census Bureau, 2004). Needless to say, the United States has seen and will continue to see a tremendous rate of growth in racial and ethnic groups that will ultimately influence the way of life of all Americans. These statistics make the importance of racial and ethnic disparities an even more salient factor, as over half the population in the United States, will be impacted eventually.

Despite its detrimental effects, the underutilization of mental health services by individuals from minority cultures has been well documented and the research is fairly consistent across various studies. The Surgeon General's report stated that the prevalence of mental disorders for racial and ethnic minorities are equal to those for Whites, yet utilization of mental health services is extremely low for racial and ethnic minorities (U.S. DHHS, 2001). This seminal report stated that ethnic minorities have "less access to, availability of, and are less likely to receive, needed mental health services; often receive poorer quality of mental health care; and are underrepresented in mental health research" (U.S. DHHS, 2001). These factors were reiterated in the president's new freedom commission on mental health (2003).

Research indicated that racial and ethnic minorities experience a heavier disability burden from mental health illness than Caucasians, because they receive fewer services

and poorer quality care, and not because their illnesses differ in severity or prevalence (U.S. DHHS, 2001). However, Sue and Chu (2003) revisited this issue of the prevalence of mental health disorders in ethnic minorities, and reviewed data collected after the Surgeon General's report was completed. They concluded that racial and ethnic differences are seen in the prevalence of mental disorders in adults. Specifically, they reported that African Americans tend to have the lowest rates of mental health disorders; Mexican Americans, and Asian Americans and Pacific Islanders have slightly lower or similar rates to Non-Hispanic Whites, while American Indians and Alaskan Natives have the highest rates of mental health disorders (Sue & Chu, 2003). Overall, however, regardless of the prevalence rates, research has consistently shown that racial and ethnic minorities underutilize mental health services more than Caucasians (Sue & Chu, 2003). Furthermore, there are additional barriers that are unique to individuals of racial and ethnic minority groups including: mistrust and fear of treatment, racism/discrimination, differences in language and communication and cultural barriers in general (Thompson, Bazile, & Akbar, 2004).

Dobalian and Rivers (2008) examined racial and ethnic differences in mental health service utilization and found that even after controlling for socioeconomic status and insurance, racial and ethnic disparities in service utilization persisted with African Americans and Hispanics being less likely to visit a mental health professional. Kataoka, Zhang, and Wells (2002) also found that uninsured families were disproportionately overrepresented by ethnic minorities and both Hispanics and African American children had higher levels of unmet need than Whites. However, as previously noted, even when they are insured, ethnic minorities still underutilize mental health services. This

utilization pattern is consistent in both the adult (Dobalian & Rivers, 2008) and child (Ringel & Sturm, 2001) populations. Furthermore, research has shown that even when minorities overcome barriers and actually utilize mental health services, they are at high risk of dropping out of treatment (Snowden & Yamada, 2005). Sue and Sue (2007) found that 50 percent of African American clients stop treatment after the first session compared with 30 percent of Caucasian clients. Additionally, African Americans and Latinos are less likely to seek help from mental health professionals and agencies compared to Caucasians (Dobalian & Rivers, 2008; Snowden, 2001). Furthermore, research found that African American parents endorsed more barriers to mental health service utilization for their children than Caucasian parents (Thurston & Phares, 2008). Although, no race differences were found in attitudes toward mental health treatment for their children.

Socioeconomic status. It is almost impossible to review the influence of socioeconomic status (SES) on mental health service utilization without also discussing race and ethnicity. It has been well documented that a large proportion of minorities are represented in lower SES classes. In truth, the finding that barriers to mental health service utilization influence minorities more severely (U.S. DHHS, 2001), is likely because a large proportion of racial and ethnic minorities are in lower socioeconomic classes and most of the barriers to mental health service utilization have a more detrimental effect on individuals of lower SES.

The U. S. Census Bureau (2009) reported on the 2008 poverty levels of children under age 18 by race and ethnicity. Specifically, the report stated that approximately 34 percent of African American children, 30 percent of Hispanic children, 15 percent of

Caucasian children, and 14 percent of Asian children are living below the poverty level. Another aspect of poverty that has a significant effect on racial and ethnic minorities is single parent status. In her review of socioeconomic disadvantage and child development, McLoyd (1998) noted that financial problems and risk of poverty are some of the burdens associated with raising children in single parent (usually single mother) households. She stated that these financial burdens are often due to low wages from just one parent, low education attainment, unfavorable economic conditions, and low rates and levels of child support (McLoyd, 1998). Data on children being raised by single mothers indicated that 50.2 percent of African American children and 23.3 percent of Hispanic children are being raised by single mothers compared with 13.4 percent of Caucasian children (Hofferth, Stueve, Pleck, Bianchi, & Sayer, 2002). Data from the U. S. Census Bureau (2006) reported that 28.7 percent of children being raised by single mothers are below the poverty level compared to 5.1 percent of children with married parents.

As stated earlier, most of the factors related to underutilization of mental health services have more detrimental effects on individuals of lower SES. Specifically, individuals of low SES perceived more barriers to mental health service utilization than higher SES individuals due to individuals in low SES communities having fewer financial resources and the least educational attainment (U.S. DHHS, 1999). More recently, in a study of poor neighborhoods, Chow and colleagues (2003) found higher rates of utilization of public mental health services in low poverty areas (where <20% of households had incomes below the poverty level) compared to high poverty areas (where 20% or more of the households had incomes below the poverty level). Similar

underutilization patterns are found in adolescents, Pumariega and colleagues (1998) found that socioeconomic status was consistently related to utilization compared to all the other non-clinical factors they examined. In contrast, when Kataoka and colleagues (2002) examined utilization and poverty, they found that children from families who were at or below the poverty level were more likely to have used mental health services than children from non-poor families. This finding is likely due to the fact that Medicaid and other public insurances are most often utilized by poor families (Power, Eiraldi, Clarke, Mazzuca, & Krain, 2005). Overall, socioeconomic status appears to have major influences on utilization of services due to the strong relationship between race, ethnicity and SES and the influence of financial barriers on utilization of mental health services.

Gender. It is well known that parents have a tremendous impact on the lives of their children both genetically and environmentally. In comparison to mothers, however, less information is known about the father's role in predicting child outcome because the majority of studies that include parents tend to include only mothers rather than mothers and fathers. Recent reviews of studies of both developmental psychopathology and pediatric psychology have shown that fathers are highly underrepresented in research (Phares, Fields, Kamboukos, & Lopez, 2005; Phares, Lopez, Fields, Kamboukos, & Duhig, 2005). This pattern is problematic given that when mothers and fathers are studied, both appear to have tremendous influence on their children's lives (Lamb, 2010). To include only one parent is to ignore a large portion of the child's life.

Overall, parental gender and child gender are differentially related to mental health service utilization by children and their families. Research has established that women utilize mental health services more often than men (Mahalik, Good, & Englar-

Carlson, 2003). The influence of parental gender on children's mental health service utilization, however, has not been investigated thoroughly. Fals-Stewart, Fincham, and Kelley (2004) found that substance-abusing fathers were less willing than substance-abusing mothers to allow their children to receive treatment. There is also evidence that fathers are less inclined to participate in treatment than mothers (Duhig, Phares, & Birkeland, 2002). A review by Phares and colleagues concluded that men often believe that problematic behaviors are normal for children or that therapy is a waste of time (Phares, Fields, & Binitie, 2006). These beliefs might also influence fathers when deciding to seek help for their children. Overall, since women utilize mental health services for themselves more often than men, it is reasonable to assume that mothers would be more inclined than fathers to seek mental health services for their children. Previous research indicated that mothers had more positive attitudes toward mental health service utilization for their children than fathers (Thurston & Phares, 2008). However, no parental gender differences were found in perceived barriers to seeking services for their children.

Research on youth gender and service utilization is somewhat inconsistent. In their study of tri-ethnic adolescents, Pumariega and colleagues found that females had more mental health visits than males (Pumariega, Glover, Holzer, & Nguyen, 1998). However, in their review of epidemiologic data of children ages 3-17 years, Kataoka and colleagues reported that boys were more likely to have received mental health services than girls (Kataoka, Zhang, & Wells, 2002). With regard to factors associated with utilization, it has been shown that girls and adolescent females tend to have more positive help-seeking attitudes, perceive fewer barriers to help-seeking (Raviv, Raviv, Vago-

Gefen, & Fink, 2009), and report less stigma to utilizing mental health services (Chandra & Minkovitz, 2006) than boys and adolescent males. Therefore, although most studies consistently find that adult females utilize services more often than males and that female youth seek help more often than male youth; epidemiologic data show that male youth actually utilize mental health services more often than female youth. Furthermore, a review by Zwaanswijk and colleagues reported that gender differences in help-seeking and problem recognition by parents is dependent on the child's age, where more help is sought for boys in childhood and early adolescence whereas more help is sought for girls in late adolescence (Zwaanswijk et al., 2003). The researchers attributed these findings to the fact that externalizing problems (which are more prevalent in boys) tend to decrease with age while internalizing problems (more common in girls) increase with age.

Age and marital status. Kessler et al. (2008) reported monotonic increases in mental health utilization rates in adults over age 18 until about age 44, at which time a decline in mental health utilization occurred with some of the lowest utilization rates in adults over age 60. With regard to youth utilization, older children use mental health services more frequently than younger children. Ringel and Sturm (2001) reviewed several epidemiologic studies to determine national estimates of mental health service utilization in youth. They found that approximately 5-7% of children and adolescents ages 1-17 years use specialty mental health services in a year. These data further broke down to 1% to 2% of preschoolers, 6% to 8% of 6-11 years old, and 7% to 9% of youth ages 12-17 years (Ringel & Sturm, 2001). Similar data were also reported by Kataoka, Zhang, and Wells (2002) who reviewed three national surveys of mental health service

use among children ages 3-17 years old. The findings from these studies indicate that school-age children are 3-4 times more likely to receive mental health services than preschoolers.

Mental health service utilization appears to be higher in single parent homes compared to homes with two parents (Teagle, 2002). Specifically, Pumariega and colleagues found more lifetime mental health visits in adolescents from father-absent households; however, the reverse was true for the Hispanic sample alone (Pumariega, Glover, Holzer, & Nguyen, 1998). Researchers also reported that unmarried individuals in both private and public health sectors had greater odds of utilizing services than married individuals (Swartz et al., 1998). Overall, it appears that the odds of utilizing mental health services are greater for younger, unmarried adults; and older youth from single parent homes.

Attitudes, beliefs, and stigma. Parents' beliefs about mental illness, the validity of treatment, their trust in mental health professionals, fear of being stigmatized by friends and family, and attitudes toward treatment; all influence their help-seeking intentions and utilization of mental health services. Attitudinal barriers (perceived barriers to service utilization based on attitudinal factors rather than structural/access factors) have been shown to have a strong relationship with mental health service utilization (Sareen et al., 2007). In this study of service utilization across three countries, Sareen and colleagues (2007) also found that attitudinal barriers were more prevalent than structural barriers. At the individual adult level, studies have found strong associations between attitudes and help-seeking intentions (Mackenzie, Gekoski, & Knox, 2006). Kessler and colleagues (2001) found that the most commonly reported

reason by adults for failing to seek treatment and dropping out of treatment was their wanting to solve the problem on their own. They also noted that a major attitudinal barrier to seeking treatment was the individual's belief that they did not have an emotional problem requiring treatment.

Parents' attitudes also appear to influence their willingness to seek mental health services for their children. Stiffman, Pescosolido, and Cabassa (2004) described parents as gatekeepers to child mental health service utilization and found that parents' attitudes toward mental health services had a significant impact on their willingness to seek help for their children.

Other beliefs also influence mental health service utilization. Yeh and colleagues found relationships between type of parental belief about causes of mental health problems and service utilization (Yeh et al., 2005). Specifically, they reported that parents who believed that mental health problems were due to physical or trauma causes (biopsychosocial beliefs) were more likely to have utilized mental health services 2 years later. Furthermore, they found that parents who believed that mental health problems were due to the influence of friends (sociological beliefs) were less likely to have utilized services. Finally they reported that certain beliefs (physical, trauma, relational issues, and prejudice) were partial mediators in the relationship between race/ethnicity and utilization (Yeh et al., 2005). It is notable, however, that this study focused on parents of youth who were active in the public service sectors (i.e. juvenile courts, mental health, child welfare, etc). Alvidrez (1999) found that service utilization by family and friends and beliefs about causes of mental illness were significant predictors of utilization in African American, Hispanic, and Caucasian women. Pumariega, Rogers, and Rothe

(2005) related that minority families are often suspicious of the mental health care system, which results in their discomfort when seeking care in such a system. Specifically, African Americans' history with discrimination, oppression, and involuntary treatment; Hispanics' concern about language and cultural barriers; and Asian-Americans' experience of shame around mental illness, are likely contributing to their underutilization of mental health services (Pumariega, Rogers, & Rothe, 2005).

Stigma has also been identified as a major factor related to mental health service utilization in children (Chandra & Minkovitz, 2006) and adults (Gary, 2005). Both studies report that fear of being stigmatized prevents adults and children from utilizing mental health services. Owens and colleagues (2002) found that the most common type of perceived parental barrier when seeking services for their children was related to parents' perceptions of mental health services (including thoughts that treatment will not help, stigma, and not knowing who to trust). Gary (2005) suggested that minorities are often concerned about prejudice and discrimination and feel that they might suffer "double stigma" from being in a minority group and having a mental health problem and so are reluctant to seek mental health services.

In summary, the research reviewed above indicates that overall mental health services are significantly underutilized by adults and youth alike. Several factors including financial, structural barriers, race and ethnicity, socioeconomic status, gender, age, marital status, attitudes, beliefs, and stigma influence help-seeking intentions and service utilization at varying levels. Overall, in terms of youth utilization, it appears that young children, girls, minorities, and the uninsured are least likely to receive mental

health services and most youth receive initial mental health care from schools or their primary care doctors.

It is also notable that parents have a significant role in youth service utilization because in most cases, before children and adolescents can receive mental health care, parental consent must be obtained for their treatment. Thus, if parents are the unavoidable mediator between youth and psychological services, it is important for researchers to focus on the factors that influence parents' decisions to seek help for their children.

Recent epidemiological data on the lifetime prevalence of *DSM-IV* disorders in adults ages 18 and older indicated that about half of the U.S. population will meet criteria for a *DSM-IV* disorder in their lifetime with the first onset usually occurring in childhood or adolescence (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Thus it is essential that research focus on understanding how children and adolescents utilize mental health services and investigate ways to promote and increase utilization in children and adolescents. Furthermore, research has shown that parental barriers and attitudes for themselves differ from their barriers and attitudes toward treatment for their children, whereby parents are more willing to seek care for their children than themselves (Thurston & Phares, 2008). Thus, the influence parents have on youth mental health service utilization makes the understanding of parents' conceptions of mental health imperative. To better understand the factors influencing parents' decisions, clarification of a few related factors is necessary: help-seeking, service utilization, race, ethnicity, ethnic identify, and problem recognition.

Help-Seeking and Service Utilization

Across the literature, distinctions have been made between help-seeking and actual utilization of mental health services. Child-related help-seeking has been described as the act of seeking assistance (formal or informal) for an emotional or behavioral problem (Srebnik, Cauce, & Baydar, 1996). Service utilization, however, can be described as the actual utilization of specific services or programs to help resolve a perceived emotional or behavioral problem. Historically, research on help-seeking has focused solely on estimations of actual mental health service utilization (Cauce et al., 2002). More recently, the utility and importance of understanding how families seek help and the factors that contribute to their decisions to seek help have been underscored. A focus on help-seeking pathways will allow researchers to assess the underutilization dilemma at the beginning of the process when the problem is first recognized (Cauce et al., 2002).

Help-seeking typically precedes service utilization meaning that parents often seek help for their children and ultimately utilize mental health services as a result of their help-seeking. However, this is more of an ideal situation and is not always or even often the case. Sometimes parents are mandated by the juvenile justice system or child welfare to enroll their children in mental health care, thus in these situations services are utilized without ever actually seeking help voluntarily. On the other hand, parents may seek help for their children and never actually utilize professional services due to any number of barriers to service utilization. It is notable that several theoretical models on factors related to service utilization and help-seeking tend to use the terms interchangeably. The general theorized pathway to help-seeking has been largely agreed

upon by several researchers; however, there is very little research on how this model varies by race/ethnicity and other cultural factors. These models will be discussed in detail later in this review.

Race, Ethnicity, and Ethnic Identity

Defining race and ethnicity is common practice in research on minority issues. As Cauce and colleagues (2002) summarized, race has been viewed historically as biologically-based while ethnicity is often viewed as culturally-based; however there is no scientific basis for these definitional constructs. Despite the lack of scientific backing, race is still a convenient but significant way to examine important cultural differences among groups because identification with specific racial groups often shapes individuals' experiences, and therefore their culture. However, the use of race as a marker of ethnicity only hints at the individual's cultural practices and social norms (Cauce, Coronado, & Watson, 1998). Thus, measures of ethnic identity or cultural values should be used to provide information above and beyond what race classifications provide. Cultural values and beliefs provide indications of individuals' closeness to their ethnic group, however, there is often limited consensus on what values should be included in these scales and values differ among ethnic groups, therefore between-group comparisons of cultural values is not possible (Phiney & Ong, 2007). Ethnic identity, on the other hand, is a part of one's social identity and describes a committed sense of belonging to a group, culture, and particular setting (Phiney & Ong, 2007). Thus, this concept can be compared across groups and may be more beneficial in this regard. No studies to date have specifically examined the relationship between ethnic identity and help-seeking or mental health service utilization.

Several theories have been established to assist researchers in understanding the utilization patterns of individuals. Two major theories guiding the current study are discussed below.

Theories and Models

The Behavioral Model of Health Services Use was initially developed in the 1970's (Andersen & Newman, 1973). Since its conception, Andersen has made several revisions to the model with the primary concepts however, remaining constant (Andersen, 1995). This model helps guide the investigation of the various factors that influence utilization of health services. It is notable that the model was initially developed to investigate health service utilization but has since been used extensively in the mental health field to guide understanding of mental health service utilization (Snowden & Yamada, 2005). Furthermore, although this model focuses on service utilization in individuals, it is relevant to assessing the individual parental factors related to seeking mental health services for children. The basic framework of the model identifies how environmental factors (health care system and external environment), population characteristics (predisposing characteristics, enabling resources, and need), and health behavior (personal health practices and use of health services) influence several outcome variables (perceived health status, evaluated health status, and consumer satisfaction; Andersen, 1995). The model, however, is far from linear but rather includes feedback loops that show how the various outcome variables influence subsequent population characteristic variables and health behavior (see Figure 1).

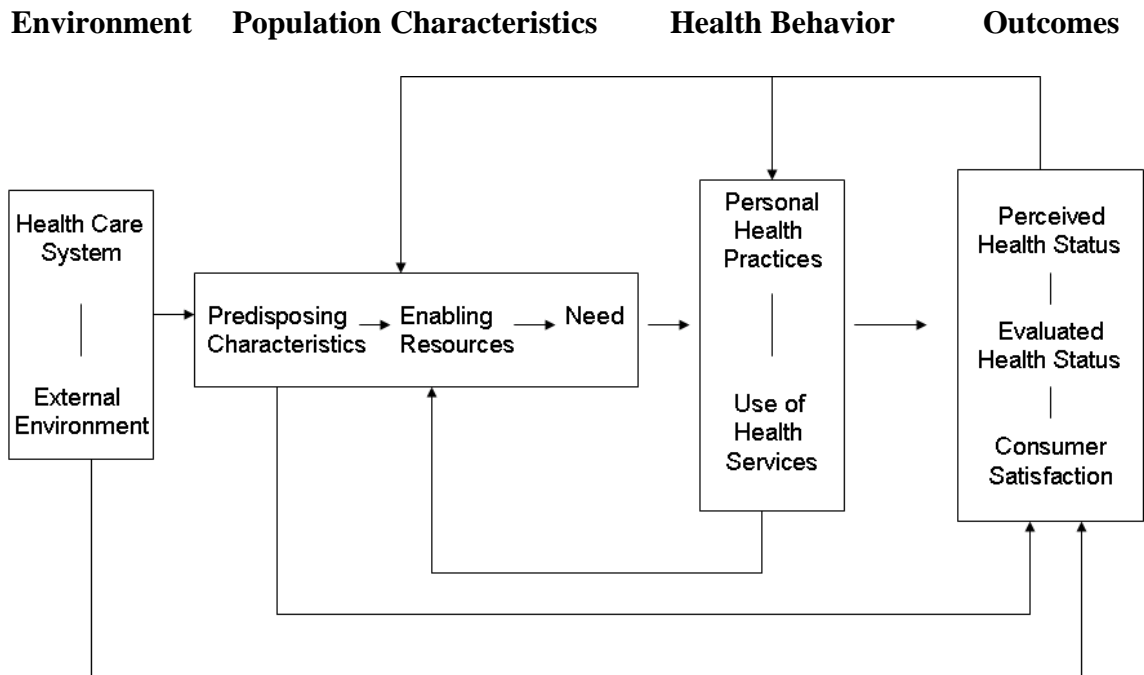


Figure 1. The Behavioral Model of Health Services Use (Andersen, 1995).

The two factors that influence utilization directly according to this model are population characteristics and outcomes. *Population characteristics* consist of predisposing characteristics, enabling resources, and need. Predisposing characteristics can be described as the factors that predispose an individual to use mental health services. These factors have been grouped into three categories: demographic characteristics, social structure, and beliefs. Some examples of demographic characteristics that can be measured include: age, gender, marital status, and past illness. Aspects of social structure include: education, race/ethnicity, occupation, family size, religion, and residential mobility. Finally, aspects of beliefs include: values concerning health and illness, attitudes toward health services, and knowledge about disease. Enabling resources are described as the conditions that allow a family to act on a value or satisfy a need

concerning health service use. Enabling resources have been grouped into two categories: personal/family and community resources. Some examples of personal/family resources that can be measured include: income, health insurance, and other source of third party payment. Community resources include: ratios of health personnel and facilities to population, price of health services, region of country, and urban-rural character of the community. The final influence on service utilization, according to this model, is the illness/need level. This level can be described as the individual's or family's perception of their illness or evaluated illness. Illness level is grouped into two categories: perceived and evaluated need levels. Some examples of perceived need include: disability, perceived symptoms, diagnoses, and general state. Examples of evaluated need are: evaluated symptoms and diagnoses. *Outcomes* consist of perceived health status, evaluated health status, and consumer satisfaction. Perceived and evaluated health status are consistent with the descriptions of perceived and evaluated need levels above, with the former representing an individual's or family's perception of their health status and the latter representing a professional's assessment of an individual's health status. Consumer satisfaction is also relevant given the knowledge that outcome of services influence future use of that service. Although this model has been useful in understanding service utilization patterns, more recent theoretical developments appear to better account for both service utilization and help-seeking patterns.

The second model guiding this study was described by Cauce et al. (2002) based on Andersen and Newman's model described above and Goldsmith's 1988 model. The Youth Help-Seeking and Service Utilization Model delineates the stages in the help-

seeking pathway for youth and describes factors affecting movement through each stage (Cauce et al., 2002). In addition, this model indicates the influence of social networks as a barrier or facilitator of service utilization. Three major stages along the path to help-seeking and utilization are described including: Problem recognition, decision to seek help, and support network and service utilization patterns. According to the model, movement along the stages is determined by illness profile, predisposing characteristics, and barriers and facilitators to care. These factors are shown in squares with dashed lines to indicate that they influence the major factors (see Figure 2). The illness profile variables include: clinical assessment of need, perceived (subjective) need, and family characteristics such as parental education, family size, marital conflict, and parental psychopathology. The predisposing characteristics defined as stable factors that influence readiness to seek help include: demographic characteristics such as age, gender, and ethnicity, and sociocultural values and beliefs such as attitudes, knowledge, and acculturation. Finally, the barriers and facilitators of help-seeking variables include: community and social network influences, economic factors such as income and health insurance, service characteristics such as access and availability, and policy variables.

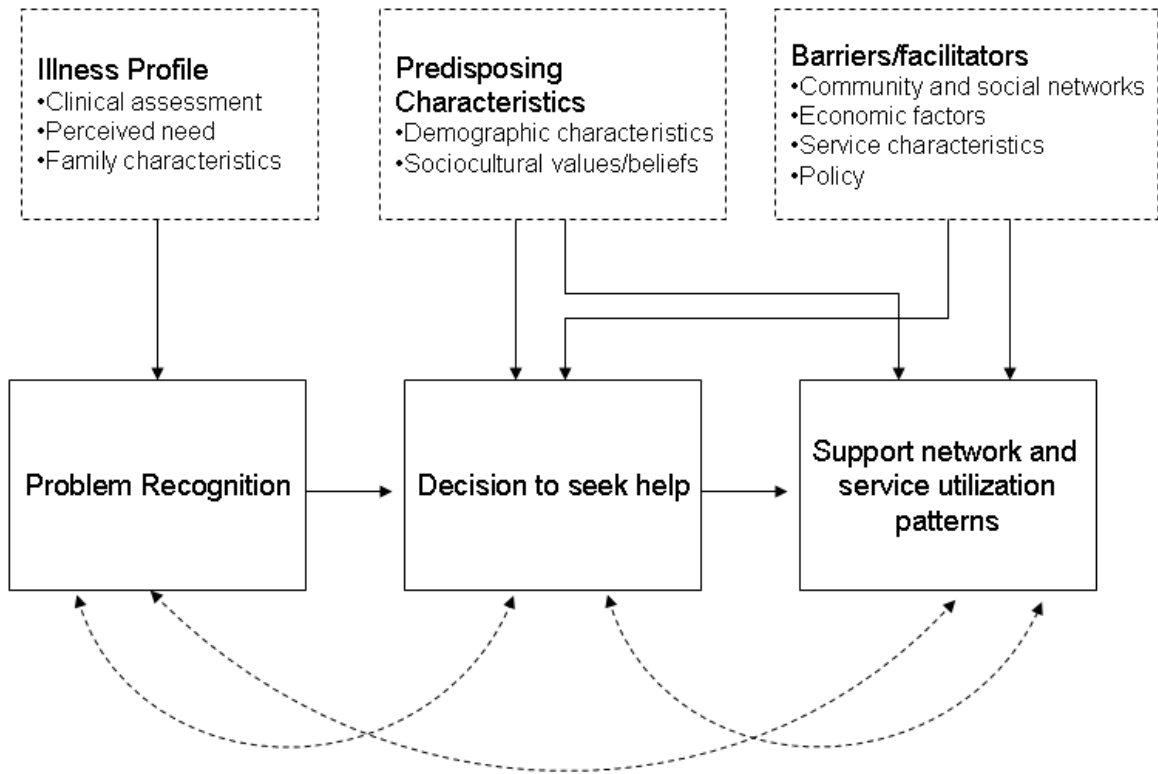


Figure 2. The Youth Help-Seeking and Service Utilization Model (Srebnik et al., 1996; Cauce et al., 2002).

Since its inception, the Youth Help-Seeking and Service Utilization Model has been modified slightly to illustrate how the three major stages (problem recognition, decision to seek help, and service selection and utilization) are theorized to be interrelated (Cauce et al., 2002). These updates to the model are illustrated using dashed double-headed arrow lines (see Figure 2). In addition, Cauce and colleagues (2002) also argued that culture and context have a pervasive influence on the entire help-seeking model and as such cannot be pinpointed to any specific stage in the help-seeking process. Furthermore, since culture and context are so pervasive, Cauce and colleagues argued that minority and non-minority help-seeking pathways should be studied separately. The current study used these theoretical models to guide the investigation of parental

influences on youth utilization of mental health services. The study of the entire Youth Help-Seeking and Service Utilization Model is beyond the scope of this study.

Therefore, the first and arguably, most important, step of the help-seeking process was investigated (i.e. problem recognition). In addition, factors that tied this first step (problem recognition) to the next step (decision to seek help) were also examined in the current study.

Problem Recognition

The recognition of a problem is the necessary first step before help-seeking can occur (Cauce et al., 2002). Thus, problem recognition is likely one of the most important steps in the help-seeking and service utilization process. Once services have been utilized, other factors may influence continued use of services. However, before services are utilized the second, third, fourth or more time, individuals must recognize the return of the previous problem or the emergence of a new problem, thus problem recognition must occur again. Consequently, each time help is sought by an individual or family, that individual, family, or a third entity (such as teachers or the court system) must recognize a problem. As reviewed by Sayal (2006), fewer than half of the parents with a child with a disorder recognize a problem in their child. This finding suggests a significant barrier in the pathway to care and eventual service utilization (Sayal, 2006).

Problem recognition indicates a need for care, which can be defined in two ways: epidemiologically defined need and perceived need (Cauce et al., 2002).

Epidemiologically defined need involves detailed clinical assessment by a professional, typically using measures based on the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* or *International Classification of Diseases (ICD)*. Perceived need,

however, involves the subjective perception of distress by the individual or caregiver. This subjective perception of need may be a stronger predictor of problem recognition than objective need due to the family's own understanding of problematic behaviors (Srebnik et al., 1996). Thus, having a better understanding of the factors influencing parents' perception of need is vital. According to the Youth Help-Seeking and Service Utilization Model problem recognition is influenced by several factors: clinical assessment of need, perceived need, and family characteristics.

Clinical assessment of need. Factors influencing the clinical assessment of need include symptoms/behaviors, diagnoses, and functional impairment (Srebnik et al., 1996). In their review, Srebnik and colleagues reported that symptom severity often distinguished between those youth who utilize formal mental health services (due to greater severity of problems) versus those who use informal sources of help (due to lower severity). Given that problem severity can be assessed objectively (by the professional) and assessed subjectively (by the family), it is possible that problem severity is only related to utilization of services if parents/caregivers also perceive the problem as severe.

Functional impairment is another factor that can be assessed objectively and subjectively. Objectively, functional impairment is an important aspect of assessing specific mental health problems, in addition to symptoms and behaviors, using the diagnostic criteria of the *DSM-IV*. All mental health disorders in the *DSM-IV* require that the symptoms experienced by the individual cause clinically significant distress and/or impairment in several areas of functioning including social, occupational, or other important areas of functioning (American Psychiatric Association, 2000). In children and adolescents, functional impairment typically includes problems with academic

performance, and relationships with peers and adults at home, school, and in the community (Powers et al., 2005). In general, clinical assessment of need involves a professional's evaluation of the youth's symptoms, behaviors, and impairment. This is in contrast to perceived need discussed below.

Perceived (subjective) need. This concept involves the parents'/caregivers' impression of their youth's well-being, symptoms, behaviors, and impairment and their definition of a problem or set of problems as mental health concerns. As reviewed above, subjective perception of need may be a stronger predictor of problem recognition than objective need (Srebnik et al., 1996). Thus, subjective/perceived need may be one of the most important factors in understanding parental problem recognition. Power and colleagues hypothesize that problem recognition by the family may serve as a mediator between problem severity as assessed by the professional and service utilization (Power et al., 2005). This relationship has not yet been investigated. Factors influencing perceived need include: symptoms, behaviors, functional impairment, caregiver burden, and problem threshold. The first three factors (i.e. symptoms, behaviors, and functional impairment) are the same factors described above, except they are now being interpreted by the family rather than professionals. In a review, Broadhurst (2003) reported significant divergence between lay and professional definitions and rating of severity of problem behaviors. Furthermore, an investigation of parental problem recognition revealed that parents were more likely to recognize that their child had a problem when they described more child symptoms or a greater impact of the child's symptoms on their family (Teagle, 2002). A study of Latino families also showed that perceived impairment and having disruptive behavior problems were the strongest predictors of service

utilization (Alegria et al., 2004). In a review of studies published from 1992-2001, researchers found that while child psychopathology was not sufficient to predict problem recognition, help-seeking was enhanced with increased severity, comorbidity, and persistence of problems over time (Zwaanswijk, Verhaak, Bensing, Ende, & Verhulst, 2003). In addition, while presence of school and medical problems increased help-seeking for child psychopathology, presence of school problems did not increase parental problem recognition (Zwaanswijk et al., 2003). The researchers also reported that the effects of type of problem (externalizing versus internalizing) on help-seeking patterns were still inconclusive. However, Zimmerman (2005) reported significant gender and race differences in service utilization based on problem type in 7-14 year olds with symptom severity controlled. They found that girls were less likely to receive treatment overall. More specifically, they reported that girls were much less likely (1:5) to obtain treatment for externalizing problems than boys. Girls were also somewhat less likely (1:2) to obtain treatment for depression than boys. Problem type also influenced race differences in utilization. Specifically, Zimmerman reported that African American children were much less likely to obtain treatment for depression but no less likely to obtain treatment for behavior disorders. Interestingly, in the entire sample, they also found that the presence of the father in the home reduced the likelihood that children would obtain treatment, especially for depression (Zimmerman, 2005).

Caregiver burden is another factor that influences parental perception of need. Angold and colleagues (1998) found that the strongest predictor of specialty mental health service use was perceived parental burden, followed by child symptom scores. Similar results were found by Teagle (2002) who reported that the impact of children's

mental health problems on the family was the strongest predictor of parents' perception of their child's problem (i.e. problem recognition). These results were also confirmed by Zwaanswijk and colleagues (Zwaanswijk et al., 2003). In a separate study of elementary school-aged children at high risk for ADHD, higher levels of parental/caregiver strain predicted formal service utilization (Bussing et al., 2003). It is notable, however, that caregiver strain/burden was specific to the impact that children's mental health problems had on the family/caregiver. It is likely that higher levels of overall stress may actually have a negative influence on problem recognition, as parents under significant stress may be less likely to notice their children's distress (Cauce et al. 2002). Accordingly, it is likely that caregivers' stress caused by the youth's emotional or behavior problems is related to increased utilization of formal services while overall caregiver stress may be related to reduced sensitivity to the youth's problems and therefore decreased utilization of services. Consequently, a thorough understanding of caregivers' stress/burden in relation to their child's illness as well as overall parental stressors is important. Additional stressors impacting parental problem recognition will be discussed in the next section.

The final factor documented as influencing parental perception of need is problem threshold. This concept can be described as the classification of a set of behaviors as a mental health concern by the caregiver/family (Srebnik et al., 1996). This factor is important in parents' decision to seek help for their children from a mental health professional versus other professionals (such as a physician if the problem is perceived as a health concern) or laypersons (such as friends for general parenting advice). Thus the

identification of behaviors or emotional problems as “mental health” difficulties will not only influence the decision to seek help but also influences actual service utilization.

Problem threshold has been shown to vary across various cultural groups (Weisz & Eastman, 1995). Specifically, Lambert and colleagues (1992) found that Jamaican and American adults had varying thresholds as to what problems they considered abnormal. More specifically, Jamaican teachers and parents rated children’s problems as less unusual than American parents and teachers (Lambert et al., 1992). More recently, a study by Roberts and colleagues found differences in European, African, and Latino American parents’ ratings of their adolescents, despite similar prevalence rates of diagnosis within the past year (Roberts et al., 2005). Specifically, Roberts and colleagues found that European American parents were more likely to report that their adolescent had a mental health problem in the past year and rated their adolescent’s mental health as worse than both Latino and African American parents. Problem threshold has also been shown to vary across gender. In preliminary research, Singh (2003) reported that fathers and mothers differed in their categorization of Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms as problematic, whereby fathers were less likely to classify symptoms of inattention and hyperactivity as needing medical attention. In a study of adolescent behavior, researchers indicated that fathers reported significantly fewer problem behaviors than mothers reported (Seiffge-Krenke & Kollmar, 1998). Furthermore, the authors found that mothers’ reports were highly correlated with adolescents’ reports of their own behavior while fathers’ reports were not significantly correlated with adolescents’ reports. Other factors influencing parental problem recognition have been described as family characteristics.

Family Characteristics. According to the Youth Help-Seeking Model (Cauce et al., 2002), the factors influencing problem recognition in this area consist of structural and relational characteristics. These variables include: family size, parental education, family/marital conflict, warmth/cohesion, disorganization, abuse/neglect, parental psychopathology, and criminality. Zwaanswijk and colleagues found that education level and family stress influenced help seeking while parental psychopathology increased problem recognition but not utilization (Zwaanswijk et al., 2003). With regard to family size, presence of siblings reduced parental recognition of child symptoms as problematic but did not decrease the likelihood of help seeking. Finally, examination of type of abuse indicated that physical and sexual abuse resulted in increased service utilization while neglect was related to decreased help-seeking. The relational factors (including family size, family/marital conflict, warmth/cohesion, and disorganization) are important because they may influence the extent to which the child's symptoms are visible and identifiable by the caregivers (Srebnik et al., 1996). The other factors (abuse/neglect, parental psychopathology, criminality, and low parent education) are important because they may influence the extent to which caregivers interpret their child's behavior as problematic (Srebnik et al., 1996).

Decision to Seek Help

When a parent has recognized a problematic behavior, the next step involves deciding what to do. This decision usually falls into a dichotomous decision: deciding to seek help or deciding not to seek help. Furthermore, the decision to seek help can often range from formal sources (psychologist, psychiatrist, etc) to informal sources (self-help books, friends and family, etc). Several factors that may influence the help-seeking

decision process include: knowledge of the problem, health locus of control, self-efficacy, and acculturation (Power et al., 2005). The current study examined one of these factors (knowledge) which is hypothesized to have a direct impact on problem recognition. As previously discussed, knowledge of a problem has been hypothesized to have an influence on parents' decision to seek help. However, this study posited the influence of knowledge of a behavior problem on parental recognition of symptoms. This study also examined various factors related to problem recognition that may impact parents' decisions to seek formal or informal help.

Knowledge of Problem. Preliminary evidence has shown that parental knowledge of specific problematic behaviors has an influence on service utilization and help-seeking patterns in youth (Power et al., 2005). Based on the model proposed, understanding a particular problem behavior and having knowledge of a how to treat the problem may have an influence on parents' decision of whether to seek help or not (Power et al., 2005). However, few studies have examined this concept. Research by Bussing and colleagues found ethnic differences in knowledge of ADHD among African American and Caucasian parents (mostly mothers). They found that fewer African American parents had heard of ADHD, knew some or a lot about ADHD, and were more likely to attribute ADHD to excess sugar in the child's diet than Caucasian parents (Bussing, Schoenberg, & Perwien, 1998). Although knowledge of a problem has been categorized as contributing to parents' decision to seek help (Power et al., 2005), it is likely that knowledge of a problem is initially related to problem recognition as well. Thus, knowledge of a problem was investigated further in the current study.

The Current Study

The current study aimed to investigate the factors related to youth problem recognition in African American and Caucasian parents through the use of vignettes. Vignettes have been used in various community-based studies to determine parents' (usually mothers') help-seeking patterns and intentions to utilize mental health services in the future (Raviv et al., 2003; Shah et al., 2004). Vignettes can be used to control variables in such a way that participants are exposed to the same stimuli (rather than reporting on their reactions to their own children with varying degrees of behavior problems). Previous research indicates decreased help-seeking patterns and mental health service utilization by ethnic minorities. Some studies show that this difference in race and ethnic groups disappears after socioeconomic status has been accounted for while other studies do not. In addition, although several studies have hypothesized differences in help-seeking and utilization, very few studies attempt to explain these differences empirically. This study also aimed to identify factors affecting the decision to seek formal versus informal help when a mental health problem has been identified. The factors that were examined in this study are illustrated in the model below and are consistent with the first portion of the Youth Help-Seeking & Service Utilization Model (Cauce et al., 2002).

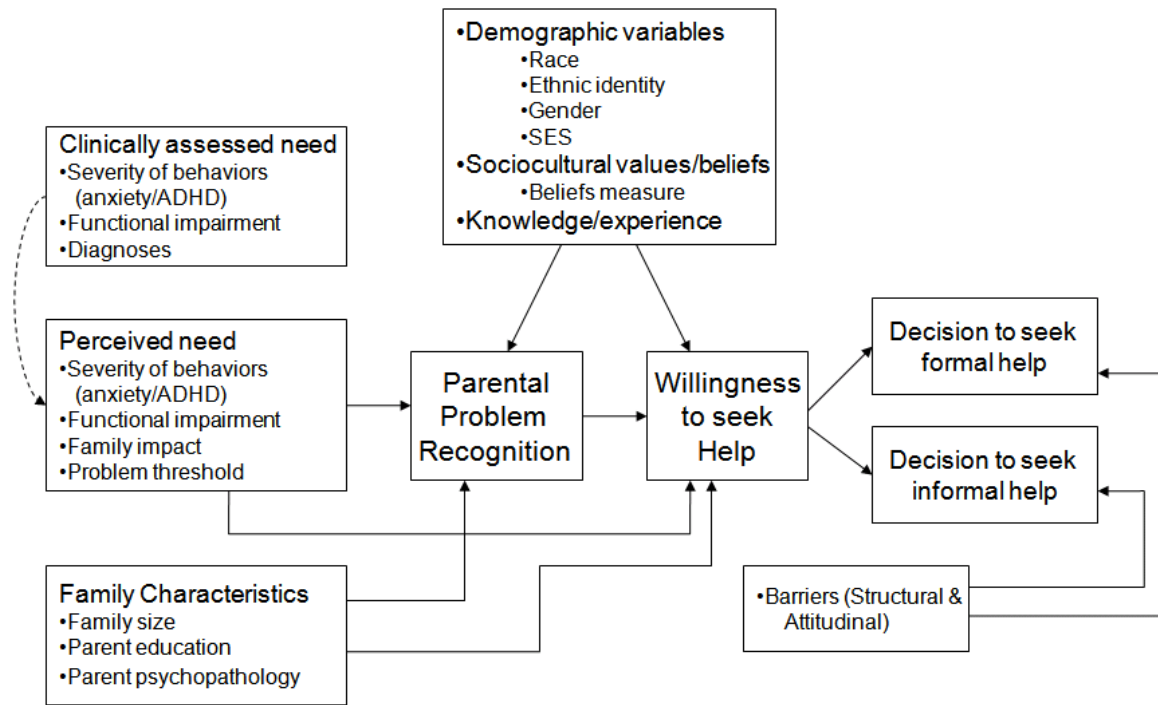


Figure 3. Proposed research model

The specific aims and hypotheses of this study are as follows:

- 1) **To investigate the relationship between parental problem recognition and type of problem (anxiety-internalizing, attention deficit/hyperactivity disorder - externalizing, and control).** It is hypothesized that parents will be more likely to recognize the externalizing and internalizing vignettes as problems than the control vignette.
- 2) **To predict the relationship between parental problem recognition and willingness to seek help.** Based on previous research (Cauce et al., 2002), it is hypothesized that parents who recognize a mental health problem will be willing to seek help, irrespective of the type of problem.
- 3) **To explain the effect of youth gender on parental problem recognition and willingness to seek help.** Based on previous research (Zimmerman, 2005; Zwaanswijk

et al., 2003), it is hypothesized that parents will be more likely to recognize problems and more willing to seek help for boys than for girls (i.e. for male vignettes versus female vignettes).

4) To explain the effects of perceived need (severity, problem threshold, functional impairment, and family impact) on problem recognition and willingness to seek help. Based on previous research (Alegria et al., 2004; Power et al., 2005; Teagle, 2002), it is hypothesized that parents who endorse higher levels of perceived severity, problem threshold, functional impairment, and family impact would be more likely to recognize problems and more willing to seek help.

5) To explain the effects of family characteristics (family size, parent education, and parent psychopathology) on parental recognition of youth symptoms and willingness to seek help. Based on previous research (Srebnik et al., 1996; Zwaanswijk et al., 2003), it is hypothesized that parents who report smaller family size, higher levels of education, and current psychopathology would be more likely to recognize problems and more willing to seek help.

6) To determine which demographic variables (parent race, ethnic identity, gender, and SES) are most predictive of parental recognition and willingness to seek help. Based on previous research (Dobalian & Rivers, 2008; Mahalik et al., 2003; Pumariega et al., 1998; Roberts et al., 2005), it is hypothesized that African Americans, fathers, and parents of lower SES would be less likely to recognize problems and less willing to seek help. Although this has not been previously investigated, it is hypothesized that African Americans with higher ratings of ethnic identity and Caucasians with lower ratings of ethnic identity will be less likely to recognize problems and less willing to seek help.

This hypothesis is based on previous research indicating that African Americans report higher levels of stigma and decreased levels of voluntary mental health service utilization than Caucasians (U.S. DHHS, 2001). Thus, if findings are indeed due to ethnicity, it is likely that those African Americans who show higher levels of ethnic identity and Caucasians with lower levels of ethnic identity may be less likely to recognize problems, and less willing to seek help.

7) To determine which sociocultural beliefs (biopsychosocial, sociological, and spiritual/nature disharmony) are most predictive of parental problem recognition and willingness to seek help. Based on previous research (Yeh et al., 2005), it is hypothesized that parents who endorse biopsychosocial beliefs (physical causes, personality, relational issues, familial issues, and trauma) would be more likely to recognize problems in youth and more willing to seek formal help. On the other hand, parents who endorse sociological beliefs (friends, American culture, prejudice, and economic problems), and spiritual/nature disharmony beliefs (spiritual causes, and nature disharmony) would be less likely to recognize problems and more willing to seek informal help.

8) To determine the influence of previous experience on parental recognition of youth problems. Based on previous research (Power et al., 2005), it is hypothesized that parents who have had previous experience with anxiety and ADHD will be more likely to recognize the anxiety and ADHD vignettes as problematic.

9) To determine the influence of parental race and gender on type of beliefs endorsed, strength of beliefs endorsed, and previous experience with mental health disorders. Based on prior research (Yeh et al., 2005), race and gender differences in

type and strength of beliefs endorsed are hypothesized, where, fathers and African Americans will endorse more sociological and spiritual/nature disharmony beliefs and less biopsychosocial beliefs than mothers and Caucasians. Furthermore, based on previous research (Bussing et al., 1998), it is hypothesized that race and gender differences will be found in previous experience; where fathers and African Americans would have less experience with mental health disorders than mothers and Caucasians.

10) To investigate the influence of parental race and gender on perception of barriers (financial, structural, and attitudinal). Based on previous research (Sareen et al., 2007), it is hypothesized that parents will endorse more attitudinal barriers than structural and financial barriers. Also based on previous research (Thurston & Phares, 2008), fathers are hypothesized to endorse more attitudinal barriers than mothers and African Americans will endorse more structural barriers than Caucasians.

11) To investigate the relationship between various barriers and parental help-seeking from formal sources, informal sources, and parental ethnic identity. Based on previous research (Mackenzie et al., 2006), it is hypothesized that parents who perceive more barriers overall, will be less willing to seek formal help, irrespective of problem type.

12) To investigate the influence of ethnic identity, barriers, and beliefs on intentions to utilize mental health services in the future. Based on previous research (Thurston & Phares, 2008; Yeh et al., 2005), it is hypothesized that endorsement of fewer barriers, stronger biopsychosocial beliefs, weaker sociological beliefs, and weaker spiritual/nature disharmony beliefs will predict higher intentions to utilize mental health services in the future.

In order to answer these research questions appropriately, the vignettes that were designed to be used in this study were piloted with psychologists and psychology doctoral students. The purpose of this pilot study was to ensure that the vignettes, which were created by the researcher, actually described the types of behaviors that were intended (i.e. validity of the vignettes). This pilot study focused on clinically assessed need, meaning that the vignettes were examined to determine if they met criteria for various types of disorders as assessed by clinicians. The actual study, however, focused on subjective need. Thus, vignettes that were clinically assessed as problematic were examined by parents, to determine if parents subjectively perceive the vignettes as problematic. Below is a description of the pilot study.

Pilot Study

Participants – pilot study. A total of 16 participants (7 psychologists and 9 psychology doctoral students) completed the pilot study. All psychologists were licensed professionals who work with children, adolescents, and their families and practice in academic or private settings. The doctoral students had a minimum of two years completed in their psychology program and over one year of clinical experience in working with youth and their families.

Measures – pilot study. Vignettes were created based on criteria from the *DSM-IV* (American Psychiatric Association, 2000) and the *ICD-10* (World Health Organization, 1993). The names of children used in the vignettes were selected from the most popular names for boys (Michael, Chris, Joshua) and girls (Ashley, Brittany, and Jessica) in Florida from 1990-1999 (Popular baby names, 2007). Five vignettes were created initially that described one internalizing (anxiety), one externalizing (ADHD),

one pediatric health disorder (Juvenile Rheumatoid Arthritis), one comorbid with health and internalizing disorders (Diabetes and Depression), and one control with no diagnosis. After each vignette, three follow-up questions were asked about ratings of severity of problems, abnormality of problems, and categorization of the vignettes into one of five groups (internalizing, externalizing, pediatric, comorbid, and no diagnosis). The severity and abnormality questions were rated on a likert scale ranging from 1-5, with 1 being not at all serious/abnormal to 5 being extremely serious/abnormal.

Procedures – pilot study. A total of 23 psychologists and psychology graduate students who work with youth and their families were identified and asked to participate in this study. A total of 16 of these individuals completed the pilot study, resulting in a participation rate of 70%. Participants were asked to read each vignette and answer the questions immediately following the vignette. Initial pilot study testing revealed that including all five vignettes and the study questionnaires would increase overall participant involvement time by about 10 minutes, thus two of the five vignettes were dropped from the actual study. These deleted vignettes included the comorbid and the pediatric health vignettes. Although it is important to determine how parents utilize services for mental health and physical health, the focus of this study is on service utilization and help-seeking for mental health problems. Thus dropping these two vignettes did not affect the core purpose of this study.

Results – pilot study. All participants correctly matched the three vignettes to the appropriate categories (i.e. the externalizing vignette (ADHD) was correctly identified as externalizing, etc). A paired samples T-test indicated that the severity ratings of the anxiety vignette ($M = 3.25$, $SD = 0.45$) was not significantly different from

severity ratings of the ADHD vignette ($M = 3.12$, $SD = 0.34$), $t(15) = 1.00$, $p = .33$. Another paired samples T-test indicated that the abnormality rating of the anxiety vignette ($M = 3.06$, $SD = 0.68$) was significantly higher, albeit slightly, than the abnormality rating of the ADHD vignettes ($M = 2.81$, $SD = 0.54$), $t(15) = 2.24$, $p = .04$. However, since these findings were marginal and actual study participants will be asked to rate the severity and not the abnormality of the vignettes; both vignettes were retained for use in the actual study. As intended the severity ($M = 1.31$, $SD = 0.48$) and abnormality ($M = 1.19$, $SD = 0.40$) ratings of the control vignette were significantly different from the severity and abnormality ratings of both the anxiety and ADHD vignettes. All analyses were significant at the .000 level. These analyses indicate that the anxiety and ADHD vignettes meet criteria for clinically assessed need as illustrated by clinicians' ratings of greater severity and abnormality than on the control vignette. Thus, the control vignette is indeed a control, as it was rated as not meeting criteria for any diagnosis. These vignettes were used in the actual study to assess parents' subjective perception of need.

Method

Participants

A total of 287³ parents with at least one child between the ages of 2 and 21 years old were recruited to participate in this study. A total of 46% of the participants were male and 54% were female. The sample comprised of parents of various racial groups with oversampling for African American and Caucasian parents, including 0.3% Asian, 43.9% Black/African American, 51.6% Caucasian, 0.3% Native Hawaiian/Pacific Islander, and 3.8% Biracial/multiracial. Additionally, 9.1% of the sample described their ethnicity as Hispanic. No parents were denied participation in the study, however, only the data from the African American and Caucasian participants were used in the current analyses. This procedure was because the focus of the study was a more concise comparison of the unique factors impacting these minority and majority groups. Thus the final sample used in the following analyses was 251 parents; 49% African American and 51% Caucasian.

Parents ranged in age from 20 to 66 years of age, with a mean age of 40 years (SD = 8.15). The sample consisted of approximately equal numbers of fathers (49%) and mothers (51%), and the majority of the parents (73.3%) were married, 11.2% were single with/without a partner, 11.2% were divorced, 3.2% were separated, and 1.2% were

³ There were 289 questionnaires returned, but two participants were left out of all the analyses because one participant only completed 37% of the questions and the other participant's child was only 1 year old, thus did not meet study criteria.

widowed. The mean education of fathers was 16.36 years (SD = 2.20) and mothers had a mean education of 15.47 years (SD = 2.26). A total of 8.8% of parents were receiving some kind of public assistance. Based on Hollingshead criteria for socioeconomic status (Hollingshead, 1975), the social strata for the average participating parent represented medium businesses, minor professionals, and technical jobs (M = 47.76; SD = 10.18). Additionally, the average household income for the sample ranged from \$50,001-\$65,000 a year.

Parents had an average of 2.48 children (SD = 1.31). A total of 52% of their children were female and 48% were male. In addition, 45.8% of the children were African American, 45.8% Caucasian, and 8.4% biracial/multiracial with 1.8% describing their children's ethnicity as Hispanic. The children described in the current sample ranged in age including, 8.5% infants/toddlers (0-2 years old), 14.3% preschoolers (3-5 years old), 35.8% school age (6-12 years old), 16.3% adolescents (13-17 years old), and 25.1% adult children (18 years and above). Note that all parents had at least one child between the age of 2 and 21.

A majority of parents had physical health care insurance for themselves (90.8%) and their children (94.8%). When asked about mental health care insurance, there was more variability in responses. A total of 72.1% of parents had insurance for themselves, 14.7% did not, and 11.6% did not know if their insurance covered mental health needs. Similarly, 75.3% of parents had mental health insurance coverage for their children, 9.6% did not, and 12.7% did not know if their insurance covered mental health care needs for their children.

Based on a power analysis with power set at .80, alpha set at .05, and expecting a medium effect size, 30 participants per group were required to test the hypotheses adequately via regressions and analyses of variance (Cohen, 2003). Since the focus of this study was to examine similarities and differences between African American and Caucasian mothers and fathers who read male and female vignettes (i.e. 2 X 2 X 2 model), a minimum of 240 parents (60 per race/gender group) was necessary to test for a medium effect size. Thus, the final sample was sufficient to test the hypotheses adequately.

The demographic information for parents by gender and race is presented below (see Table 1). Similarities and differences in these groups are discussed further in the Results section.

Table 1
Demographic Variables for Parents by Race and Gender

Variable	Statistic	Black Fathers (n = 60)	White Fathers (n = 63)	Black Mothers (n = 63)	White Mothers (n = 65)
Age	Mean	39.36	42.05	37.84	40.73
	SD	9.89	6.69	8.21	7.13
Socioeconomic Status	Mean	49.03	51.22	44.92	46.02
	SD	9.38	9.19	10.96	10.08
Years of Education	Mean	16.03	16.67	15.69	15.26
	SD	2.34	2.02	2.22	2.29
Number of Children	Mean	2.88	2.27	2.52	2.26
	SD	1.53	0.97	1.58	0.97

Note. SD = Standard deviation

Procedures

Parents were recruited to participate in the study through the use of flyers, advertisements, and direct invitation (snow-balling and direct approach). Flyers were

displayed on notice boards at various schools and colleges, children's hospitals and clinics, grocery stores, community centers, libraries, and housing/apartment complexes. As recruiting minorities in research is often a difficult task and recruiting low SES minorities even more taxing (Sadler et al., 2005), extra effort was made to recruit a wide variety of individuals from varying SES ranges by placing flyers in well-off, moderate, and impoverished areas. Similarly, advertisements were placed on several internet listserves that targeted both African American and Caucasian parents (FAMU alumni listserve, 100 black men of Tampa bay, and USF Alumni listserve). A total of 66% of participants were recruited through direct invitation, 13% through the Boys and Girls Clubs, 9% through community organizations, 6% through online ads, 3% had participated in previous research & agreed to be conducted for future studies, and 3% saw the flyer for this study and expressed interest.

In addition to flyers and advertisements, two direct approach methods were used to recruit parents for this study. The snow-ball method was used, where parents who participated in the study and non-parents who were approached to participate in the study were asked to invite other parents to participate. Leaders of various organizations (fraternity and sorority groups, churches, community organizations, and parent groups) were also approached and the parents at these organizations were invited by the researcher or the leader of the organization to participate in the study. Additionally, parents whose children attended after school programs at several Boys and Girls Clubs in the local area were approached and invited to participate.

Effort was made to recruit all parents (biological, step, and/or adoptive parents) who had at least one child between the ages of 2-21 and at least monthly face to face

contact with their child within this age range. These criteria were selected to ensure that parents would still have an active role in the child's life and the lower age limit was chosen because empirically supported treatments such as Behavioral Parent Training usually begin at age two (Barkley, 1997). Parents were not required to be dyads. This decision was important in order to ensure that proportions of African American families would not be excluded, given that 52.5% of African American children are being raised by single mothers (Hofferth, Stueve, Pleck, Bianchi, & Sayer, 2002).

Given that this study was based on a community sample and because participants were only asked to complete questionnaires, data collection took place largely through the mail and drop off boxes at community sites. Although no order effects were expected, questionnaires and vignettes were presented to participants in randomized order so that possible biases due to order effects were minimized. Those parents who called or sent an inquiry via email, had the requirements of the study reiterated to them and interested participants were asked to provide their mailing address. The questionnaires along with a cover letter explaining the study (Appendix A), a business reply envelope, and business reply postcard (for the drawing) were then mailed to them. Interested participants who were approached directly had the option of completing the questionnaires immediately, dropping off the questionnaires in the boxes at various sites, or mailing the completed questionnaires back in the reply envelope provided. If participants chose to complete the questionnaires immediately, their postcards were immediately separated from their survey responses to protect their privacy. Questionnaires took approximately 20-30 minutes to complete.

A total of 806 surveys were distributed and 289 were returned. Thus, there was a 36% participation rate. This number is consistent with other survey research in the community with adults (Kropf & Blair, 2005; Shumway, Unick, McConnell, Catalano, & Forster, 2004). After the participant target number was reached (30 parents from each vignette gender, parent gender, and racial group), the data were entered into SPSS for analysis. All participants who provided a mailing address via the index cards were entered into a drawing for one of six prizes including: one \$100 monetary prize, two \$50 monetary prizes, and three \$25 gift certificates from merchants in the surrounding community. Prizes were mailed out to winners via standard mail. Upon completion of the study (when the results have been defended), a synopsis of the results and a referral list of mental health facilities (Appendix B) will be sent to all participants who provided physical mail or email addresses in case they wish to seek mental health treatment for themselves or for their children in the future.

Measures

Vignettes. Please refer to pilot study section above for a description of the creation and piloting of the vignettes. Three vignettes were used in the final study. These vignettes included an internalizing (anxiety), an externalizing (ADHD), and a “no diagnosis” (i.e. control) vignette. The three vignettes were identical for all study participants, with the exception of the child’s gender, which was randomized among all the parents by group. Thus, approximately equal numbers of black fathers, white fathers, black mothers, and white mothers completed the three vignettes with either all boy or all girl descriptions (for example: 30 black fathers completed all boy vignettes and another 30 black fathers completed all girl vignettes). This procedure was used in order to allow

for ease of data collection and to ensure that parents were not aware of the researcher's motive to examine gender differences. Follow-up questions were included after each vignette. Participants were asked to rate the severity of problems, concern about problems, impact of problems on the hypothetical child's daily activities, and impact of problems on the hypothetical child's family. Participants rated their responses on a likert scale ranging from 1-5, with 1 being not at all to 5 being extreme. Participants were then asked to determine if the child had a mental health problem, if they would seek help for the child, and the likelihood of seeking help from several different sources. Appendix C shows the finalized boy anxiety vignette with follow-up questions. The additional vignettes (ADHD and no diagnosis) are shown in Appendix D.

Demographics. The demographics measure included basic background questions about each parent's gender, age, marital status, annual income, zip code, insurance, public services received, education (for self and spouse/partner), occupation (for self and spouse/partner), age, gender, and race/ethnicity of children, and number of individuals in their household (Appendix E). The mothers and fathers who participated in this study were not necessarily dyads; therefore demographic information on both the parent and his/her spouse/partner were collected from the parent who completed the questionnaires. Socioeconomic status (SES) was derived based on household gender, marital status, education, and occupational information obtained from this measure based on the Hollingshead four factor index of social status (Hollingshead, 1975).

Utilization. Participants completed a measure about their history of mental health service utilization for themselves and their children. This measure is based on Burns et al., (1995). Parents were asked if either they or their children had ever seen or been

referred to see a mental health professional for emotional, behavioral, alcohol, or drug related problems. Participants were also asked about satisfaction with previous services, current need for psychological care, and their likelihood of seeking care for themselves or their children. In addition, parents were asked about their children's history of service utilization from specific sources including health, mental health, education, religious, child welfare, and juvenile justice sectors. Finally, parents were asked if they had any personal or professional experience with five psychological disorders: ADHD, anxiety disorder, depression, ODD, or alcohol/drug abuse (Appendix F).

Multigroup Ethnic Identity Measure – Revised (MEIM-R; Phinney & Ong, 2007). The original version of this measure was developed by Phinney (1992). As reviewed by Avery and colleagues (2007), the original measure was valid, internally consistent (with alphas ranging from .71 to .92), and showed evidence of equivalence across racial and ethnic groups. A revised version of the MEIM was recently developed (Phinney & Ong, 2007). This new version more accurately measures ethnic identity, which is defined as an individual's committed sense of belonging to their ethnic group (2007). The previous version not only included items measuring ethnic identity but also assessed for an individual's level of participation in ethnic activities and orientation to other ethnic groups. However, as Phinney and Ong described, individuals may have a strong sense of belonging to their ethnic group but choose not to participate in the group's activities (2007). Thus, in this version, some of the previous items were dropped, other items were reworded, two factors (exploration and commitment) were identified with subscales measuring each one, and based on factor analysis a 6-item scale was finalized with good reliability of .76 for the exploration subscale, .78 for the commitment

subscale, and .81 for the combined 6-item scale. The exploration subscale (items 1, 4, and 5) deals with an individual's efforts to learn more about their ethnic group while the commitment subscale (items 2, 3, and 6) deals with an individual's positive affirmation and sense of commitment to their ethnic group (Phinney & Ong, 2007). The measure began with an open-ended question about the participant's ethnic self-label and concluded with a list of race and ethnic groups for the participants to identify their own and their parents' ethnic backgrounds (Appendix G). Participants responded to questions on a five point likert scale ranging from strongly disagree (1) to strongly agree (5), with higher scores indicating a stronger committed sense of belonging to their ethnic group. The mean of the scores for the full measure and the individual subscales were used in the final analyses. This measure was used with permission from the author. In the current sample, internal consistency (Cronbach's alpha) was very strong for the exploration ($\alpha = .91$), commitment ($\alpha = .91$), and the combined ($\alpha = .93$) scales.

Barriers to Utilization. This measure inquired about possible barriers that parents may experience when seeking or deciding to seek mental health care for their children. The measure was adapted from the National Institute of Mental Health (NIMH) Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) study, where it was used in an interview format to assess potential access barriers to mental health services (Flisher et al., 1997). Although specific data on reliability is not available, the MECA study was an extensive study of youth mental health disorders with over 1285 parent/youth dyads at four sites in the USA and Puerto Rico. The measure was modified to reflect a self-report format and was used in this study with permission from the authors. Participants responded to questions on a likert scale ranging from strongly

disagree (1) to strongly agree (4), where higher scores indicated stronger perception of barriers to service utilization (Appendix H). Items 1, 3, 5, 8, 11, 15, and 18 are reverse scored items. The barriers were separated into three groups: financial barriers (items 1 and 4), attitudinal barriers (items 2, 3, 5, 6, 7, 9, 10, 11, 12, and 13), and structural barriers (items 8, 14, 15, 17, and 18). One additional question (item 16) assessed if services have been used in the past and did not help. In the current sample, internal consistency (Cronbach's alpha) for the overall barriers measures was acceptable ($\alpha = .73$). Internal consistencies for the subscales were varied; significantly low for the proposed financial ($\alpha = .22$) and structural ($\alpha = .38$) subscales while the attitudinal subscale ($\alpha = .68$) was acceptable. However, given that subscale analyses were proposed, mean scores for the full measure and subscales were used in the analyses but interpreted with caution.

Beliefs About Causes – Revised (BAC-R; Yeh & Hough, 2005). This questionnaire examined parents' explanations for causes of mental health problems via a semi-structured interview format. The measure was created based on previous research, literature reviews, and consultation with cultural experts (Yeh et al., 2005). A revised version of the original measure was recently developed and was modified for use in the current study with permission from the author. The BAC-R is comprised of 11 scales which fall into three broad categories, as were determined by confirmatory factor analysis. They include: Biopsychosocial (5 scales: Physical Causes, Personality, Relational Issues, Familial Issues, and Trauma), Sociological (4 scales: Friends, American Culture, Prejudice, and Economic Problems), and Spiritual/nature disharmony (2 scales: Spiritual Causes, and Nature Disharmony). Each of the 11 scales is comprised

of several individual items which are used to assess parents' beliefs in the scale categories (Appendix I). On the BAC-R, endorsement of an individual item on one of the 11 scales indicates endorsement of that entire scale and as such belief in that specific cause of mental health problems. For example, if a parent endorsed item E4. "Something related to parenting skills", this indicates that they endorsed the "familial issues" scale. Immediately following the 11 scales (A-K) was an open-ended item which asked participants to identify the most important belief from all those endorsed. In addition to converting the measure to a self-report format, an additional item was added to the BAC-R measure. Participants were now asked to rate how strongly they believe in each of the 11 categories on a likert scale from not at all (1) to a great deal (5).

Since the BAC-R was a fairly new unpublished measure, reliability data were not yet available on this version. However, the original measure (which varies only slightly from the updated measure) showed excellent reproducibility on seven scales (kappas > 85%), good reproducibility on two scales, and two scales (personality and friends) had marginal reproducibility (Yeh et al., 2005). Construct validity was also supported (2005). As discussed above, endorsement of an item indicated endorsement of that scale. Scale endorsement was used in the final analyses. In addition, the strength of parents' beliefs were used to compare beliefs across ethnicities and gender. In the current sample, internal consistency (Cronbach's alpha) was very strong for the overall scale ($\alpha = .91$).

Data Analyses

Most of the analyses in this study were conducted using a series of logistic regression analyses. Logistic regression analysis has several advantages over linear regression analysis. Specifically, logistic regressions do not make assumptions about the

distribution of the outcome variables, as is the case in linear regressions (Pedhazur, 1997). Furthermore, the assumption of homoscedasticity is invalid and errors are not normally distributed (1997). Logistic regressions are therefore especially desirable for use when the dependent variable is dichotomous (such as with the problem recognition variable), as undesirable results will be found if linear regressions are used. Logistic regression analysis allows for the prediction or explanation of a discrete outcome from dichotomous, discrete, continuous, and mixed independent variables. Given that this research paper is focused on hypothesis testing, the forced entry method was used for all regression analyses (Field, 2009). Other analyses used in this study were Chi-square tests, Fisher's Exact tests, repeated measures logistic regression, Mann-Whitney tests, paired samples t-tests, correlations, and multiple regression analysis. Bonferroni corrected p-values were used for each research question based on the number of analyses being run per question.

SES was calculated based on the four-factor index of socioeconomic status (Hollingshead, 1975), which uses gender, marital status, education, and occupation to calculate the SES of study participants. In order to assess race differences, SES was controlled statistically so as not to confound race and SES. This procedure was achieved by covarying out the influence of SES on the participants' scores. Note, however, that this procedure is sometimes seen as a methodological limitation, as it arbitrarily creates a population that does not exist since individuals' race and SES are confounded in reality. Thus, although the data are reported with SES controlled, they were also analyzed without SES controlled to ensure that the data were examined thoroughly.

Results

Descriptives

As previously discussed, a total of 251 African American and Caucasian mothers and fathers participated in this study. Of these parents, 41% had used mental health services for themselves in the past. These parents who had used mental health services ranged in age from 20-64 years ($M = 40.39$, $SD = 8.25$), 52.4% were female and 47.6% were male, and 65% were Caucasian and 35% were African American. Based on a scale of 1-5, the average satisfaction rating of mental health services received was 3.19 ($SD = 1.23$) indicating that on average, most parents were at least moderately satisfied with the services they had received. With respect to future utilization, of the 28 parents (11.2% of the total sample) who self-disclosed having a current mental health problem, 50% were quite or extremely likely to seek treatment from a mental health professional.

When parents described their children's mental health utilization, they indicated that a total of 30.3% of their children had used mental health services in the past. Based on a scale of 1-5, the average satisfaction rating of mental health services their children had received was 3.05 ($SD = 1.26$), consistent with parents' satisfaction with their own services. Additionally, 59.2% of the parents of children who had utilized mental health services had also used services themselves in the past. Most of the children had utilized mental health services from the mental health sector (82.9%). However, some of them had also received mental health treatment from the education sector (51.3%), health

sector (35.5%), religious sector (21.1%), Juvenile Justice (10.5%), and Child Welfare (9.2%). These percentages were not mutually exclusive as the majority of these children had utilized services from more than one sector; in fact only 38.2% had received mental health treatment from only 1 sector. With respect to future mental health utilization for their children, 45 parents in the current sample (17.9% of the total participants) reported that at least one of their children had a current mental health problem. Of these parents, 68.9% were quite or extremely likely to seek treatment for this child from a mental health professional.

Parents indicated their previous personal and/or professional experience with some pre-identified mental health problems including Attention Deficit/Hyperactivity Disorder (ADHD), Anxiety, Depression, Oppositional Defiant Disorder (ODD), and Alcohol/Drug Abuse. Within the entire sample, 47% of parents had professional or personal experience with ADHD, 47% with depression, 38% with anxiety, 37% with Alcohol/drug abuse, and 22% with ODD. These percentages varied by parental race and gender (see Figure 4).

Parents scores on the Multigroup Ethnic Identity Measure -Revised (MEIM-R) have a potential range from 6-30, with higher scores indicating a stronger committed sense of belonging to one's own ethnic group. This sample had mean scores ranging from 1-5 ($M = 3.64$, $SD = 1.00$), indicating a positively skewed distribution of scores. A paired samples T-test indicated significant differences between the MEIM-R subscale scores $t(250) = 7.38$, $p < .001$. Specifically, parents' endorsed a stronger sense of Ethnic Identity Commitment ($M = 3.81$, $SD = 1.00$) than Ethnic Identity Exploration ($M = 3.46$, $SD = 1.14$). Further examination of MEIM-R scores using a one-way ANOVA indicated

that Black parents ($M = 4.20$, $SD = .76$) endorsed a stronger sense of belonging to their ethnic group than White parents to their own ethnic group ($M = 3.10$, $SD = .90$), $F(1, 249) = 107.84$, $p < .001$.

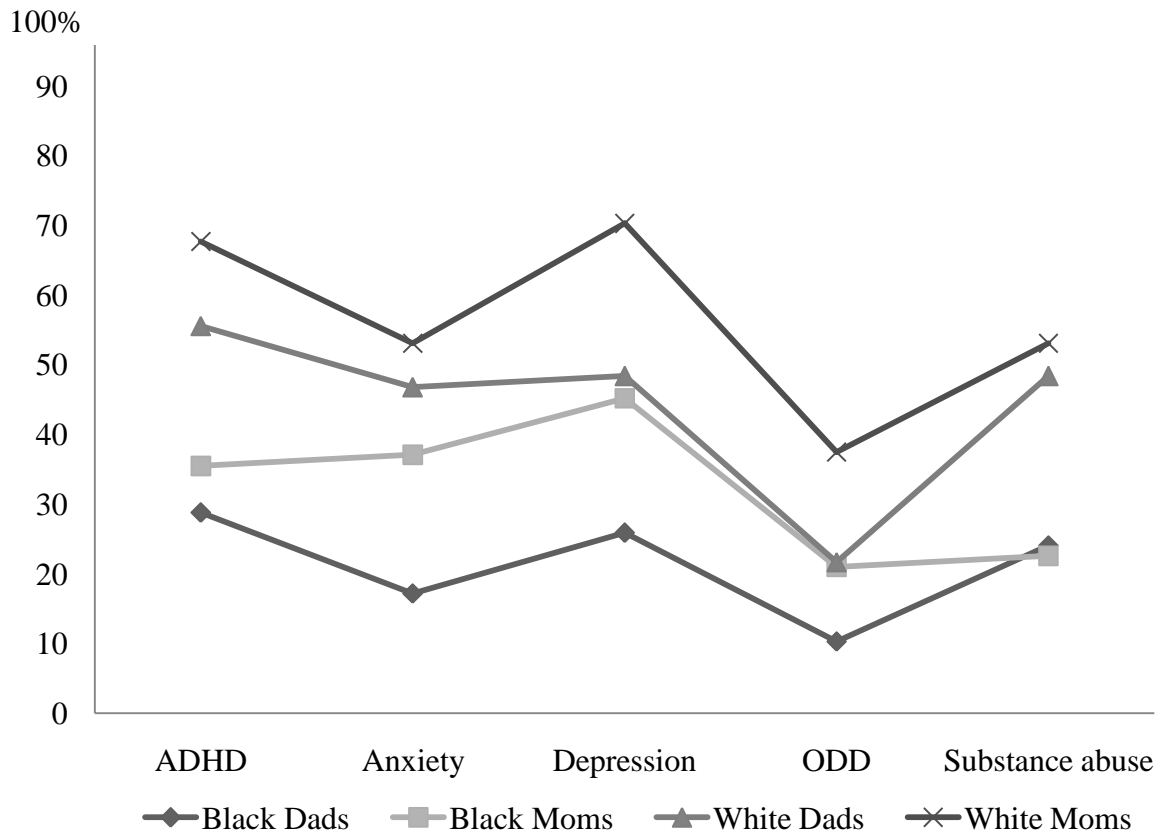


Figure 4. Parental Experience with Various Disorders by Race and Gender

The scores for the Barriers to Utilization measure ranged from 0 to 3, with higher scores indicating more perceived barriers to treatment utilization for participants' children. The current sample had scores ranging from 0.11 to 1.83 ($M = .94$, $SD = .36$). The ANCOVA used to examine the relationship between race, gender, and barriers (covarying for SES) was significant $F(4, 237) = 1.47$, $p < .05$. There was a main effect of gender with fathers ($M = 1.01$) reporting significantly more barriers to service utilization for their children than mothers ($M = .87$). Neither race nor the interaction effect was

significant. The most frequently endorsed barriers were, “Services would be too expensive,” “My child would want to solve the problem on his/her own,” and “There would be a language problem” (36.3%, 31.1%, and 30.3%, respectively). Further examination of barriers based on parental race and gender indicated similarities and differences in the most frequently endorsed barrier. Specifically, both mothers (33.6%) and fathers (39.0%) most frequently endorsed that “Services would be too expensive.” However, while White parents (38.3%) most frequently endorsed that “Services would be too expensive,” Black parents (39.8%) most frequently endorsed that “There would be a language problem.” Overall, 45.4% of parents endorsed financial barriers, 60.6% endorsed structural barriers, and 77.7% endorsed attitudinal barriers.

Parents reported their beliefs about causes of mental health problems from a list of 11 different areas. Overall, the most frequently endorsed causes of mental health problems in children were physical causes, family or parenting issues, and trauma with 98.4%, 97.6%, and 96.4% of parents endorsing items from each of these areas, respectively. It is notable that all three of these subscales fall under the broad category of biopsychosocial causes of child mental health problems. In fact, 99.2% of parents endorsed a biopsychosocial cause, 93.6% endorsed a sociological cause, and 51.8% endorsed a spiritual/nature disharmony cause of mental health problems in children. After parents endorsed their beliefs about the causes of mental health problems in children overall, they were then asked to indicate what they felt was the most important cause of mental health problems in children; this yielded smaller percentages and some variability by race and gender (see Figure 5). Three areas were not identified by any

parent as the most important cause of mental health problems in children including: American culture, Discrimination or Prejudice, and Disharmony with Nature.

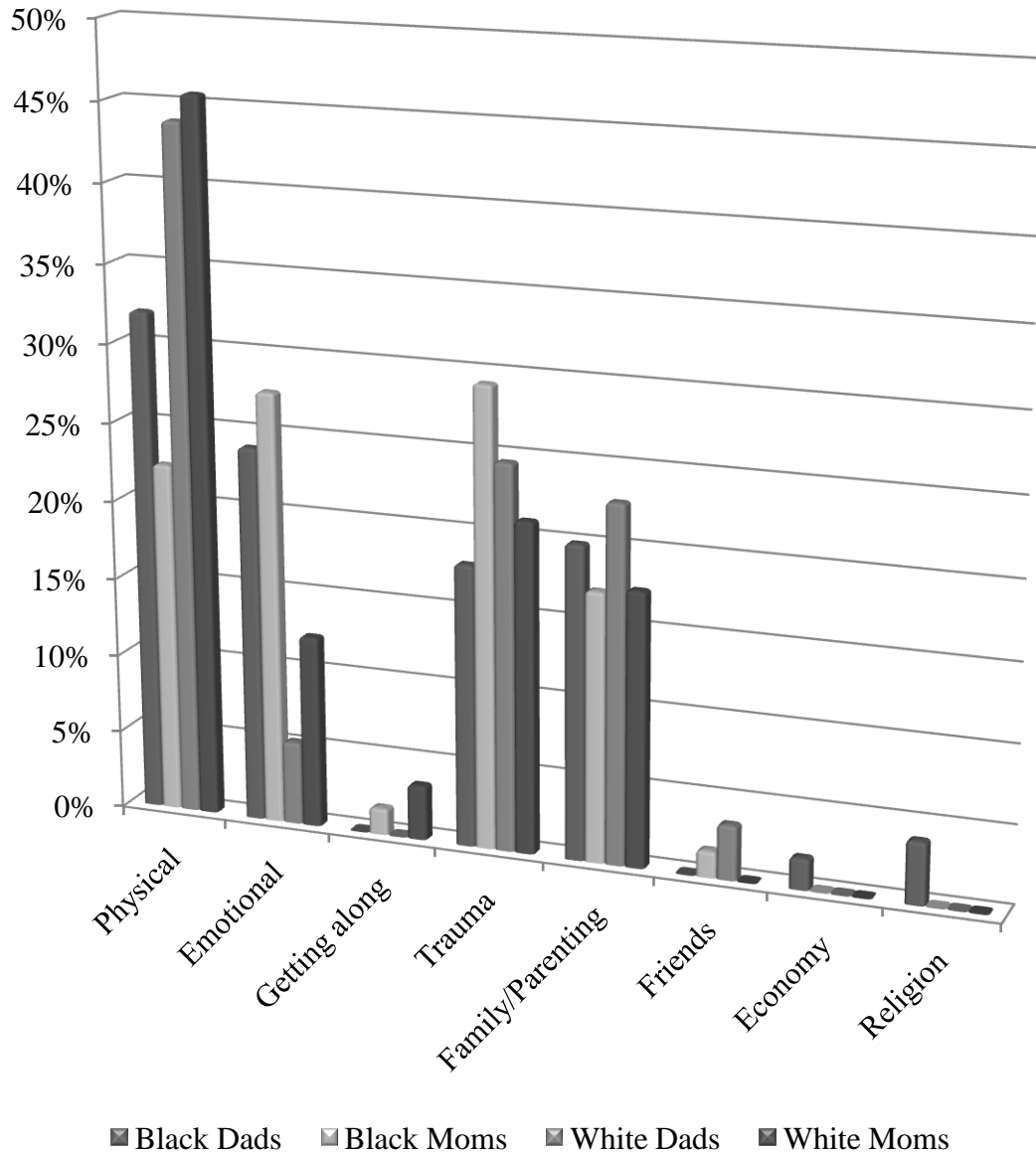


Figure 5. Parental Beliefs of the Most Importance Cause of Children’s Mental Health Problems

Parents’ responses to the vignettes were examined in greater detail in the hypothesis testing section; however, examination of parents responses about their first source of help-seeking for the internalizing and externalizing problem vignettes indicated

that most parents would seek help from the child's pediatrician first for both internalizing (see Figure 6) and externalizing problems (see Figure 7).

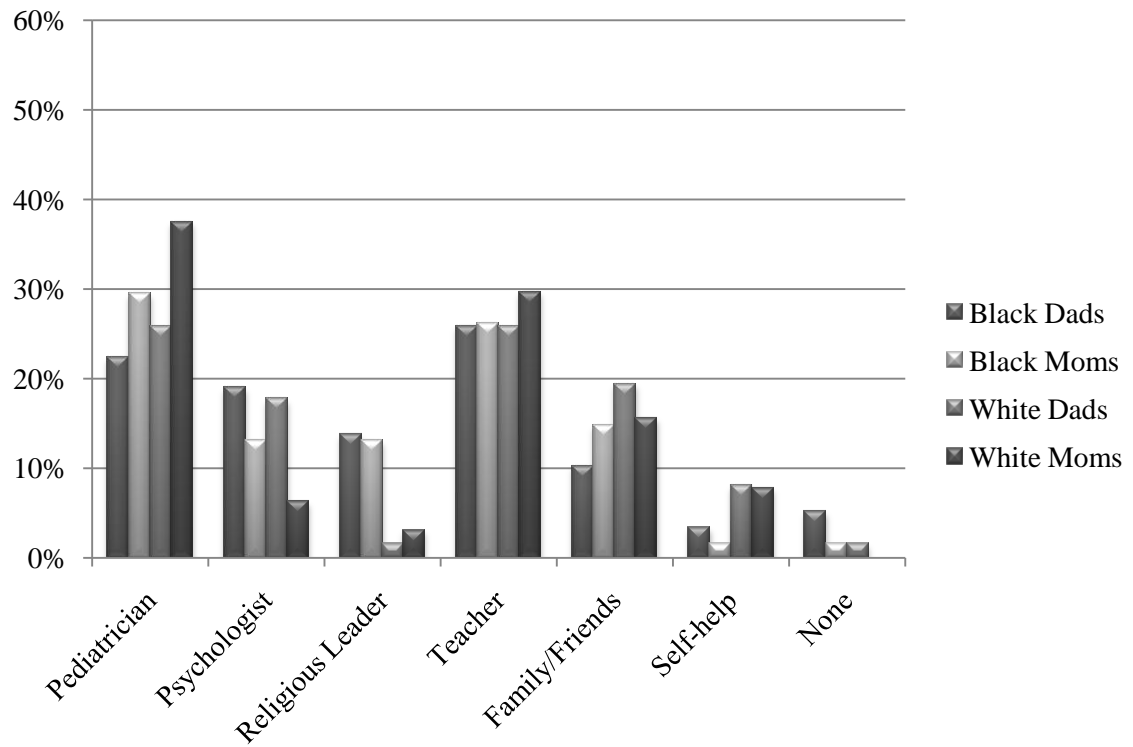


Figure 6. First Source of Help-Seeking for Internalizing Vignettes by Race and Gender

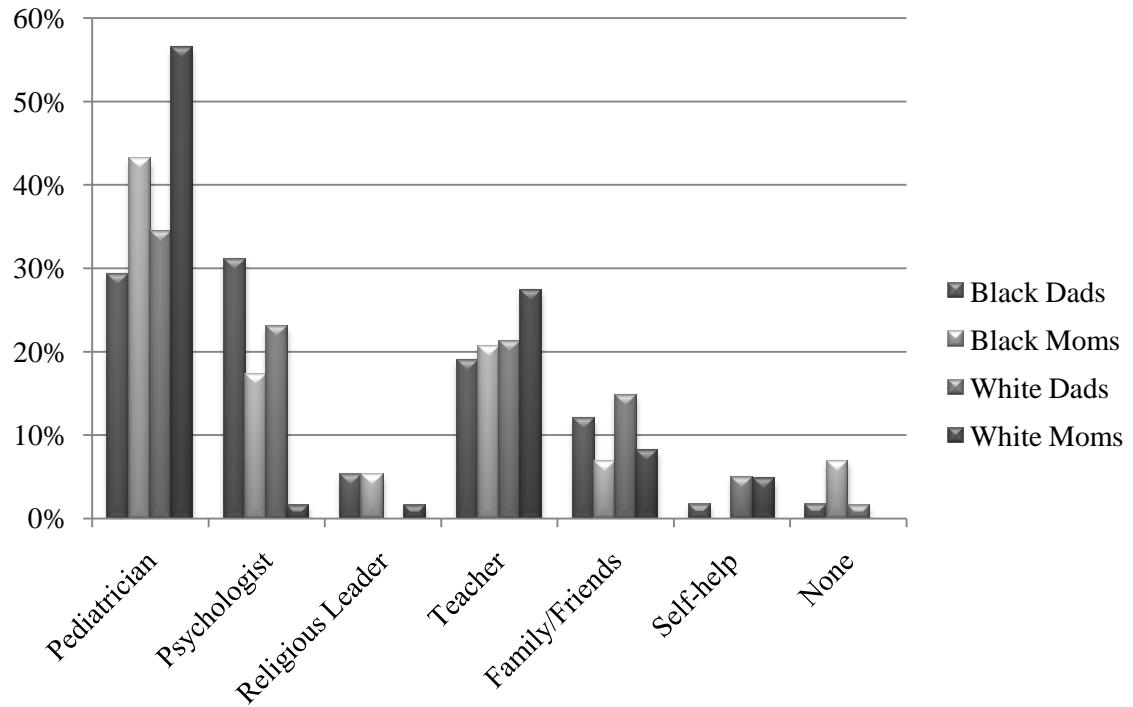


Figure 7. First Source of Help-Seeking for Externalizing Vignettes by Race and Gender

Group Differences

Analyses of Variance (ANOVAs) were conducted to determine if the groups (Black fathers, Black mothers, White fathers, and White mothers) were significantly different from each other on any of the major demographic variables including: age, number of children, household size, education, socioeconomic status, and income.

Assumptions of normality, equality of variance, and independence were met for most of the analyses. For a few cases, equality of variance was not met, however ANOVA is fairly robust to this violation. In cases where outliers resulted in a skewed distribution, the analyses were run with and without outliers. When significant differences occurred, the results are described separately. A Bonferroni corrected p value of .01 was used given that four ANOVAs were run.

Examination of parental age indicated a significant main effect for race, $F(1, 238) = 7.28, p < .01$, where Black parents were significantly younger ($M = 38.60$) than White parents ($M = 41.39$). There was no main effect for gender and the interaction effect was not significant. There was no difference between groups on the number of children parents had. However, given that the data was positively skewed and not normally distributed, final analyses involving group differences were run with and without outliers removed. There was also no significant difference between groups on household size.

An ANOVA examining parental education indicated a significant main effect for gender, $F(1, 244) = 9.61, p < .01$, with fathers reporting higher levels of education ($M = 16.35$) than mothers ($M = 15.48$). Neither race nor the interaction effect was significant. Given that the average number of years of education was 15.9 ($SD = 2.27$), this sample is notable for having a highly educated group of both Black and White parents, as there were no significant differences in race. For socioeconomic status (SES), there was a significant main effect for gender, $F(1, 243) = 13.57, p < .01$. Specifically, fathers reported higher SES ($M = 50.12$) than mothers ($M = 45.47$). There was no main effect for race and the interaction effect was not significant. When the data were re-examined with outliers controlled, results remained consistent. With respect to income, there was a significant main effect for gender, $F(1, 240) = 11.62, p < .01$, with fathers ($M = 13.92$) reporting higher income than mothers ($M = 12.47$). Neither the main effect for race nor the interaction effect were significant. As the income variable was negatively skewed and not normally distributed, outliers were controlled but results remained consistent. Given

the known confound between SES and race, it is notable that this sample did not differ significantly on SES across racial groups.

As initially proposed SES was to be statistically controlled, thus the gender difference in the SES variable will be captured by this statistical control of SES. Education differences will already be captured by controlling SES as well, as education is one of the four variables that make up the SES variable. Differences in income will also be captured by controlling SES, given the high correlation between these two variables ($r = .57, p < .001$ in this sample). Relevant analyses were re-examined with parental age statistically controlled and no differences were found.

Hypothesis Testing

The first and most important analysis was the investigation of the relationship between parental problem recognition and problem type (hypothesis 1). Given that the same set of parents rated all 3 vignettes, hypothesis 1 was examined using non-parametric tests for related samples (Cochran's Q test). This procedure was used to account for the nature of the categorical variables which were repeatedly measured and therefore dependent. This test was used to examine the relationship between problem recognition and problem type including internalizing (item 5 on anxiety vignette), externalizing (item 5 on ADHD vignette), and control problem (item 5 on the no-diagnosis vignette). Additionally, odds ratio hand calculations were conducted to determine the likelihood of parents recognizing internalizing and externalizing problems in comparison to control vignettes. In the overall sample, the percentage of parents who correctly identified the vignettes (i.e. correctly recognized internalizing and externalizing vignettes as problematic, and the control vignette as not problematic) were 51.8% for the internalizing

vignette, 60.6% for the externalizing vignette, and 88.8% for the control vignette. As hypothesized, pairwise comparisons using a corrected Bonferroni of $p = .017$ indicated that parents were more likely to identify the internalizing vignette as problematic than the control vignette, $Q(1) = 89.63, p < .001$ and the externalizing vignette as problematic than the control vignette, $Q(1) = 116.74, p < .001$. No statistically significant difference was found between parents recognition of externalizing versus internalizing problems. Further odds ratio calculations revealed that, compared to the control vignette, parents were 9.7 times more likely to recognize an internalizing problem and 14.5 times more likely to recognize an externalizing problem as problematic. However, it is important to emphasize that although parents were often able to distinguish between internalizing and externalizing vignettes from the control vignette, 48.2% and 39.4% of parents did not recognize that there was an internalizing or externalizing problem at all. Additionally, parents were 1.5 times more likely to recognize an externalizing than an internalizing problem as problematic; however, this difference while not statistically significant after Bonferroni correction revealed a trend ($p = .023$).

Hypothesis 2 stated that parents who recognize a mental health problem would be willing to seek help, irrespective of the type of problem. Two Chi-square tests were used to examine this relationship between problem recognition (item 5 on the anxiety and ADHD vignettes) and willingness to seek help (item 6 on the anxiety and ADHD vignettes) respectively. Additionally, a repeated measures logistic regression was used to examine the overall relationship between problem recognition (item 5 on the anxiety and ADHD vignettes) and willingness to seek help (item 6 on the anxiety and ADHD vignettes). The first chi-square test revealed a significant relationship between parental

recognition of an internalizing problem and their decision to seek help, $\chi^2 (1) = 65.66, p < .001$. Specifically, odds ratio calculations indicated that the odds of parents seeking help for an internalizing problem were 35.28 times higher when they recognized a problem than when they did not recognize a problem (Cramer's $V = .51$). A significant relationship was also found between parental recognition of an externalizing problem and their decision to seek help, $\chi^2 (1) = 50.31, p < .001$. Similarly, the odds ratio indicated that parents were 69.12 times more likely to seek help for an externalizing problem when they recognized a problem than when they did not (Cramer's $V = .46$). As expected, the repeated measures logistic regression was significant, $\chi^2 (1) = 53.97, p < .001$ and revealed that overall parents were more likely to report that they would seek help when they recognized a problem regardless of the problem type, $B (1) = 3.81 (0.52), p < .001$. Thus hypothesis 2 was fully supported.

Hypothesis 3 was analyzed with a series of chi-square tests and stated that parents would be more likely to recognize problems and more willing to seek help for boys than for girls. One set of chi-squares examined the relationship between child vignette gender and problem recognition for a) an internalizing problem (item 5), and b) an externalizing problem (item 5). The second set of chi-squares examined the relationship between child vignette gender and willingness to seek help for a) an internalizing problem (item 6), and b) an externalizing problem (item 6). The first set of chi-square analyses used to examine Hypothesis 3 was non-significant. These analyses examined the relationships between child vignette gender and recognition of internalizing, $\chi^2 (1) = 2.13, p = .14$ and externalizing, $\chi^2 (1) = .25, p = .62$ problems. The second set of chi-squares examining the relationship between child vignette gender and willingness to seek help for an

externalizing problem, $\chi^2 (1) = .31, p = .58$ was non-significant. The chi-square examining the relationship between child vignette gender and willingness to seek help for an internalizing problem was significant (using a corrected alpha of .025), $\chi^2 (1) = 6.72, p = .01$. Specifically, based on odds ratio calculations, parents were 2.2 times more likely to seek help for a boy with internalizing symptoms than a girl with the same symptoms (Cramer's V = .16). Thus, there was partial support for hypothesis 3.

Hypothesis 4 was examined with two sets of logistic regressions and stated that parents who endorse higher levels of perceived severity, problem threshold, functional impairment, and family impact would be more likely to recognize problems and more willing to seek help. The first set of logistic regressions were used to determine what aspects of perceived need [severity (item 1), problem threshold (item 2), functional impairment (item 3), and family impact (item 4)] were most predictive of parental recognition of a) an internalizing problem, and b) an externalizing problem. While the second set of logistic regressions examined what aspects of perceived need [severity (item 1), problem threshold (item 2), functional impairment (item 3), and family impact (item 4)] were most predictive of parental willingness to seek help for a) an internalizing problem, and b) an externalizing problem. The series of logistic regressions (using a corrected alpha of .025 per question) began with predicting the relationship between perceived need (severity, problem threshold, functional impairment, and family impact) and recognition of an internalizing problem. The overall logistic regression was significant with severity being the only significant predictor of internalizing problem recognition (see Table 2). Specifically, for every unit increase in severity ratings, parents were 2.8 times more likely to recognize an internalizing problem.

Table 2
Logistic Regression for Perceived Need Variables and Internalizing Problem Recognition

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	-5.10 *** (.82)			
Severity	1.03** (.32)	1.50	2.81	5.26
Problem Threshold	0.02 (.35)	0.52	1.02	2.02
Functional Impairment	0.34 (.29)	0.80	1.41	2.48
Family Impact	0.09 (.23)	0.69	1.09	1.72

Note: $R^2 = .19$ (Hosmer & Lemeshow), $.23$ (Cox & Snell), $.31$ (Nagelkerke). Model $\chi^2 (4) = 66.74, p < .001$. *** $p < .001$, ** $p < .01$

Another logistic regression was used to predict the relationship between the perceived need variables and externalizing problem recognition. Although the overall model was significant, $\chi^2 (4) = 55.92, p < .001$, none of the predictor variables were significant.

Logistic regressions were also used to examine the second part of hypothesis 4 (i.e. the relationship between the perceived need variables and willingness to seek help for internalizing and externalizing problems). The overall model for the perceived need variables and willingness to seek help for an internalizing problem was significant, $\chi^2 (4) = 49.20, p < .001$; however none of the predictor variables were significant. Finally, the overall logistic regression model for the perceived need variables and willingness to seek help for an externalizing problem was significant, $\chi^2 (4) = 54.64, p < .001$; however again none of the predictor variables were significant, although there was a trend for severity, $B (1) = 1.06 (0.50), p = .03$.

Post-hoc analyses for Hypothesis 4. Given consistently null findings despite significant overall models, hypothesis 4 was re-examined with post-hoc analyses in order to understand the data more clearly. The relationship among perceived need variables (severity, problem threshold, functional impairment, and family impact) for internalizing and externalizing vignettes were explored with correlational analyses. For the internalizing vignette, a very strong correlation was found between severity and problem threshold ($r = .80, p < .001$). For the externalizing vignette, very strong correlations were found between severity and problem threshold ($r = .83, p < .001$) and functional impairment and family impact ($r = .82, p < .001$). Thus, the data were re-examined with only one of these variables given that they appeared to be measuring similar underlying factors. Severity was selected over problem threshold and functional impairment over family impact based on the consistent relationship between these selected factors and help-seeking as previously established in the literature (Zwaanswijk et al., 2003). Examination of the internalizing vignette, with problem threshold dropped from the model, revealed no differences with problem recognition or willingness to seek help. Examination of the externalizing vignette, however, revealed significant changes for both problem recognition and willingness to seek help using a corrected alpha of 0.025. Specifically, the overall logistic regression model was significant with severity and functional impairment as significant predictors of externalizing problem recognition (see Table 3). Results indicated that for every unit increase in perceived severity ratings, parents were 2.3 times more likely to recognize an externalizing problem. Similarly, for every unit increase in perceived functional impairment, parents were 1.7 times more likely to recognize an externalizing problem.

Table 3
Logistic Regression for Selected Perceived Need Variables and Externalizing Problem Recognition

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	-4.37 *** (.81)			
Severity	0.82*** (.23)	1.44	2.27	3.59
Functional Impairment	0.54* (.24)	1.08	1.72	2.74

Note: $R^2 = .16$ (Hosmer & Lemeshow), $.19$ (Cox & Snell), $.26$ (Nagelkerke). Model $\chi^2 (2) = 53.19, p < .001$. *** $p < .001$, * $p < .05$

With respect to willingness to seek help for an externalizing problem, the overall logistic regression model was significant with severity and functional impairment as significant predictors (see Table 4).

Table 4
Logistic Regression for Selected Perceived Need Variables and Willingness to Seek Help for an Externalizing Problem

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	-4.55 *** (1.06)			
Severity	1.11** (.38)	1.44	2.27	3.59
Functional Impairment	0.89* (.34)	1.08	1.72	2.74

Note: $R^2 = .28$ (Hosmer & Lemeshow), $.19$ (Cox & Snell), $.37$ (Nagelkerke). Model $\chi^2 (2) = 52.91, p < .001$. *** $p < .001$, ** $p < .01$, * $p < .05$

Results revealed that for every unit increase in perceived severity ratings, parents were 3.0 times more likely to report willingness to seek help for an externalizing problem.

Similarly, for every unit increase in perceived functional impairment, parents were 2.4 times more likely to report willingness to seek help for an externalizing problem.

Overall, there was partial support for Hypothesis 4.

The fifth hypothesis was explored with logistic regressions and stated that parents who report smaller family size, higher levels of education, and current psychopathology would be more likely to recognize problems and more willing to seek help. The first set of logistic regressions were used to determine the aspects of family characteristics [family size (demographics-item 4), parent education (demographics-item 10-self), and parent self-reported psychopathology (utilization-item 4)] that were most predictive of recognition of a) an internalizing problem, and b) an externalizing problem. The second set of logistic regressions helped to determine aspects of family characteristics (same as those listed above) that were most predictive of willingness to seek help for a) an internalizing problem, and b) an externalizing problem. A corrected alpha of .025 was used for each logistic regression. With respect to the relationship between the family characteristic variables and parental problem recognition, neither the internalizing problem, $\chi^2 (3) = 7.37, p = .06$ nor the externalizing problem, $\chi^2 (3) = 0.70, p = .89$ logistic models were significant. Similarly, examination of the relationship between the family characteristic variables and willingness to seek help were non-significant for internalizing, $\chi^2 (3) = 2.87, p = .41$ and externalizing, $\chi^2 (3) = 1.78, p = .62$ problems. Thus, hypothesis 5 was not supported.

Two sets of logistic regressions were used to examine the sixth hypothesis, which stated that African Americans, fathers, and parents of lower SES would be less likely to recognize problems and less willing to seek help. It was also hypothesized that African American parents with higher ratings of ethnic identity and Caucasian parents with lower ratings of ethnic identity will be less likely to recognize problems and less willing to seek help. The first set of logistic regressions were used to predict the relationship between

demographic characteristics (parent race, ethnic identity (mean score), parent gender, and SES) and problem recognition of a) an internalizing problem, and b) an externalizing problem. The second set of logistic regressions were used to predict the relationship between demographic characteristics (parent race, ethnic identity (mean score), parent gender, and SES) and willingness to seek help for a) an internalizing problem, and b) an externalizing problem. Logistic regressions were explored using a corrected alpha of .025. With respect to the relationship between parental demographic variables and internalizing problem recognition, the overall model was significant with race and gender as significant predictors (see Table 5).

Table 5
Logistic Regression for Parent Demographic Variables and Internalizing Problem Recognition

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	-2.77** (1.00)			
SESscore	0.01 (.01)	0.99	1.01	1.04
Ethnic Identity	0.28 (.16)	0.97	1.33	1.82
Race (1)	1.60*** (.44)	2.10	4.94	11.65
Gender (1)	1.22** (.39)	1.56	3.37	7.29
Race (1) by Gender (1)	-1.15 (.53)	0.11	0.32	0.90

Note: $R^2 = .06$ (Hosmer & Lemeshow), $.08$ (Cox & Snell), $.10$ (Nagelkerke). Model $\chi^2 (5) = 20.11, p < .01$. *** $p < .001$, ** $p < .01$

Specifically, White parents were 4.9 times more likely than Black parents and mothers were 3.4 times more likely than fathers to recognize an internalizing problem. Of note, there was a trend ($p = .03$) for White mothers to recognize internalizing problems more often than other parents.

Examination of the relationship between parental demographic variables and externalizing problem recognition revealed a non-significant model, $\chi^2 (5) = 8.48, p = .13$. The second part of hypothesis 6 examined the relationship between parent demographic characteristics and willingness to seek help. For willingness to seek help for an internalizing problem, the overall model was significant with gender as the only significant predictor (see Table 6). Specifically, mothers were 4.5 times more willing to seek help for an internalizing problem than fathers. Of note, there was a trend for increased willingness to seek help for an internalizing problem for white parents ($p = .03$) and white mothers, specifically ($p = .03$).

Table 6
Logistic Regression for Parent Demographic Variables and Willingness to Seek Help for an Internalizing Problem

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	0.38 (1.17)			
SESscore	0.01 (.02)	0.98	1.01	1.05
Ethnic Identity	-0.17 (.21)	0.56	0.84	1.26
Race (1)	1.02 (.48)	1.08	2.79	7.16
Gender (1)	1.51** (.45)	1.87	4.54	11.07
Race (1) by Gender (1)	-1.38 (.65)	0.07	0.25	0.90

Note: $R^2 = .07$ (Hosmer & Lemeshow), $.07$ (Cox & Snell), $.10$ (Nagelkerke). Model $\chi^2 (5) = 18.33, p < .01$. ** $p < .01$

Examination of the relationship between parental demographic variables and willingness to seek help for an externalizing problem revealed a non-significant relationship, $\chi^2 (5) = 12.21, p = .03$. Thus, overall, there was only partial support for hypothesis 6.

Hypothesis 7 stated that parents who endorse biopsychosocial beliefs would be more likely to recognize problems in youth and more willing to seek formal help while parents who endorse sociological and spiritual/nature disharmony beliefs would be less likely to recognize problems and more willing to seek informal help. This hypothesis was examined with chi-square analyses (Fisher's Exact test -2 tailed was used when more than 20% of the expected frequencies were less than 5) and Mann-Whitney tests. Non-parametric tests were used given the violations of normality (Field, 2009). The chi-square/Fisher's exact tests were used to explain the relationship between each of the biopsychosocial beliefs (physical causes, personality, relational issues, familial issues, and trauma), sociological beliefs (friends, American culture, prejudice, and economic problems), and spiritual/nature disharmony beliefs (spiritual causes, and nature disharmony) and a) internalizing problem recognition (item 5), and b) externalizing problem recognition (item 5). The Mann-Whitney tests were used to explain the relationship between biopsychosocial, sociological, and spiritual/nature disharmony beliefs and a) willingness to seek formal help for internalizing and externalizing problems (means of items 8-1, 8-2, and 8-4 for internalizing and externalizing vignettes), and b) willingness to seek informal help for internalizing and externalizing problems (means of items 8-3, 8-5, and 8-6 for internalizing and externalizing vignettes).

Chi-square and Fisher's Exact tests revealed non-significant relationships between internalizing problem recognition and Biopsychosocial Beliefs including Physical Causes ($p = .36$; *Fisher's Exact Test, FET*), Personality ($\chi^2 (1) = 1.40, p = .24$), Relational Issues ($\chi^2 (1) = 0.35, p = .55$), Parenting/Familial issues ($p = .11$; *FET*), and Trauma ($p = 1.00$; *FET*). There were significant relationships between internalizing problem recognition

and some of the Sociological Beliefs (using corrected alpha of 0.013) including Friends ($\chi^2 (1) = 11.66, p < .01$) and Economic Problems ($\chi^2 (1) = 7.51, p < .01$). Specifically, the odds of parents recognizing an internalizing problem were 4.6 times higher when they believed mental health problems were at least partially caused by a child's Friends (Cramer's $V = .22$) and 2.2 times higher when they believed mental health problems were at least partially caused by Economic Problems (Cramer's $V = .17$). The relationship between internalizing problem recognition and the Sociological Beliefs of American Culture ($\chi^2 (1) = 5.21, p = .02$) and Prejudice ($\chi^2 (1) = 2.66, p = .10$) were non-significant; although as illustrated there was a trend for American Culture beliefs. Similarly, there were non-significant relationships between internalizing problem recognition and Spiritual/Nature Disharmony Beliefs including Spiritual Causes ($\chi^2 (1) = 0.08, p = .78$), and Nature Disharmony ($\chi^2 (1) = 1.02, p = .31$).

With respect to externalizing problem recognition and Biopsychosocial Beliefs, non-significant relationships were found with Physical Causes ($p = .64$; *FET*), Personality ($\chi^2 (1) = 0.02, p = .90$), Relational Issues ($\chi^2 (1) = 0.10, p = .75$), Parenting/Familial issues ($p = .10$; *FET*), and Trauma ($p = 1.00$; *FET*). Similarly, non-significant relationships were found between externalizing problem recognition and the Sociological Beliefs including Friends ($\chi^2 (1) = 0.09, p = .76$), American Culture ($\chi^2 (1) = 1.47, p = .23$), Prejudice ($\chi^2 (1) = 1.81, p = .18$), and Economic Problems ($\chi^2 (1) = 1.02, p = .31$). Additionally, there were non-significant relationships between externalizing problem recognition and Spiritual/Nature Disharmony Beliefs including Spiritual Causes ($\chi^2 (1) = 1.23, p = .27$), and Nature Disharmony ($\chi^2 (1) = 0.003, p = .96$).

The second portion of hypothesis 7 examined the relationship between the various beliefs and willingness to seek formal and informal help using Mann-Whitney tests and corrected alpha of 0.0125 for each belief category examined. Analyses revealed non-significant relationships between Biopsychosocial beliefs and willingness to seek formal help for internalizing ($U = 241, p = .94$) and externalizing ($U = 157.50, p = .39$) problems. Similarly, non-significant relationships were also found between Biopsychosocial beliefs and willingness to seek informal help for internalizing ($U = 161, p = .39$) and externalizing ($U = 174.50, p = .49$) problems. Examination of the relationship between Sociological Beliefs and willingness to seek informal help for internalizing ($U = 1739.50, p = .62$) and externalizing ($U = 1835, p = .99$) problems were non-significant. The relationships between Sociological beliefs and willingness to seek formal help for internalizing ($U = 1354, p = .06$) and externalizing ($U = 1247, p = .03$) problems were also non-significant, but a trend was revealed. As hypothesized, a significant relationship was revealed between Spiritual/Disharmony Beliefs and willingness to seek informal help for internalizing ($U = 6167, p < .01$) and externalizing ($U = 5265.50, p < .001$) problems. Further examination of the data revealed that parents who believed that mental health problems were at least partially caused by spiritual/religious reasons were more willing to seek informal help for internalizing ($U = 6491.50, p = .02, r = -.15$) and externalizing ($U = 5666.50, p < .01, r = -.22$) problems. Non-significant relationships were revealed between Spiritual/Disharmony Beliefs and willingness to seek formal help for internalizing ($U = 7556.50, p = .59$) and externalizing ($U = 7400.50, p = .78$) problems. Thus, overall, there was only partial support for hypothesis 7.

Two chi-square tests were used to examine the eighth hypothesis, which stated that parents who have had previous experience with anxiety and ADHD would be more likely to recognize the anxiety and ADHD vignettes as problematic. One chi-square was used to explain the relationship between previous professional or personal experience with anxiety (utilization-item 12) and recognition of an internalizing problem (item 5). The second chi-square was used to explain the relationship between previous professional or personal experience with ADHD (utilization-item 12) and recognition of an externalizing problem (item 5). Results revealed a significant relationship between previous experience with anxiety and recognition of an internalizing (anxiety) problem vignette, $\chi^2 (1) = 19.01, p < .001$. Specifically, parents were 3.3 times more likely to recognize an internalizing (anxiety) problem when they had previous experience with anxiety (Cramer's $V = .28$). There was a non-significant relationship, however, between previous experience with ADHD and recognition of an externalizing (ADHD) problem vignette, $\chi^2 (1) = 1.09, p = .30$. Further analysis using an independent samples t-test revealed a significant relationship between previous mental health experience in general and recognition of an internalizing (anxiety) problem, $t (247) = -4.05, p < .001$. Specifically, parents who accurately recognized an internalizing problem vignette had more prior mental health experience ($M = 0.49$) than those who did not ($M = 0.30$). However, previous mental health experience did not have a significant relationship with externalizing (ADHD) problem recognition, $t (243) = -0.15, p = .88$. Specifically, parents who accurately recognized an externalizing problem vignette did not differ in previous mental health experience ($M = 0.40$) from parents who did not recognize the externalizing problem vignette ($M = 0.40$). Thus, hypothesis 8 was partially supported.

The ninth hypothesis stated that fathers and African American parents would endorse more sociological and spiritual/nature disharmony beliefs and fewer biopsychosocial beliefs than mothers and Caucasian parents. Additionally, it was hypothesized that fathers and African American parents would have less experience with mental health disorders than mothers and Caucasian parents. This hypothesis was examined using logistic regressions and Analyses of covariance (ANCOVA). Logistic regressions were used to examine the relationships between each specific belief (relational issues, friends, American culture, prejudice, economic problems, spiritual causes, and nature disharmony) and parental race and gender. However, four of the beliefs (physical causes, personality, parenting/familial issues, and trauma) were not examined because they were endorsed by 93% - 98% of all parents resulting in more than 20% of their cells with expected counts below 5. Using a corrected alpha of .007 analyses proceeded with predicting the relationship between Relational beliefs, parent race, and gender, which was non-significant, $\chi^2 (2) = 5.58, p = .06$. However, the relationship between Friends beliefs, parent race, and gender was significant with gender as the only significant predictor (see Table 7).

Table 7
Logistic Regression for Child's Friends Belief and Parent Race and Gender

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	1.25*** (.29)			
Gender (1)	1.27** (.46)	1.45	3.56	8.77
Race (1)	0.74 (.42)	0.91	2.09	4.79

Note: $R^2 = .07$ (Hosmer & Lemeshow), $.05$ (Cox & Snell), $.09$ (Nagelkerke). Model $\chi^2 (2) = 11.73, p < .01$. *** $p < .001$, ** $p < .01$

Specifically, mothers were 3.6 times more likely than fathers to endorse that mental health problems are due at least in part to a child's Friends. Parents' belief in American Culture as a potential cause of mental health problems and their race and gender were examined next and revealed a non-significant relationship, $\chi^2 (2) = 0.17, p = .92$. The relationship between parent race, gender and Discrimination beliefs, $\chi^2 (2) = 3.02, p = .22$, and Economic beliefs, $\chi^2 (2) = 6.17, p = .05$ were also non-significant after Bonferroni correction. The relationship between parent race, gender, and Religious beliefs was significant with race as the only significant predictor (see Table 8). Specifically, Black parents were 2.3 times (1/.43, given negative beta weight) more likely than White parents to endorse that mental health problems are due at least in part to religious or spiritual reasons.

Table 8
Logistic Regression for Religious Beliefs and Parent Race and Gender

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Odds Ratio	Upper
Constant	0.25 (.23)			
Gender (1)	0.12 (.26)	0.68	1.13	1.87
Race (1)	-0.86** (.26)	0.26	0.43	0.71

Note: $R^2 = .03$ (Hosmer & Lemeshow), $.04$ (Cox & Snell), $.06$ (Nagelkerke). Model $\chi^2 (2) = 11.40, p < .01$. ** $p < .01$

Finally, the relationship between parent race, gender, and Nature Disharmony beliefs was non-significant after Bonferroni correction, $\chi^2 (2) = 7.83, p = .02$; although, a trend was revealed.

The second and third parts of hypothesis 9 were examined using two-way ANCOVAs. Due to the strong relationship between race and SES in previous research, the influence of SES was covaried to ensure that the results were not due to the influence of SES but rather to actual race differences. There were two between subject factors – gender (mother vs. father) and race (Black vs. White). These ANCOVAs were used to investigate the relationships between parental race and gender and a) biopsychosocial beliefs (mean score), b) sociological beliefs (mean score), c) spiritual/nature disharmony beliefs (mean score), and d) prior experience with mental health disorders (mean experience score).

The second part of hypothesis 9 was examined using three two-way ANCOVAs (corrected alpha of 0.017). The first ANCOVA was between Biopsychosocial beliefs, race (Black and White), and parent gender (mother and father), covarying for the influence of SES. While the overall statistic was significant $F(4, 241) = 3.11, p = .016$, partial $\eta^2 = .05$, none of the main effects (parent gender, $F(1, 241) = 4.60, p = .03$; race, $F(1, 241) = 4.29, p = .04$) or the interaction effect $F(1, 241) = 2.89, p = .09$ were significant. The second ANCOVA examining the relationship between Sociological beliefs, race, and parent gender, while covarying for the influence of SES was non-significant, $F(4, 241) = 1.00, p = .41$. The third ANCOVA explored the relationship between Spiritual/Disharmony beliefs, race, and parent gender, covarying for the influence of SES. Results indicated a significant main effect of race, $F(1, 240) = 13.90, p < .001$, partial $\eta^2 = .06$, indicating that Black parents ($M = 2.03$) endorsed stronger Spiritual/Disharmony beliefs than White parents ($M = 1.59$). However, neither the main

effect of parent gender, $F(1, 240) = 0.07, p = .80$, nor the interaction effect, $F(1, 240) = 0.07, p = .79$ were significant.

The third part of Hypothesis 9 used an ANCOVA to examine the relationship between prior experience with mental health disorders, race, and parent gender, while covarying for the influence of SES. There was a significant main effect of parent gender, $F(1, 240) = 7.10, p < .01$, partial $\eta^2 = .03$, indicating that mothers ($M = .46$) reported more prior mental health experience than fathers ($M = .33$). The main effect for race was also significant, $F(1, 240) = 25.39, p < .001$, partial $\eta^2 = .10$, indicating that White parents ($M = .51$) reported more prior experience with mental health disorders than Black parents ($M = .28$). However, the interaction effect was non-significant, $F(1, 240) = 0.01, p = .93$. Thus, overall, there was partial support for portions of hypothesis 9.

Hypothesis 10 stated that parents would endorse more attitudinal barriers than structural and financial barriers. Additionally, it was hypothesized that fathers would endorse more attitudinal barriers than mothers and African American parents would endorse more structural barriers than Caucasian parents. Paired samples t-tests and ANCOVAs were used to examine this hypothesis. The initial paired samples t-tests were used to determine differences among the types of barriers [attitudinal (mean subtest score), structural (mean subtest score), and financial (mean subtest score)]. The ANCOVAs (covarying SES) were used to investigate the relationship between race (black and white) and parent gender (mothers and fathers) and attitudinal, structural, and financial barriers. The first part of Hypothesis 10 using paired samples t-tests revealed medium-sized correlations between financial and attitudinal barriers ($r = .31, p < .001$), financial and structural barriers ($r = .39, p < .001$), and attitudinal and structural barriers

($r = .46, p < .001$). However, t-tests comparing each of the following pairs were non-significant; financial and attitudinal barriers, $t(245) = 0.85, p = .40$, financial and structural barriers, $t(245) = 1.79, p = .07$, and attitudinal and structural barriers, $t(245) = 1.19, p = .24$. The second part of Hypothesis 10 used ANCOVAs to explore the relationship between barriers, parent gender, and race, covarying for SES (corrected alpha 0.017). The first ANCOVA exploring the relationship between financial barriers, parent gender, and race, covarying for SES was non-significant, $F(4, 237) = 2.19, p = .07$. The second ANCOVA examined the relationship between attitudinal barriers, parent gender, and race, covarying for SES was also non-significant, $F(4, 237) = 1.97, p = .10$. The third ANCOVA used to analyze the relationship between structural barriers, parent gender, and race, while covarying for SES was not significant either, $F(4, 237) = 2.64, p = .04$. Thus, hypothesis 10 was not supported.

The eleventh hypothesis stated that parents who perceive more barriers would be less willing to seek formal help, irrespective of problem type. Correlations were used to explore the relationships between barriers (mean score), formal help-seeking (mean of items 8-1, 8-2, and 8-4) for internalizing and externalizing problems, informal help-seeking (mean of items 8-3, 8-5, and 8-6) for internalizing and externalizing problems, and ethnic identity (mean score; see Table 9). There was a weak inverse relationship between barriers and formal help-seeking for an externalizing problem (i.e. parents were less willing to seek formal help for an externalizing problem when they perceived more barriers). Additionally, help-seeking regardless of source (formal vs. informal) or problem type (internalizing vs. externalizing) had moderate to strong inter-relationships. Of note, there were very strong relationships between similar sources of help-seeking

regardless of problem type (see Table 9). Ethnic identity was not significantly correlated with any of the other variables. Thus, there was partial support for hypothesis 11.

Table 9
Intercorrelations between Barriers, Ethnic Identity, Formal and Informal Help-Seeking for Internalizing and Externalizing Problems

Variable	Mean	SD	Barriers	Formal HS Internalizing	Formal HS Externalizing	Informal HS Internalizing	Informal HS Externalizing	Ethnic Identity
Barriers	.94	.36	-	-.13	-.14*	.09	.11	.06
Formal HS Internalizing	3.14	1.03	-	-	.55***	.40***	.21**	-.05
Formal HS Externalizing	3.39	.99	-	-	-	.24***	.35***	-.05
Informal HS Internalizing	2.59	.94	-	-	-	-	.74***	-.04
Formal HS Externalizing	2.46	.99	-	-	-	-	-	-.02
Ethnic Identity	3.64	1.00	-	-	-	-	-	-

Note. HS = Help-seeking
* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 12 stated that endorsement of fewer barriers, stronger biopsychosocial beliefs, weaker sociological beliefs, and weaker spiritual/nature disharmony beliefs would predict higher intentions to utilize mental health services in the future. Multiple regression analysis was used to predict parents' intentions to utilize mental health services for their child in the future based on their perceived barriers (mean score), biopsychosocial beliefs (mean score), sociological beliefs (mean scale score), spiritual/nature disharmony beliefs (mean score), and ethnic identity (mean score). Only parents who endorsed that at least one of their children had a current mental health problem were used in this analysis. Of these 45 parents (17.9% of the total sample),

68.9% of them were quite or extremely likely to seek help for their child. However, the overall regression equation was non-significant, $F(5, 39) = 1.28, p = .29$. Thus, the hypothesized variables did not predict intentions to utilize mental health services; hypothesis 12 was not supported.

Post Hoc Analyses

Given that some of the proposed hypotheses were not supported and revealed unexpected null results, further analyses were conducted to explore the variables in a more thorough manner. These results are presented in this section because they were not proposed with the original hypotheses.

Parental confidence in ratings of vignettes. Parents were asked to rate their confidence in their ratings of each vignette as problematic or not. Overall parents were confident in their own ratings (measured on a scale from 1-5); internalizing ($M = 3.60, SD = .89$), externalizing ($M = 3.65, SD = .97$), and control ($M = 3.89, SD = .96$). Independent samples t-tests were used to explore differences in confidence ratings among parents who did or did not identify vignettes correctly. With respect to the internalizing vignette, a significant relationship was revealed, with parents who correctly recognized the internalizing vignette expressing more confidence in their rating ($M = 3.73$) than parents who did not recognize the internalizing vignette ($M = 3.46; t(248) = -2.45, p = .02$). Similarly with the externalizing vignette, parents who correctly recognized this vignette expressed more confidence in their rating ($M = 3.83$) than parents who did not recognize the externalizing vignette ($M = 3.35; t(243) = -3.88, p < .001$). There were no significant differences for the control vignette, $t(244) = 0.96, p = .34$.

ANOVAs were used to explore differences in confidence ratings by race and parent gender, covarying for the influence of SES and age. Results indicated non-significant relationships with internalizing, $F(5, 232) = 1.98, p = .08$ and control, $F(5, 228) = 1.21, p = .31$. However, for the externalizing vignette, there was a main effect for race, $F(1, 228) = 36.94, p < .001$, partial $\eta^2 = .14$. Specifically, Black parents ($M = 4.03$) were more confident in their rating of externalizing symptoms than were White parents ($M = 3.31$). Neither the main effect for parent gender, $F(1, 228) = 0.97, p = .33$ nor the interaction effect were significant, $F(1, 228) = 2.55, p = .11$.

Relations to children's mental health experience. Examination of parents who currently had a child with a mental health problem revealed that parents whose children had utilized mental health services in the past reported higher intentions ($M = 4.17, SD = 1.16$) to utilize services in the future than parents whose children had not used services ($M = 3.11, SD = 1.36$) in the past, $t(43) = -2.36, p < .05, r = .34$. Furthermore, there was a very strong correlation between satisfaction with past mental health treatment and intentions to utilize services in the future, $r = .42, p < .001$.

Chi-square tests were used to explore the relationship between parents' mental health experience with their own children and recognition of internalizing and externalizing problems as presented in vignettes. A significant relationship was found between having a child with a mental health problem and internalizing problem recognition, $\chi^2(1) = 12.20, p < .001$. Specifically, parents who reported having a child with a current mental health problem were 3.5 times more likely to recognize the internalizing vignette as a problem (Cramer's $V = .22$). However, this relationship was non-significant for the externalizing vignette, $\chi^2(1) = 1.86, p = .17$. Independent samples

t-tests were used to examine the relationship between parents' past utilization of mental health services for their children and willingness to seek formal help for internalizing and externalizing problems as presented in vignettes. Parents were more willing to seek formal help for the internalizing vignette if their own children had used mental health services in the past, $t(249) = -3.85, p < .001, r = .24$. Similarly, parents were also more willing to seek formal help for the externalizing vignette if their own children had used mental health services in the past, $t(244) = -2.85, p < .01, r = .18$.

Beliefs about causes of mental health problems. Given poor variability and significant skew in the BAC-R measure, logistic and multivariate regressions were used to re-examine the relationships between beliefs about causes of mental health problems and recognition and willingness to seek formal and informal help. First, correlations between endorsement of each belief category (mean of items A – K on the BAC-R) and strength rating of each belief category (item L: A-K) revealed moderate (.23 for physical causes) to very strong (.60 for discrimination) correlations. The overall logistic regression model predicting the relationship between beliefs and internalizing problem recognition was significant, $\chi^2(11) = 26.01, p < .01$. However, none of the predictors were significant. Additionally, the relationship between beliefs and externalizing problem recognition was non-significant, $\chi^2(11) = 10.05, p = .53$. The first multiple regression examining the relationship between beliefs and willingness to seek formal help for an internalizing problem was significant, $F(11, 227) = 4.16, p < .001, R^2 = .17$ with Personality, Trauma, and Economic problems as the only predictors accounting for a significant amount of variance in the model (see Table 10). These results suggest that as parents' beliefs in personality and economic problems increased, so did their willingness

to seek formal help for an internalizing problem. Also, as their beliefs in trauma decreased, they were more willing to seek formal help for an internalizing problem.

Table 10
Multiple Regression for Beliefs about Causes of Mental Health Problems and Willingness to Seek Formal Help for an Internalizing Problem

Variable	B	SE B	β
Constant	2.29	0.37	
Physical Causes	0.01	0.07	0.01
Personality/Emotional Struggles	0.31	0.08	0.29***
Getting Along with Others	0.11	0.09	0.13
Trauma	-0.24	0.08	-0.22**
Family/Parenting Issues	0.06	0.08	0.06
Friends	-0.13	0.10	-0.14
American Culture	0.08	0.08	0.09
Discrimination/Prejudice	-0.17	0.09	-0.21
Economic Problems	0.23	0.09	0.27**
Spiritual/Religious Reasons	-0.01	0.07	-0.01
Disharmony with Nature	0.04	0.08	0.04

Note. $R^2 = .17$. *** $p < .001$, ** $p < .01$

The second regression revealed a significant relationship between beliefs and willingness to seek formal help for an externalizing problem, $F(11, 222) = 2.27, p < .01$, $R^2 = .10$ with Economic problems as the only predictor accounting for a significant amount of variance in the model (see Table 11). These results suggest that the stronger parents believed that economic issues cause mental health problems, the more willing they were to seek formal help for an externalizing problem.

Table 11
Multiple Regression for Beliefs about Causes of Mental Health Problems and Willingness to Seek Formal Help for an Externalizing Problem

Variable	B	SE B	β
Constant	2.60	0.37	
Physical Causes	0.05	0.07	0.05
Personality/Emotional Struggles	0.10	0.08	0.10
Getting Along with Others	-0.04	0.09	-0.05
Trauma	-0.06	0.08	-0.06
Family/Parenting Issues	0.10	0.08	0.11
Friends	-0.10	0.10	-0.12
American Culture	0.12	0.08	0.14
Discrimination/Prejudice	-0.11	0.09	-0.13
Economic Problems	0.25	0.09	0.31**
Spiritual/Religious Reasons	-0.05	0.07	-0.05
Disharmony with Nature	-0.06	0.08	-0.06

Note. $R^2 = .10$. ** $p < .01$

The third regression revealed a non-significant relationship between beliefs and willingness to seek informal help for an internalizing problem, $F(11, 227) = 1.33, p = .21$. The fourth regression also revealed a non-significant relationship between beliefs and willingness to seek informal help for an externalizing problem, $F(11, 222) = 1.03, p = .42$.

A MANCOVA (Multivariate Analyses of Covariance) was used to explore the relationship between strength rating of each belief category, race and parent gender, covarying for SES and age given their known relationships with the factors. There was a significant effect of age, $F(11, 211) = 3.29, p < .001$, parent gender, $F(11, 211) = 2.33,$

$p < .01$, and race, $F(11, 211) = 4.36, p < .001$ on the 11 beliefs. Separate univariate ANOVAs (using corrected alpha of 0.01) revealed significant relationships between age and Disharmony beliefs, $F(1, 221) = 7.67, p < .01$. Additionally, significant relationships were found between race and Physical Causes, $F(1, 221) = 11.51, p < .001$, partial $\eta^2 = .05$; Spiritual Problems, $F(1, 221) = 9.39, p < .01$, partial $\eta^2 = .04$, and Disharmony, $F(1, 221) = 10.67, p < .001$, partial $\eta^2 = .05$. Specifically, Black parents had stronger beliefs ($M = 2.35$) in Spiritual Causes than White parents ($M = 1.87$); Black parents had stronger beliefs ($M = 1.73$) in Disharmony beliefs than White parents ($M = 1.32$); and White parents had stronger beliefs ($M = 4.18$) in Physical Causes than Black parents ($M = 3.72$).

The relationship between barriers (mean score) and strength rating of each belief category was examined with correlations. There were small negative correlations between barriers and Physical Causes ($r = -.14, p < .05$), barriers and Personality/Emotional Struggles ($r = -.17, p < .01$), barriers and Trauma belief ($r = -.18, p < .01$), and barriers and Family/Parenting Issues ($r = -.18, p < .01$). These results suggest that parents who perceived more barriers endorsed weaker beliefs in physical, personality/emotional, trauma, and family/parenting causes of mental health problems in children.

Discussion

This study aimed to explore help-seeking and service utilization patterns in Black and White mothers and fathers by examining their ability to recognize child mental health problems, exploring their beliefs about causes of mental health problems in children, and examining their perceived barriers to service utilization for their children. Overall, over one-third of parents in this sample had used mental health services in the past. Consistent with the literature, women and white parents had used services more often than men and black parents (Mahalik, Good, & Englar-Carlson, 2003; Sue & Chu, 2003). Similarly, a third of the children described in this study had used mental health services in the past, 83% of whom utilized the mental health sector for these services. This mental health utilization rate is much higher than expected, given that previous research found higher rates of mental health service utilization from non-mental health sectors including schools and primary care settings (Power et al., 2005). Of note, 62% of the children who had utilized mental health services did so from more than one sector, thus it is likely that these children may have utilized schools and/or primary care settings first or in tandem with the mental health sector.

Mental health prevalence rates in this study were lower than national estimates given that 11% of parents reported having a current mental health problem and half of them reported a strong likelihood of seeking help from a mental health professional for these problems. Epidemiological research (Kessler, Chiu, et al., 2005) described yearly

prevalence rates of mental health disorders at 26% with only one-third actually receiving services. Thus, this study had fewer parents reporting mental health problems and more parents indicating that they would seek help or were already utilizing services. Given that parents' actual mental health status was not assessed formally, it is likely that some parents would have met criteria for a mental health disorder but are unaware. Also as discussed in detail earlier in this paper, while help-seeking intentions can be a strong predictor, intentions rarely equate to actual service utilization due to numerous barriers.

Child mental health prevalence rates in this study were reported at 18% and thus were slightly higher than the national estimates of 12-14% (Costello et al., 2005; Waddell et al., 2002). However, it is important to note that utilization estimates have varied significantly given that past research has estimated child service utilization rates as high as 21% (U.S. DHHS, 1999). In this study, almost 70% of parents who described having a child with a current mental health problem reported that they would seek help for their child. These reports are much higher than national estimates which show that less than half of children with a diagnosable mental health disorder receive services (U.S. DHHS, 1999). However, given the increase in service utilization rates for adults over the past 10 years (Kessler, Chiu, et al., 2005); it is probable that child service utilization rates have also increased. Thus, more updated epidemiological research on child mental health utilization is needed and already underway (Kessler et al., 2009).

The specific aims of this study were examined with 12 hypotheses. The first hypothesis accurately predicted that parents would be more likely to recognize the externalizing and internalizing vignettes as problematic compared to the control vignette. This difference was quite large and indicated that our experimental process was

successful. Specifically, in comparison to the control vignette, parents were 9.7 times more likely to recognize the internalizing vignette, and 14.5 times more likely to recognize the externalizing vignette. Consistent with previous research (e.g., Wu et al., 1999), problem recognition was slightly better with externalizing than internalizing problems although this difference was marginal. This marginal difference is not surprising given inconclusive findings of previous reviews with respect to parental recognition of internalizing and externalizing problems (Zwaanswijk et al., 2003). It is also notable that parents who did recognize the vignettes were more confident in their ratings than parents who did not recognize these problems. These results mean that parents who recognized the problem vignettes were confident that a problem was indeed present rather than just guessing about it. Furthermore, Black parents were more confident in their ratings of externalizing symptoms than White parents. These results indicate that parents have a sense of their own abilities to recognize problem behaviors in children. The fact that Black parents were more confident in their ratings of externalizing problems indicates that they may need more guidance and specific strategies on how to recognize internalizing problems in their children. This information is relevant to intervention researchers; it will be important to conduct qualitative research with parents who recognize problems in order to gain an understanding of their cognitive process in determining whether a set of symptoms is indeed problematic or not.

Although the majority of parents in this study recognized the internalizing (52%) and externalizing (61%) vignettes, it is important to note that many parents still did not recognize these problems. Previous research has demonstrated similar patterns. In one study less than half of the parents with a child with a mental health disorder recognized a

problem (Sayal, 2006). Given that problem recognition is the gateway to help-seeking (Cauce et al., 2002), it is crucial to understand the factors that contribute to problem recognition in order to increase help-seeking intentions and mental health service utilization.

The contribution of problem recognition to help-seeking intentions was further explored in hypothesis 2, which accurately predicted that parents who recognized a problem would be more willing to seek help. Specifically, when parents recognized an internalizing problem, they were 35 times more likely to seek help and when they recognized an externalizing problem, they were 69 times more likely to seek help. Therefore, as Cauce et al. (2002) described when parents recognize a problem, they tend to seek help. Furthermore, results from this study indicated that when parents recognized the vignette child as having an externalizing problem, they almost always indicated that they would seek help, which is also consistent with the literature (Wu et al., 1999).

As the relationship between problem recognition and willingness to seek help was well-established in this study, an understanding of the factors contributing to parents' problem recognition and willingness to seek help was sought. Interestingly, in several analyses the factors contributing to problem recognition were not always congruent with the factors contributing to willingness to seek help. For instance, hypothesis 3, which predicted a higher likelihood of problem recognition and willingness to seek help for the male rather than the female vignettes, was only partially supported. Specifically, parents who recognized problems did so regardless of the gender of the child in the vignette. This is consistent with Teagle (2002) who also found that child gender did not predict parental problem perception in children who met *DSM-IV* criteria for psychiatric

diagnosis. Given that the vignettes in the current study were written to meet criteria for *DSM-IV* psychiatric diagnoses, it is probable that with more variability in psychiatric symptomatology like what occurs in the real world, child gender may actually have a significant relationship with problem recognition; however examination of this relationship is beyond the scope of the current study.

In contrast, child vignette gender did predict willingness to seek help but only for internalizing and not externalizing problems. Specifically, parents were more willing to seek help for a male with an internalizing problem than a female with the same problem. In their review, Zwaanswijk et al. (2003) reported that parents sought help more often for boys in young childhood and early adolescence; however, in late adolescence the reverse was found with parents seeking more help for girls. Given that the child vignettes used in this study were all the same age of 10 years old, the current finding is consistent with previous research. Thus, as hypothesized, we would expect that more parents would be willing to seek help for the boy in the vignette than the girl in the vignette regardless of the problem type given the age of the child vignette. The fact that this relationship was not found for externalizing problems is likely attributable to the perceived stronger impact of externalizing problems over internalizing problems on a child's functioning. Specifically, the previous hypotheses established that almost all parents who recognized an externalizing problem were willing to seek help, thus there was less variability in responses. Gender (as has been shown in hypothesis 3) did not affect this relationship. Additionally, internalizing problems are usually seen as typical problems for girls and more unusual for boys (Rescorla et al., 2007; Zwaanswijk et al., 2003); this pattern

further increases the likelihood that more parents would be willing to seek help for a boy with internalizing problems than a girl with similar problems.

Hypothesis 4 examined the relationship between perceived need variables, problem recognition, and willingness to seek help. Consistent with previous research (Power et al., 2005; Teagle, 2002), perceived severity was significantly related to internalizing problem recognition, externalizing problem recognition, and willingness to seek help for an externalizing problem. Of note, perceived severity was not significantly related to internalizing help-seeking intentions. This finding is likely due to the strength of the relationship between internalizing problem recognition and willingness to seek help; such that when parents recognized an internalizing problem (which in this study was more difficult to recognize than an externalizing problem), they were willing to seek help regardless of how severe they perceived the problem to be.

Hypothesis 4 also revealed that perceived functional impairment was significantly related to externalizing problem recognition and willingness to seek help for an externalizing problem. Although previous research suggests that perceived functional impairment is related to both internalizing and externalizing problems (Power et al., 2005), the current finding further emphasizes the higher burden externalizing symptoms are perceived to have on parental and child functioning. Thus, even though both internalizing and externalizing vignettes in this study met criteria for *DSM-IV* diagnoses by clinician interpretation, parents' own perceptions of impairment apparently differed, with externalizing symptoms viewed as having a more significant impact on the child's functioning than internalizing symptoms. This finding is especially relevant for intervention program development. Specifically, parents will likely benefit from

psychoeducation on how, when, and what internalizing symptoms should be of concern to them. Prevention should also be one of the main focus areas of these parental interventions, with researchers providing psychoeducation to parents about how internalizing symptoms tend to be less visible externally but how the symptoms can easily spiral downward with worsening impact if appropriate help is not sought early. Overall, the findings that parental perceived severity and functional impairment are significantly related to problem recognition and willingness to seek help (which in turn are related to mental health utilization) emphasizes the importance of parental knowledge and the need to empower parents to become keen assessors of their own children's functioning.

The null findings from hypothesis 5 between family characteristics, problem recognition, and willingness to seek help were surprising given previous research (Cauce et al., 2002). These results are likely because the child vignettes in the current study were only simulated and not actually related to these parents' lives or about their own children. Thus, family size, parent education, and parent psychopathology may be variables that impact problem recognition and help-seeking intentions in real life situations but these relationships could not be examined in the current study. Additionally, this was a group of highly educated Black and White parents, with no differences found in years of education by race. Thus, it is probable that when differences in education are consistent across racial groups, some of the findings of disparities in mental health utilization and help-seeking are neutralized.

Results from hypothesis 6 indicated that mothers recognized and were more willing to seek help for internalizing problems than fathers. This finding is consistent

with previous research that has established differing utilization rates for males and females, with women utilizing services more often than men (Koopmans & Lamers, 2007; Mahalik et al., 2003). These findings contribute to our understanding of why women and girls utilize mental health services more often than men and boys. Specifically, given the strong relationships between service utilization, problem recognition, and help-seeking intentions, it is likely that mothers, who are better at recognizing mental health problems than fathers, also use mental health services for themselves and their children more often. Therefore, increasing parents' (especially fathers') internalizing problem recognition skills should increase their help-seeking intentions and thus utilization.

Hypothesis 6 also revealed that White parents were more likely to recognize internalizing problems than Black parents. Again this is consistent with past research that reported lower rates of service utilization by Black individuals and children (Roberts et al., 2005; Snowden & Yamada, 2005). This could be explained by differing problem thresholds that have been shown to vary across cultures/racial groups (Weisz & Eastman, 1995). Specifically, due to the more covert nature of internalizing problems, it is likely that Black parents were less likely to recognize the internalizing vignette because they have different thresholds for classifying mental health problems. In other words, if symptoms are not related to obvious impairment then the symptoms are not "problematic" (Roberts et al., 2005). Furthermore, the lack of findings for race and gender differences with the externalizing vignette could be attributed to the strong relationship between problem recognition and willingness to seek help for an externalizing problem. Specifically, the externalizing vignette in this study appeared to

have been perceived by most parents as severe and likely to cause significant functional impairment to the extent that race and parental gender did not impact this finding. This explanation is reinforced by the fact that Black parents were more confident in their rating of externalizing symptoms but not internalizing symptoms (as shown in hypothesis one).

Neither ethnic identity nor parental SES were significantly related to problem recognition or willingness to seek help. These findings are likely attributable to the lack of variability among these variables. Specifically, even though Black parents scored higher on the ethnic identity measure, within group differences were not found (i.e. most Black parents score high on the measure). Similarly, SES was positively skewed with the majority of families falling in the minor business/professional range and averaging a yearly income of \$50,000-\$65,000/year. Thus with more variability across participants, differences may have been found. Another possibility that requires further exploration in future studies is that ethnic identity might not significantly impact problem recognition or help-seeking intentions; however more variability in the measure will be needed to explore this question thoroughly.

Other potential contributors to the relationship between problem recognition and willingness to seek help were investigated in hypotheses 7 and 9. Specifically, analyses from hypothesis 7 showed that parents who attributed the cause of mental health problems to poor friendships and economic problems were more likely to recognize internalizing problems. Of note, hypothesis 9 revealed that mothers were more likely to attribute the cause of mental health problems to poor friendships. These findings were contrary to what was expected given that friendships and economic problems are types of

sociological beliefs that were expected to decrease problem recognition, especially given that they are less focused on individual/internal factors and more focused on environmental/external factors (Yeh et al., 2005). Thus, it appears that attribution of mental health problems to external causes actually increased the likelihood of internalizing problem recognition. It is probable that parents (mostly mothers in this study) who attributed the cause of mental health problems to these external factors (poor friendships and economic problems) are better able to recognize these problems because they themselves are removed from the situation as potential causes. Alternatively, parents who attribute mental health problems to internal factors, may engage in self-blame and may be unwilling to admit to being at least partially to blame for a child's mental health problems. This idea is in line with previous vignette research by Raviv and colleagues who found that parents were more willing to refer a friend's child to professional mental health services than their own child (Raviv, Sharvit, Raviv, & Rosenblat-Stein, 2009).

Hypothesis 7 also revealed that parents who endorsed spiritual beliefs were more willing to seek informal help (religious leaders, family/friends, and self-help) for both internalizing and externalizing problems. Of note, hypothesis 9 indicated that Black parents were more likely to attribute the cause of mental health problems to spiritual reasons. These findings were as expected given previous research on spirituality beliefs and service utilization (Yeh et al., 2005). Additionally, research has frequently shown increased utilization of clergy by African Americans for mental health services (Ayalon & Young, 2005). Parental beliefs in spiritual causes of mental health problems and parents' increased willingness to seek help from a religious leader (among other informal

help sources) are inextricably linked. Thus, it makes sense that parents who attribute mental health problems to poor spiritual beliefs would seek help from their pastor. Additionally, it is likely that these parents (mostly Black in this study) are more open to alternate sources/providers of mental health services due to their own hesitation/perceived barriers to using formal mental health services. Alternatively, parents who endorse spiritual beliefs may have a stronger affinity for informal help-seeking because formal services do not usually address spiritual beliefs in standard care. However, there is emerging evidence that indicates the importance of collaboration with religious leaders in order to increase service utilization (Milstein, Manierre, Susman, & Bruce, 2008; Wang, Berglund, & Kessler, 2003).

The relationships between professional/personal mental health experience and parental problem recognition were examined in hypothesis 8. The finding that previous experiences with anxiety and mental health (in general) were significantly related to internalizing problem recognition was not surprising; however, the null finding for externalizing problem recognition was unexpected. Of note, hypothesis 9 revealed that both mothers and White parents had more previous professional/personal mental health experience than fathers and Black parents. Previous research indicated that knowledge of mental health problems and associated treatments increase help-seeking intentions and service utilization (Power et al., 2005). Thus, the fact that externalizing problem recognition was not significantly related to previous mental health experience in this study indicates that other factors such as severity and functional impairment (see hypothesis 4) are the primary factors that influence externalizing problem recognition. It appears that (at least as assessed in this study), externalizing problems were so overt and

easily recognizable by most parents that having previous experience did not increase the odds of recognizing these problems. However, given the covert nature of internalizing problems, prior knowledge did contribute to recognition of these clusters of symptoms. These findings again emphasize the importance of parental psychoeducation about mental health symptoms, especially internalizing problems which appear to be harder to recognize.

The finding that mothers and White parents were more likely than fathers and Black parents to report previous professional/personal mental health experiences could help explain some of the variability in problem recognition and help-seeking intentions, especially with internalizing problems. Alternatively this finding could also mean that White parents and mothers were simply more comfortable or less concerned about reporting their previous professional/personal mental health experiences in this study. However, given that Black individuals have lower rates of mental health disorders than White individuals (Harris, Edlund, & Larson, 2005; Sue & Chu, 2003), it is more likely that less exposure to and experience with mental health illness is contributing to some of the differences in problem recognition and help-seeking intentions found between Black and White parents.

Post-hoc analyses indicated that the relationships between previous mental health experience, problem recognition, and help-seeking intentions were also found among parents whose own children had used mental health services in the past. Specifically, parents of children who had used mental health services in the past were more likely to recognize an internalizing problem, more willing to seek help for both internalizing and externalizing problems, and had stronger intentions to use mental health services for their

children in the future. Thus, prior knowledge/experience increases problem recognition and help-seeking intentions which in turn should increase mental health service utilization and would be another prime area for intervention researchers to target (i.e. increasing parental knowledge/experience with child mental health; Power et al., 2005).

Examination of the Barriers to Utilization measure revealed significant differences between mothers' and fathers' perceived barriers to services utilization for their children, with fathers endorsing significantly more barriers than mothers. This is consistent with previous research indicating lower rates of mental health service utilization in men compared to women (Mahalik et al., 2003), decreased perception of the need for therapy in fathers compared to mothers (Phares, Rojas, Thurston, & Hankinson, 2010), decreased interest in child-related therapy in fathers compared to mothers (Duhig et al., 2002), and tendency for fathers' to normalize problematic behaviors in their children (Phares et al., 2006). Fathers' increased perception of barriers to service utilization for their children is likely underlying some of the gender differences in problem recognition and willingness to seek help. In other words, it is likely that because fathers perceive more barriers to service utilization, they have less experience and thus are less able to recognize internalizing problems and less willing to seek help for these problems.

There were no race differences in overall perception of barriers which was unexpected. Specifically, previous research using separate measures of barriers to service utilization and attitudes toward service utilization found race differences in perception of barriers but not attitudes; and gender differences in attitudes toward mental health treatment but not perception of barriers (Thurston & Phares, 2008). The lack of

findings could be attributed to the measures used in these studies. Specifically, Hypothesis 10 explored the relationships among three subsets of barriers (financial, structural, and attitudinal) as assessed with the Barriers to Utilization measure. Of note, internal consistency reliabilities were poor for the financial and structural subscales and acceptable for the attitudinal subscale. Furthermore, strong correlations were found among the subscales. These patterns lead to the possibility that the Barriers to Utilization measure may not have been a good assessment tool for both structural and attitudinal barriers but rather was measuring the same underlying concept. Furthermore, given that there are additional barriers that are unique to individuals of racial and ethnic minority groups (including mistrust and fear of treatment, racism/discrimination, differences in language and communication, and cultural barriers in general; Thompson et al., 2004), it will be important to identify/develop measures that take into account the unique experiences of racial and ethnic minorities in their own help-seeking process. Thus, examination of the impact of attitudinal and structural barriers would need to be reassessed in future studies with more stable measures.

Hypothesis 11 revealed that parents who were more willing to seek help (either from formal or informal sources) were willing to do so regardless of the type of problem being experienced by the child. However, parents who sought informal help for internalizing problems almost always did so for externalizing problems as well and vice versa (i.e. parents who sought formal help were just as likely to do so for both internalizing and externalizing problems). This alludes to the possibility that source of help-seeking is consistent across parents regardless of problem type. However, this study also showed a strong connection between formal and informal help-seekers. Thus,

seeking informal help is tied to the likelihood of seeking formal help. As researchers, our goal is to increase parental help-seeking intentions, which should then increase utilization of mental health services for children. Given such a strong relationship between formal and informal help-seeking intentions, intervention researchers should target their interventions on two levels. First, identify the help-seekers from the non-help-seekers and create separate interventions for each of these groups of parents. Second, among the help-seekers, it will be important to establish interventions for those who are choosing to seek informal help even in situations that require formal help such as a child meeting criteria for a *DSM-IV* diagnosis. Psychoeducation will also be helpful to teach parents how to recognize when formal versus informal help should be sought (Stiffman et al., 2004). Additionally, informal help sources such as religious leaders should be engaged in the process of increasing formal mental health service utilization either through increasing their own awareness of when formal versus informal help should be sought, providing on-site clinicians to provide treatment when needed, and/or maintaining an updated referral list with community clinicians who can provide formal services to these families. The C.O.P.E (Clergy Outreach and Professional Engagement) program was developed to facilitate and increase the collaboration between clinicians and clergy (Milstein et al., 2008); this and other strategies (see Harris, Edlund, & Larson, 2006) can be utilized to promote and increase mental health utilization in families who would ordinarily prefer informal help sources.

Consistent with previous research, parents who perceived more barriers to service utilization were less willing to seek formal help for externalizing problems (Kekorian et al., 2006; Sareen et al., 2007). The fact that this relationship was not found for the

internalizing problem could be attributed to parents being more open to seek help from any available source for internalizing symptoms; thus, there was no significant impact on their formal help-seeking. However, given that externalizing problems are viewed as more impactful, parents are more likely to seek formal help sources for these symptoms, thus making them more susceptible to increased barrier perception.

Hypothesis 12 examined data from parents who had at least one child with a current mental health problem and revealed that neither perceived barriers, ethnic identity, nor beliefs predicted parents' intentions to utilize mental health services in the future for their children. Given that previous research has found relationships among these factors (Thurston & Phares, 2008; Yeh et al., 2005), it is likely that the small sample size (45 parents) may have resulted in insufficient power to predict this relationship. However, it was notable that most parents (69%) who reported that their child had a current mental health problem reported being quite or extremely likely to seek help. This finding is likely inflated by social desirability and the fact that intentions to use services were being assessed as opposed to actual service utilization. Additionally, consistent with previous research (Garland, Haine, & Boxmeyer, 2007; Hawley & Weisz, 2005) parental satisfaction with previous mental health services was related to higher intentions to use services for children in the future. Thus, clinicians should not only assess satisfaction with their own provided services but also examine satisfaction with previous services.

Post-hoc analyses examining relationships among strengths of beliefs revealed several patterns. Specifically, parents were more willing to seek formal help for internalizing problems as their beliefs in personality/emotional and economic causes of

child mental health problems increased and beliefs in trauma causes decreased. Alternatively, parents were more willing to seek formal help for externalizing problems as their beliefs in economic causes of child mental health problems increased. Thus consistently, parents who believed that mental health problems were related to economic difficulties were more open to seeking formal help. This pattern is likely because economic causes are external factors, thus perceived by parents as outside of their immediate control, which emphasizes the need for formal help. Although personality/emotional struggles are more internal factors (i.e. factors within the child), the specific items (such as a child's lack of self-discipline, self-control, or difficulties with anger, a child's emotional struggles, and a child going through a certain age or developmental stage) are more related to transient factors that are probably perceived by parents as malleable and tied to internal struggles, thus parents are able to see the potential benefit of seeking help from a formal source.

Results also indicated that Black parents had stronger spiritual and disharmony with nature beliefs than White parents whereas White parents had stronger physical cause beliefs than Black parents. This finding helps further explain some of the race differences found in sources of help-seeking. Specifically, given that Black parents tend to attribute child mental health problems to spiritual reasons their tendency to seek help from clergy is reasonable. Additionally, White parents' tendency to seek help from formal sources more often is also reasonable given that they most commonly attribute mental health problems to physical causes. This information will be relevant to intervention researchers and clinicians. Specifically, these findings encourage the use of

differing strategies to engage and maintain Black and White parents in treatment based on their beliefs (Yeh et al., 2005).

Finally, there was a significant relationship between parents' barrier endorsement and beliefs in physical, personality/emotional, trauma, and family/parenting causes (biopsychosocial beliefs) of mental health problems in children. Given that the Barriers to Utilization measure examined barriers to formal mental health service utilization, it is not surprising that those parents who perceived more barriers also had weaker beliefs in the biopsychosocial causes of mental health problems in children. Thus, it will be pertinent for clinicians and researchers attempting to increase service utilization to examine beliefs in addition to barriers to service utilization, as the types of beliefs parents endorse can help guide the types of referrals that are given. Specifically, since the goal is to increase utilization and results from this study have shown that informal help seeking is related to formal help seeking, one of the important aspects of increasing utilization appears to be getting parents to seek some kind of help first. Then, their first help-seeking source (i.e. pediatrician, teachers, pastor, etc) could assist the parents with getting into the specific type of service that would be most effective for their child's problems. Given emerging research on the adaptation of evidence-based treatments to minorities (Horrell, 2008), the findings about the varying beliefs of parents in this study will also be useful in adapting treatments further to meet the needs of minorities and thus increase and maintain treatment utilization.

Limitations and Future Research

Like all studies, this study had some limitations which can be used to inform future research. First, as with all other cross-sectional studies, this study only assessed a

period in time of these parents' lives, thus causal relationships could not be drawn (Field, 2009; Teagle, 2002). Future studies should consider longitudinal data collection in order to fully examine the impact of problem recognition and willingness to seek help in relation to child mental health utilization. The generalizability of this study is also limited given that participants were not sampled nationally. More representative national sampling could be a goal of future research projects on this topic. Additionally, the sole use of parental self-report measures is a study limitation given that parents may have been influenced by social desirability among other factors, thus leading to the underreporting of information. Future projects could strive to obtain data from multiple sources to further support study findings.

This study utilized vignettes to provide some control of child characteristics and to give parents some distance from their own children's mental health histories. However, because the vignette used in this study focused on a 10 year old child, we were unable to examine the impact of age on problem recognition and willingness to seek help. Future studies should use multiple age ranges such as early childhood (especially given the dearth of research in this area), school age, and adolescence. Additionally, vignette descriptions used in this study all met criteria for *DSM-IV* diagnoses which was necessary to allow for examination of differences and similarities between clinically assessed need and parental perceived need. However, this practice limited the ability to assess parental threshold differences of the various levels at which parents recognize clinical symptoms and begin to consider informal and formal help-seeking. More variability in psychiatric symptomatology would also allow for a more detailed exploration of the impact of child gender on problem recognition (Zwaanswijk et al., 2003). Thus, future research should

explore mild, moderate, and severe internalizing and externalizing vignettes in order to better understand how sub-threshold symptomatology may impact problem recognition and help-seeking intentions.

As noted above, there were some limitations with several of the measures. Specifically, the Beliefs About Causes measure did not focus on causes of mental health problems for specific mental health diagnoses (i.e. parents were asked about their beliefs about causes of mental health problems in general, rather than beliefs about causes of anxiety, ADHD, etc). It is possible that the type of mental illness may impact what parents perceive to be causing these symptoms (Yeh et al., 2005). Thus, it would be beneficial for future research to target specific mental health problems and examine beliefs about causes of each specific mental health problem along with barriers to seeking services for that specific problem. Both the Multigroup Ethnic Identity Measure (MEIM) and the Hollingshead SES scores had poor variability. This limited variability likely contributed to several null findings in this study. Future research examining these factors should recruit a wide range of participants at various stages on the MEIM and at various levels of SES to better assess the impact of these variables on problem recognition, help-seeking intentions, and mental health service utilization. Poor variability in Barriers to Utilization measure also resulted in an inability to properly assess differences among the subscales of financial, structural, and attitudinal barriers. The Barriers to Utilization measure was the most comprehensive measure available at the beginning of the study but future studies should try to develop more comprehensive and established measures that separately examine attitudes and structural barriers.

On the questions following the vignette measure, the high correlations between severity and problem threshold, as well as functional impairment and family impact had an effect of our analyses. Specifically, these patterns limited the extent to which the effects of all four variables on problem recognition and help-seeking could be examined. Future studies should provide more clear and succinct operational definitions for each of these concepts to avoid overlap and assessment of the same underlying concepts (Power et al., 2005).

There were some limitations with the small sample size of parents who had children with mental health difficulties; thus examining the various factors that were hypothesized to be associated with future mental health service utilization was difficult (Singh, 2003). Future studies should oversample for parents who have children with mental health problems in order to fully explore the relationship between ethnic identity, barriers, and beliefs on future intentions to utilize mental health services for children.

Finally, although there are numerous advantages to quantitative research, there are also some limitations. Specifically, due to the quantitative nature of this study, it was impossible to determine what those parents who recognized symptoms did differently or similarly to parents who did not recognize symptoms. The process of problem recognition and help-seeking intent was lost in the quantitative nature of this study. The richness of qualitative research might allow for exploration of some of these underlying factors that contribute to the end goal of recognition and help-seeking (Bussing, Zima, Gary, & Garvan, 2003; Singh, 2003). Future studies should explore qualitative research options with parents who recognize symptoms to help understand their decision-making process in determining whether a set of symptoms is indeed problematic or not. Results

from that type of investigation could be used to create psychoeducational interventions to teach other parents these skills.

Clinical Significance and Conclusions

Guided by several theoretical models, this study set out to explore factors related to help-seeking and service utilization in African American and Caucasian mothers and fathers based on their ability to recognize problems, their perception of barriers, and their beliefs. There are several implications of this study both for intervention researchers and practitioners alike.

First, despite the finding that many parents are able to recognize severe problem behaviors when given a hypothetical situation, there were several parents who did not recognize these problems. Thus, there is a need for interventions aimed at increasing parents' abilities to recognize problems and seek help from appropriate sources for these problems. This finding underscores the importance of psychoeducation and empowering parents with the skill set to be able to recognize problematic behaviors (especially internalizing problems) and seek appropriate help when needed. The knowledge that problem recognition often leads to willingness to seek help, further underscores the importance of increasing problem recognition skills in parents.

Second, clinicians and researchers alike need to think more broadly than solely considering treatment in a typical outpatient setting where patients come to the clinics to receive services. Current and past research has shown that youth and parents are often reluctant to attend outpatient appointments and are receiving mental health treatment from non-mental health specific sites. Thus, rather than insisting parents and youth come to outpatient providers, we may need to develop strategies to bring the services to them.

Furthermore, given all the barriers and obstacles parents perceive around mental health care, typical mental health settings are not sufficient to provide services to parents across race and gender groups. Thus, more innovative programs should be used, such as the Children's Hospital of Orange County/University of California, Irvine Initiative for the Development of Attention and Readiness (CUIDAR) early intervention parent training program which begins at an early age and is innovatively set up to be more easily accessible to minority families (Lakes et al., 2009).

Additionally, providing therapeutic services at primary care provider offices (Brown, Wissow, Zachary, & Cook, 2007; Lieberman, Adalist-Estrin, Erinle, & Sloan, 2006), providing high quality clinical services at school (Owens & Murphy, 2004), and utilizing clergy to refer and/or initiate therapeutic services (Milstein et al., 2008) are promising ways to initiate and maintain service utilization. Given that parents often do not bring up issues of mental health to their children's primary care doctors, clergy or school staff (Briggs-Gowan, Horwitz, Schwab-Stone, Levanthal, & Leaf, 2000), interventionists should also target these service providers and teach problem recognition skills and ways to assess and respond to mental health problems in children. Research comparing adult mental health services in primary care versus specialty mental health settings found that patients seen in primary care settings tend to have fewer visits and treatment is often less effective than in specialty mental health centers (Uebelacker, Wang, Berglund, & Kessler, 2006). Additionally, more severely mentally ill individuals tend to receive services from specialty mental health rather than primary care settings (Druss & Rosenheck, 2000; Uebelacker et al., 2006). However, an innovative mental health delivery program in Canada found effective results of treatment when they brought

clinicians and psychiatrists to primary care offices and delivered services there (Kates, Crustolo, Farrar, & Nikolaou, 2002). Similar programs can be used here in the U.S. by clergy, primary care providers, and schools in order to maintain effectiveness of treatment while allowing easy access to services. Unfortunately, research comparing child mental health services across settings (primary care, specialty mental health, and school) was not found. Thus, more research is needed on the quality and effectiveness of child mental health services across settings.

Third, when attempting to address help-seeking and service utilization disparities; all contributing factors need to be taken into account. The stronger and more lasting interventions will likely be those that target multiple contributing factors including perceived need variables, family characteristics, demographic variables, beliefs, and experience as shown in the study model. Targeting these interventions and providing psychoeducation on the availability of efficacious treatments for both internalizing and externalizing symptoms should work in tandem to increase service utilization. Given that study variables interact with externalizing and internalizing symptoms differently, mothers and fathers differently, and ethnic minorities and white parents differently, it is worth considering separate models and thus separate interventions aimed at addressing these disparities (Cauce et al., 2002; La Greca, Silverman, & Lockman, 2009). Specifically, parents appear to need more guidance around recognizing internalizing symptoms in particular, and although not assessed in this study, parents will also likely benefit from understanding subclinical symptoms and when referral to formal versus informal help sources should occur. Additionally, with respect to gender, parents need to be encouraged to seek help for girls even when they have internalizing symptoms rather

than ignoring the problems or dismissing the problems due to “girls being girls.” Fathers are at a disadvantage when it comes to problem recognition and help-seeking for internalizing symptoms, thus preventive interventions should target increasing skills in these areas and addressing barriers that fathers perceive to limit access to service utilization for their children. Similarly, with respect to race differences, Black parents need more guidance on how to recognize internalizing problems. Furthermore, given their limited experience with child mental health problems, Black parents will need even more guidance on how to recognize problems and where to seek help when problems occur in their children. As Black parents are more comfortable going to their spiritual advisors for help, educational efforts should target clergy to support and provide referrals to parents when specialized mental health services are needed. The clinical implications of having multiple targeted models and interventions based on type of problem behaviors, parental gender, and parental race/ethnicity are significant because these models will guide the way we provide services to youth and their families, refer them to providers, and teach them how to seek out services for themselves.

In conclusion, given that many lifetime mental health problems emerge in childhood and adolescence (Kessler, Berglund, et al., 2005), addressing factors that contribute to mental health utilization in childhood is crucial. Previous research describes parents as the gate keepers to child mental health service utilization (Stiffman et al., 2004) and this study showed a significant difference between parents’ perceived need and clinically assessed need. Thus, as clinicians and researchers, we must take these two sides into account when creating interventions and providing therapeutic services. Unless parents are able to perceive a need for services, they will neither initiate

nor maintain treatment participation. Given that problem recognition and help-seeking intentions are strongly related and our goal is to increase service utilization, the good news is that there are several places along the help-seeking process where we can intervene. Although we should aim to address all contributing factors, improving parental problem recognition appears to be a good place to start.

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Appendices

Appendix A: Letter of Invitation

Dear Parent,

I would like to invite you to participate in a study about seeking help for your children. The purpose of this research project is to better understand how typical parents and their children seek help for different things. You are being asked to read some stories and answer the questions that follow. You are also asked to complete a series of questionnaires that ask about you and your children's previous use of mental health services, your beliefs, and some background information. You **do not** need to have received mental health services in the past to participate in this study. The entire study should take about 30-40 minutes.

Your participation in this survey is completely voluntary. You are free to participate in the study or withdraw at any time without penalty. Your consent to participate is shown by your decision to complete the questionnaires. We will not need to contact your child to participate in this study. The potential benefits for participating in this study are raising your awareness about mental health services. There are no known risks for those who take part in this study.

All participants who provide their contact information, using the business-reply post cards, will be entered into a drawing for one of six prizes. All contact information provided will be kept separate from questionnaires which will be identified by subject code to protect your privacy. The prizes include: one \$100 cash prize, two \$50 cash prizes and three gift certificates from merchants in the surrounding community.

Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, and the USF Institutional Review Board, its staff and other individuals acting on behalf of USF may inspect the records from this research project. If you have any questions about your rights as a person who is taking part in a research study, you may contact the Division of Research Compliance of the University of South Florida at (813) 974-5638.

If you have any questions about this research study, please contact Idia B. Thurston, Department of Psychology, University of South Florida, 4202 E. Fowler Avenue., PCD 4118G, Tampa, FL 33620, 813-974-9222, ibinitie@mail.usf.edu. Thank you.

Sincerely,

Idia Binitie Thurston, M.A.
Psychology Doctoral Candidate

Appendix B: Referral Letter

Dear Parent,

Thank you for participating in our research study. As you recall, this study was about understanding how typical parents and their children use mental health services and the reasons why they use mental health services. Since some people wonder about where to receive services, this letter is being sent out to **all participants** regardless of their answers to the survey.

In case you are interested in seeking mental health services, we wanted you to know that most health insurance companies cover some type of mental health service. Therefore, you should first check with your insurance company to see what types of mental health services are covered. Many insurance companies also have a list of “preferred providers” from whom you may seek treatment. Please get this information clarified with your insurance company if you are concerned about payment for mental health services.

If you do not have health insurance or if your health insurance does not cover mental health services, you may want to consider one of the following facilities in the Tampa Bay area (all of which have either low-fees or fees on a sliding scale):

USF Psychological Services Center At USF in the Psychology Department	(813) 974-2496
Mental Health Care 5707 North 22 nd street, Tampa, FL	(813) 272-2244 www.mhcinc.org
Northside Mental Health Center 12512 Bruce B. Downs Blvd, Tampa, FL	(813) 977-8700 www.northsidemhc.org
Child and Family Counseling Hillsborough County	(813) 744-5953
Peace River Center Locations in Polk, Hardee, & Highlands Counties	(863) 519-0575 www.peace-river.com

If you do not live in the Tampa Bay area, consider using the “Find a Psychologist” referral service that is run through the American Psychological Association. This service can be accessed on-line (<http://locator.apahelpcenter.org>) or through a toll-free phone call (1-800-964-2000). In addition, most communities throughout the United States and Canada have a Community Mental Health Center, so a quick call to the local information center might help you gain access to the services in your community, if you are interested.

If you have any questions about this research study, please contact Idia Binitie Thurston, Department of Psychology, University of South Florida, 4202 E. Fowler Avenue., PCD 4118G, Tampa, FL 33620, 813-974-9222, ibinitie@mail.usf.edu. Thank you.

Sincerely,

Idia Binitie Thurston, M.A.
Psychology Doctoral Candidate

Appendix C: Boy Internalizing Vignette with follow-up questions

Please read the descriptions of children below and answer the questions that follow.

A.) Michael is a 10-year-old boy who has been overly worried and nervous about various things at home and school for the past 6 months. Some of his worries include getting perfect grades at school, his performance on the soccer team, and keeping his room tidy. Michael has also been experiencing some difficulty concentrating at school due to his worrying and as a result his grades are beginning to fall. He is easily tired throughout the day and is unable to sleep at night. Recently, Michael's classmates have been making fun of him. He realizes that he worries too much and wishes he could control it so he could be more like other children.

1. How serious would you rate Michael's problems compared to other 10-year-olds?

1 Not at all Serious	2 A little bit Serious	3 Moderately Serious	4 Quite Serious	5 Extremely Serious
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2. How concerned would you be about Michael's problems?

1 Not at all Concerned	2 A little bit Concerned	3 Moderately Concerned	4 Quite Concerned	5 Extremely Concerned
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3. How much do you think these problems would affect Michael's daily activities?

1 Not at all	2 A little bit	3 Moderately	4 Quite	5 Extremely
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4. How much do you think these problems would impact Michael's family?

1 Not at all	2 A little bit	3 Moderately	4 Quite	5 Extremely
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5. Do you think Michael has a mental health problem?

Yes

No

6. How confident are you in your response to the question above?

(i.e., if you answered NO, how confident are you that Michael does not have a mental health problem; if you answered YES, how confident are you that Michael has a mental health problem)?

1 Not at all Confident	2 A little bit Confident	3 Moderately Confident	4 Quite Confident	5 Extremely Confident
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Appendix C (Continued)

7. If you were responsible for Michael, would you seek help for him?

Yes

No

8. How likely are you to seek help for Michael from each of the following sources?

(Be sure to circle an answer for each source; if you will not seek help from a particular source, please circle option 1-not at all likely).

	1 Not at all Likely	2 A little bit Likely	3 Moderately Likely	4 Quite Likely	5 Extremely Likely
1.) Pediatrician/Family doctor	1	2	3	4	5
2.) Psychologist/Other mental health professional	1	2	3	4	5
3.) Religious leader (Pastor, Spiritual leader, Imam, Rabbi, etc)	1	2	3	4	5
4.) Teacher/School guidance counselor	1	2	3	4	5
5.) Family/Friends/Co-workers	1	2	3	4	5
6.) Self-help books/Internet websites	1	2	3	4	5
7.) None (I would not seek any help)	1	2	3	4	5

9. Which of the sources are you most likely to seek help from first (check one):

- Pediatrician/Family doctor
- Psychologist/Other mental health professional
- Religious leader (Pastor, Spiritual leader, Imam, Rabbi, etc)
- Teacher/School guidance counselor
- Family/Friends/Co-workers
- Self-help books/internet websites
- None (I would not seek any help)

Appendix D: Externalizing and Control Vignettes

Girl Externalizing Vignette

B.) Brittany is a 10-year-old girl who has become distracted easily and forgetful at home and school over the past 6 months. She often fails to finish her chores and school work and repeatedly makes careless mistakes on assignments. Brittany has difficulty paying attention for long periods of time and does not appear to listen when spoken to. She has a hard time waiting her turn, talks a lot, and often interrupts others when they are talking. Brittany usually has difficulty playing quietly. At school, she is out of her seat constantly and has become very fidgety. Brittany has always been an active child, but her recent behavior is now affecting her school work and ability to keep and make new friends.

Boy Control Vignette

C.) Joshua is a 10-year-old boy who has been receiving A and B grades in school over the past 6 months. He has several friends at home and school who he enjoys spending time with. Although he usually gets along with most children, Joshua sometimes gets into minor arguments with his friends when playing games or when he does not get his way. Occasionally, when Joshua gets angry or upset, he yells or slams his door; however, once he cools down he usually feels bad and apologizes for his behavior. Joshua participates in several activities after school such as soccer and reading club.

Appendix E: Demographics

INSTRUCTIONS: Please respond to the following questions about you and your family.

1. What is your gender?

Male Female

2. How old are you? _____

3. Are you:

- Married
 Living with partner
 In a relationship but living separately
 Single
 Separated
 Divorced
 Widowed
 Other (specify _____)

4. How many people, including yourself, live in your home? _____

5. How many children (biological, stepchildren, adopted and other children) do you have? _____

6. How many of these children are currently living in your home? _____

7. List the ages, gender, and race of all your children (example: 10-year-old white male):

8. Do you have monthly face-to-face contact with at least one of your children, ages 2 to 17?

- Yes
 No

9. Employment status:

Self

Employed as (list job) _____

Unemployed _____

Retired (list previous job) _____

Other _____

Your Spouse/Partner

Employed as (list job) _____

Unemployed _____

Retired (list previous job) _____

Other _____

Appendix E (Continued)

10. Highest level of education completed (please circle one response):

Self

Grade School Middle School High School College Graduate School
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 >20

Your Spouse/Partner

Grade School Middle School High School College Graduate School
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 >20

11. Home zip code: _____

12. Please select your total household income per year (This information is confidential)

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> < \$10,000 | <input type="checkbox"/> \$20,501-\$24,000 | <input type="checkbox"/> \$34,501-\$38,000 | <input type="checkbox"/> \$50,001-\$65,000 |
| <input type="checkbox"/> \$10,001-\$13,500 | <input type="checkbox"/> \$24,001-\$27,500 | <input type="checkbox"/> \$38,001-\$41,500 | <input type="checkbox"/> \$65,001-\$80,000 |
| <input type="checkbox"/> \$13,501-\$17,000 | <input type="checkbox"/> \$27,501-\$31,000 | <input type="checkbox"/> \$41,501-\$45,000 | <input type="checkbox"/> \$80,001-\$100,000 |
| <input type="checkbox"/> \$17,001-\$20,500 | <input type="checkbox"/> \$31,001-\$34,500 | <input type="checkbox"/> \$45,001-\$50,000 | <input type="checkbox"/> > \$100,000 |

13. What types of public assistance do you receive?

- Food Stamps
- Welfare
- Help with Housing
- Temporary Assistance for Needy Families
- Other, please describe: _____
- None

14. Do you have insurance coverage (Private, Medicaid, Medicare) for physical health needs?

For Self

- Yes
- No
- Don't know

For your Children

- Yes
- No
- Don't know

15. Do you have insurance coverage (Private, Medicaid, Medicare) for mental health needs?

For Self

- Yes
- No
- Don't know

For your Children

- Yes
- No
- Don't know

Appendix F: Utilization

INSTRUCTIONS: Please respond to the following questions about you and your family.

A. QUESTIONS ABOUT YOU

1. Have you ever been referred to see a mental health professional (such as: a psychologist, psychiatrist, social worker, or counselor) for emotional or behavior problems, alcohol or drug use?

Yes No

2. Have you ever seen a mental health professional (such as: a psychologist, psychiatrist, social worker, or counselor) for emotional or behavior problems, alcohol or drug use?

Yes No

3. Overall, how satisfied are you with the mental health services you received from mental health professionals?

0 Have never used services	1 Not at all satisfied	2 A little bit satisfied	3 Moderately satisfied	4 Quite satisfied	5 Extremely satisfied
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4. Do you think you currently have a mental health problem (i.e. an emotional, behavioral, alcohol, or drug problem)?

Yes No

5. How likely are you to seek treatment for the problems you are currently experiencing from a mental health professional?

0 Not currently experiencing any problems	1 Not at all likely	2 A little bit likely	3 Moderately likely	4 Quite likely	5 Extremely likely
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B. QUESTIONS ABOUT YOUR CHILDREN

6. Have any of your children ever been referred to see a mental health professional (such as: a psychologist, psychiatrist, social worker, or counselor) for emotional or behavior problems, alcohol or drug use?

Yes No

Appendix F (Continued)

7. Have any of your children ever seen a mental health professional (such as: a psychologist, psychiatrist, social worker, or counselor) for emotional or behavior problems, alcohol or drug use?

Yes No

8. Overall, how satisfied are you with the mental health services your children have received from mental health professionals?

0 My children have never used services	1 Not at all satisfied	2 A little bit satisfied	3 Moderately satisfied	4 Quite satisfied	5 Extremely satisfied
--	------------------------------	--------------------------------	------------------------------	-------------------------	-----------------------------

9. Have any of your children ever received mental health care from any of the following sectors (please check all that apply)?

- Health sector (pediatrician, family doctor, emergency room, etc)
- Mental health sector (psychologist, psychiatrist, counselor, social worker, residential, etc)
- Education sector (guidance counselor, school psychologist, special class, etc)
- Religious sector (clergy, pastor, spiritual leader, traditional healer, etc)
- Child welfare (social services counseling, etc)
- Juvenile Justice System (detention center/jail, court counselor, etc)
- Other (please describe): _____
- My children have never used mental health services

10. Do you think any of your children currently have a mental health problem (i.e. an emotional, behavioral, alcohol, or drug problem)?

Yes No

11. How likely are you to seek treatment for the problems your child is currently experiencing from a mental health professional?

0 My child is not experiencing any problems	1 Not at all likely	2 A little bit likely	3 Moderately likely	4 Quite likely	5 Extremely likely
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Appendix F (Continued)

12. Please circle YES or NO, to indicate if you have had any personal or professional experience with any of the following disorders that are sometimes found in children and adults.

Attention Deficit/Hyperactivity Disorder (ADHD)	YES	NO
Anxiety Disorder	YES	NO
Depression	YES	NO
Oppositional Defiant Disorder	YES	NO
Alcohol/Drug Abuse	YES	NO

Appendix G: Multigroup Ethnic Identity Measure – Revised (MEIM-R)

People come from a lot of different cultures and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Mexican-American, White, African American, American Indian, and Asian-American. Every person is born into one or more ethnic groups, but people differ on how important their ethnicity is to them, how they feel about it, and how much their behavior is affected by it.

INSTRUCTIONS: Please write and circle your answers to the questions below about your ethnic group(s) and how you feel about it.

In terms of ethnic group(s), I consider myself to be _____

1. I have spent time trying to find out more about my ethnic group(s), such as its history, traditions, and customs.	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
2. I have a strong sense of belonging to my own ethnic group(s).	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
3. I understand pretty well what my ethnic group membership means to me.	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
4. I have often done things that will help me understand my ethnic background better.	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
5. I have often talked to other people in order to learn more about my ethnic group(s).	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
6. I feel a strong attachment towards my own ethnic group(s).	1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree

Appendix G (Continued)

7. What is your race (check all that apply)?

- American Indian or Alaskan Native
- Asian, Asian-American, or Oriental
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White, Caucasian, or European
- Other (specify _____)
- Unsure/Don't Know

8. What is your ethnicity (check one)?

- Hispanic or Latino
- Not Hispanic or Latino

9. What is your father's race (check all that apply)?

- American Indian or Alaskan Native
- Asian, Asian-American, or Oriental
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White, Caucasian, or European, not Hispanic
- Other (specify _____)
- Unsure/Don't Know

10. What is your father's ethnicity (check one)?

- Hispanic or Latino
- Not Hispanic or Latino

11. What is your mother's race (check all that apply)?

- American Indian or Alaskan Native
- Asian, Asian-American, or Oriental
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White, Caucasian, or European, not Hispanic
- Other (specify _____)
- Unsure/Don't Know

12. What is your mother's ethnicity (check one)?

- Hispanic or Latino
- Not Hispanic or Latino

Appendix H: Barriers to Utilization

INSTRUCTIONS: Below are some reasons parents consider when seeking professional mental health services for their children. Please circle a response for each question that best represents how **you** currently feel about seeking mental health services **for your children**.

	SD Strongly Disagree	D Dis- agree	A Agree	SA Strongly Agree
1. My health insurance would cover this type of treatment.	SD	D	A	SA
2. Help probably would not do any good.	SD	D	A	SA
3. I think the problem would not get better by itself.	SD	D	A	SA
4. Services would be too expensive.	SD	D	A	SA
5. I would not be concerned about what others might think.	SD	D	A	SA
6. It would take too much time or be inconvenient.	SD	D	A	SA
7. My child would want to solve the problem on his/her own.	SD	D	A	SA
8. There would not be a language problem.	SD	D	A	SA
9. I would be scared about my child being put into a hospital or taken away from me against my will.	SD	D	A	SA
10. My child would refuse to go.	SD	D	A	SA
11. I trust mental health professionals.	SD	D	A	SA
12. A family member/friend would object.	SD	D	A	SA
13. I think the staff would be unfriendly or disrespectful.	SD	D	A	SA
14. I would have transportation problems.	SD	D	A	SA
15. I am satisfied with available services.	SD	D	A	SA
16. My child went in the past but it did not help.	SD	D	A	SA
17. I would be unsure about where to go for help.	SD	D	A	SA
18. I would be able to get an appointment.	SD	D	A	SA

Appendix I: Beliefs About Causes – Revised (BAC-R)

INSTRUCTIONS: When a child has mental health problems, parents can have many different explanations for why the problems began. The lists below show some of these explanations. When the words “mental health problems” are used, it refers to any **emotional, behavioral, or alcohol/drug problems** that a child may have. Please circle “yes” if you agree or “no” if you disagree with the statements below.

Do you believe that a child’s mental health problems are due, at least in part, to:

A. PHYSICAL CAUSES:

- | | | |
|--|------------------------------|-----------------------------|
| 1. Genetics or heredity? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Alcohol, drugs, or other substances taken during pregnancy? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Something else (not alcohol/drugs) taken by the father or mother during pregnancy? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Other pregnancy or birth-related complications? (e.g., prematurity, no prenatal care) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. A serious physical illness, injury, or condition? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Alcohol, drugs, or other substances taken by the child? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Something (not alcohol/drugs) eaten by the child? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. A lack or imbalance of chemicals, proper vitamins, hormones, or other nutritional elements? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

B. PERSONALITY OR EMOTIONAL STRUGGLES:

- | | | |
|---|------------------------------|-----------------------------|
| 1. A child’s character or personality? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. A child’s lack of self-discipline, self-control, or difficulties with anger? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Emotional struggles or inner conflicts? (e.g., self-esteem issues) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. A child’s difficulties going through a certain age or developmental stage in life? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

C. GETTING ALONG WITH OTHERS:

- | | | |
|---|------------------------------|-----------------------------|
| 1. A child’s lack of respect for authority or bad attitude? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|------------------------------|-----------------------------|

Appendix I (Continued)

2. A child's problems starting or maintaining good relationships? Yes No

3. A child's problems with social skills? Yes No

D. TRAUMA:

1. Trauma suffered by the child? (e.g., physical abuse, sexual abuse, seeing a violent act) Yes No

2. Trauma suffered by the family? (e.g., war, poverty, hardship) Yes No

E. FAMILY OF PARENTING ISSUES:

1. Conflict within the child's family? (e.g., divorce) Yes No

2. The absence of, or being separated from, one or both parents? (e.g., due to divorce, foster care, incarceration, death) Yes No

3. Drug, alcohol, or mental health problem of a parent? Yes No

4. Something related to parenting skills? Yes No

5. Not having enough time with a parent or adult? Yes No

6. A child not following or disobeying the beliefs and teachings of the family or parents? Yes No

F. CHILD'S FRIENDS:

1. A child not having enough friends, being teased, or being bullied? Yes No

2. The negative influence or peer pressure of a child's friends or peers? Yes No

3. A child's involvement in gangs? Yes No

G. AMERICAN CULTURE:

1. The influence of popular American culture (e.g. through television or movies)? Yes No

2. The influence of American culture, which is different from his/her family's culture? Yes No

3. Difficulty adjusting to American culture? Yes No

Appendix I (Continued)

H. DISCRIMINATION OR PREJUDICE:

1. Racial or ethnic discrimination or prejudice? Yes No

I. ECONOMIC PROBLEMS:

1. Not having enough money for things like food, clothing, housing, etc.? Yes No
2. Not having the necessary books/school materials at home to help him/her succeed in school? Yes No
3. Not having enough money for extra things that the child wants? Yes No

J. SPIRITUAL, COSMIC, OR RELIGIOUS REASONS:

1. Bad luck or chance? Yes No
2. Spirit possession, the influence of spirits or ghosts, someone casting a spell, magic, or witchcraft? Yes No
3. Punishment for the deeds of the child, his/her family, or ancestors? Yes No
4. Not having enough faith, spirituality, or involvement in religion? Yes No
5. The will of God, gods, deities, or some other supernatural beings? Yes No
6. Fate? Yes No
7. Being born during a particular day, year, or cosmic sign? Yes No

K. IMBALANCE OR DISHARMONY WITH NATURE OR NATURAL ELEMENTS:

1. An arrangement of physical elements or objects (e.g., in the home) that is not in line with nature or natural forces? Yes No
2. A yin and yang imbalance? Yes No
3. Disruption of a child's energy or vitality flow? Yes No

Appendix I (Continued)

L. This list shows all the parent explanations given above, please rate how **strongly** you believe in each of these possible causes of mental health problems.

	1 Not at all	2 A little bit	3 Somewhat	4 Much	5 A great deal
A. Physical Causes	1	2	3	4	5
B. Personality or Emotional struggles	1	2	3	4	5
C. Getting along with others	1	2	3	4	5
D. Trauma	1	2	3	4	5
E. Family or Parenting Issues	1	2	3	4	5
F. Friends	1	2	3	4	5
G. American Culture	1	2	3	4	5
H. Discrimination or Prejudice	1	2	3	4	5
I. Economic problems	1	2	3	4	5
J. Spiritual or Religious reasons	1	2	3	4	5
K. Disharmony with Nature	1	2	3	4	5

M. Now please go back to all those answers circled “yes” on the form: “Which **ONE** of these do you believe is ***the most important cause*** of a child’s mental health problems?”

About the Author

Idia Binitie Thurston completed her first independent research project through the honors department and earned her Bachelor of Science degree in Psychology from Florida State University in 2003. Three years later, Idia received her Master of Arts in Clinical Psychology from the University of South Florida. While working on her Doctorate of Philosophy in Clinical Psychology at the University of South Florida, Idia was the recipient of the Tom Tighe Graduate Student Research Award, USF Counseling Center Faculty-Staff Scholarship, and Graduate Diversity and Access Fellowship. She has published three peer-reviewed articles and two book chapters, and participated in both oral and poster presentations at several national conferences. Idia was also involved with the Society of Pediatric Psychology, where she was an active member on two committees. In 2008, She completed an NIMH Predoctoral Fellowship in HIV biobehavioral research at Brown University. She also served as the principal investigator on a clinical services grant for the implementation of an HIV/AIDS therapeutic group for teenage girls. Most recently, Idia has been completing her clinical internship training at Children's Hospital Boston/Harvard Medical School.