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Child psychopathology, parental problem perception, and help-seeking behaviors

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Child Psychopathology, Parental Problem Perception, and Help-Seeking Behaviors

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctorate of Philosophy
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ABSTRACT

Service underutilization is a major problem facing children with emotional and behavioral problems. In addition, parents are often the ones most responsible for seeking help for their children. However, many children do not receive adequate help because parents do not perceive a problem or do not recognize that a child is in need. The present study examined parental thresholds for problem perception and subsequent help-seeking decisions based on children's behaviors presented in a vignette. It was hypothesized that the type of child behavior, child and parent gender, and other parental characteristics would be associated with different thresholds for problem perception and seeking professional help. Participants were 160 mothers and 63 fathers recruited via email using the snowball method and a university participant pool. It was found that mothers sought higher levels of services than fathers and that externalizing and comorbid internalizing and externalizing behaviors were rated as more serious and in need of higher levels of services than internalizing behaviors. In addition, exposure to child psychopathology, parenting stress, and tolerance for behavioral problems were associated with different thresholds for problem perception and help-seeking decisions. Treatment acceptability was also found to partially mediate between parental problem perception and seeking mental health services. In addition, parental characteristics were also found to contribute to differential help seeking decisions. These results are discussed in relation to how parents view their child's emotional and behavioral problems and what factors contribute

to their decision to seek formal and informal services. Implications for clinical practice, limitations, and future directions of this research are also discussed.

Introduction

Service underutilization is a major problem facing parents and children with emotional and behavioral problems. Economic disadvantage, poor school grades, parental psychopathology, and parental perceptions of problems have been found to be associated with unmet need (Flisher et al., 1997). In addition, there are racial, ethnic, and cultural differences related to whether or not adults and children utilize and receive proper treatment (Chen & Mak, 2008; Leslie et al., 2003). Too often, those children most in need of services do not receive proper treatment. Parents and caretakers need to be aware of their children's problems and seek appropriate services so that children's emotional and behavioral needs do not go unmet.

Parents are the ones most responsible for seeking help for their children's emotional and behavioral problems. Some researchers have called them the "gatekeepers" to professional services for children (Bussing, Koro-Ljungberg, Gary, Mason, & Garvan, 2005). Therefore, they are responsible for whether a child makes it into treatment or not. In addition, teachers, school personnel, and other professionals also play a major role in recognizing children's problems and referring them for treatment (Hartung & Widiger, 1998; Poduska, 2000; Slade, 2004; Zwaanswijk, Van der Ende, Verhaak, Bensing, & Verhulst, 2007). These professionals can provide important information to parents that may ultimately influence their recognition of their child's problem. However, many children do not receive adequate help because parents or other adults do not perceive a problem or recognize that a child is in need (Slade, 2004). The accuracy with which parents identify their child as needing services and the factors that

may influence parental perception of children's problems are extremely important to study (Poduska, 2000). Therefore, the present study evaluated factors associated with parents' ability to perceive problems in children and their subsequent decisions about seeking help.

Models of Help-Seeking

Several researchers have discussed models of parents' and professionals' help-seeking decisions. Eiraldi and colleagues (2006) reviewed several models of help-seeking behavior in their formulation of an appropriate model for minority children with ADHD. Most models included these four help-seeking stages: *problem recognition*, *decision to seek help*, *service selection*, and *service utilization patterns*. Throughout the development of various help-seeking models, researchers have assessed how different individual and environmental variables can influence this process. These variables included social networks, attitudes toward mental health, and accessibility to treatments. In addition, the role of culture was underscored as influential to the help-seeking process at every stage (Cauce et al., 2002; Eiraldi et al., 2006). For example, parents in different cultures may have different thresholds for recognizing a behavior as a problem, different attitudes toward treatment, and different concerns about treatment providers, including perceived discrimination. Also, although some factors may be related to problem recognition, they may not necessarily be related to deciding to seek help (Verhulst & Van der Ende, 1997). Therefore, it is important to identify barriers and other variables related to both parents' perceptions and their decisions to seek help.

Other researchers have studied pathways of parental help-seeking for their child through consultation with a general practitioner (GP) or pediatrician (Sayal, 2006;

Zwaanswijk, Verhaak, Bensing, van der Ende, & Verhulst, 2003; Zwaanswijk, Verhaak, van der Ende, Bensing, & Verhulst, 2006; Zwaanswijk et al., 2007). When parents perceive a problem in their child, they tend to consult their GP. Therefore after parental problem perception, it is up to the GP to correctly identify whether or not the child has mental health problems and provide management and possible referrals. Implications of this pathway are that the GP has to be knowledgeable about possible mental health problems and the accessibility to other treatments.

Yet, as Sayal (2006) mentioned, some parents' help-seeking behaviors do not take into account primary care and therefore they bypass to more specialized care. In addition, these models may represent an oversimplification of the multiple routes that parents take in obtaining specialized services for their child. For instance, parents may not necessarily move uniformly through the proposed stages given that teachers and social service providers may aid in the process or parents may self-refer to professional help. In addition, in families with adolescents, both parental and adolescent factors, including adolescent attitudes toward treatment and family history of service use, influenced the parent-mediated help-seeking pathways (Logan & King, 2001; Zwaanswijk et al., 2007). Also, help-seeking behaviors may differ depending on whether a family lives in urban or rural areas, such that a greater reliance on medical and school services has been shown in rural areas whereas those in urban areas tend to use specialized and allied health services (Lyneham & Rapee, 2007). Therefore, many factors can hinder or facilitate the help-seeking pathways to service utilization. Overall, however, parental perception of child problems continues to play a prominent role in initiating pathways toward help-seeking decisions.

As Douma and colleagues (2006) highlighted, there is an important distinction between parental perception and recognition of a child's problem. They found that when a parent perceived a problem, these problems were frequently present according to the Child Behavior Checklist (CBCL; Achenbach, 1991) or the Diagnostic Interview Schedule for Children: Version 4 (DISC-IV; Ferdinand & Van der Ende, 1998). Therefore, they concluded that parental perception of a problem is truly the first step toward help-seeking whether or not the problem is completely recognizable or present. Through deciding to seek help, a parent can obtain a more thorough diagnostic evaluation of impairment to see if there really is a diagnosable problem. Therefore future research needs to further elucidate the roles of parental perceptions in the pathway to help-seeking decisions for children.

The Threshold Model

As already mentioned, help-seeking decisions begin with parental problem perception. So, what influences whether or not a parent perceives that a child's problem is serious and decides to seek help? Important to the study of child psychopathology is not only actual child behavior but the lens in which society, including parents and teachers, views the behavior. According to Weisz and colleagues (1988), "one effect of culture is to set adult thresholds for distress over child problems, thus influencing whether such problems are considered serious and influencing which actions will be taken in response" (p. 601). Therefore, individuals in different cultures tend to differ in their threshold for child problems. For instance, in this original study that portrayed child behavior in a vignette, Weisz et al. (1988) found that parents in Thailand, in comparison

to parents in America, rated child problems as less serious, less worrisome, and more likely to improve.

As mentioned, cultural variables play a role in adults' thresholds for child emotional and behavioral problems (Lambert, Weisz, Knight, Desrosiers, Overly, & Thesiger, 1992; Ramirez & Shapiro, 2005; Shah, Draycott, Wolpert, Christie, & Stein, 2004; Weisz et al., 1988). In addition, exposure to child psychopathology also may be associated with different thresholds. It may be that adults exposed to high levels of child psychopathology may be sensitized to certain problems and thus display a lower threshold for problems. Americans tend to be more sensitized to child psychopathology compared to other cultures and that may be one reason behind a lower tolerance for distress (Weisz et al., 1988). Weisz et al. (1988) also found that the degree of distress faced by the parent, teacher, or mental health professional determined whether or not a help-seeking initiative is taken.

Based on the threshold model, certain types of behavior as well as a child's gender may play a role in different thresholds. For instance, externalizing problems, such as aggression and hyperactivity tend to be more troubling to parents and teachers and therefore these adults may be more likely to recognize these problems and refer children more quickly for treatment. Also, because boys tend to have externalizing problems more often than girls, parents may have lower thresholds and refer boys more quickly (Hartung & Widiger, 1998; Keenan & Shaw, 1997). Likewise, cultural and social values determine levels of acceptability of child behaviors. Parental reports of behavioral problems differed across cultures, such that Thai adolescents and Embu children in Kenya were more likely to show internalizing problems, such as shyness and fearfulness,

compared to American children (Weisz, Sigman, Weiss, & Mosk, 1993; Weisz, Suwanlert, Chaiyasit, Weiss, Achenbach, & Eastman, 1993). Therefore, cultural values may interact with expected norms and appear to influence thresholds (Weisz et al., 1988).

Most studies evaluating the threshold model have used experimental methodologies. For instance, Weisz et al. (1988) and Lambert et al. (1992) used parallel vignettes of a male and female child showing either externalizing or internalizing behaviors. In these studies, American parents, teachers, and psychologists were compared to those in Thailand and Jamaica, respectively. Results showed that culture had a profound effect on perceived seriousness, worry, possible improvement, and typicality of these behaviors. More recently, Ramirez and Shapiro (2005) evaluated the threshold model in Hispanic and White teachers in the U.S. using standardized videotapes of a Hispanic and a White child. Although results showed that Hispanic teachers had higher ratings of Hyperactive-Impulsivity symptoms than did White teachers, this difference disappeared when acculturation was controlled for statistically. Therefore, acculturation may play more of a role than race/ethnicity when studying the threshold model in the U.S.

Although some studies have focused on parents' threshold for perceiving or recognizing that a child has a problem, other studies have examined multiple thresholds in the help-seeking pathways. For instance, in a sample of Latina mothers, Arcia and Fernandez (2003) found that mothers went through several thresholds including noting symptoms, becoming concerned, and reaching a "saturation point" of problem acknowledgment before deciding to seek help. Several factors were related to the speed of progression through these stages, including difficult life events and school reports of

negative behaviors. In addition, other studies identified the need to study two threshold levels, including labeling the problem as problematic and seeking professional intervention (Bussing, Zima, Gary, & Garvan, 2003; Shah et al., 2004). Several analogue studies have evaluated the former (e.g. Weisz et al., 1988; Weisz et al., 1993) but more attention needs to be paid to the latter. In addition, the inclusion of fathers in such studies is also important and lacking in current research (Shah et al., 2004).

The present study examined parental thresholds for problem perception and subsequent help-seeking behaviors of child behaviors presented in a vignette. In order to increase the ecological validity of the study, parents were asked to respond as if the child presented was their own child. Overall, studies have not examined factors that may contribute to different parental thresholds for children's problems with differing levels of severity nor have they compared mothers' and fathers' thresholds for problem perception and help-seeking. The aim of the present study was to evaluate how mothers' and fathers' thresholds for perceiving a hypothetical problem as serious and seeking help for their child may differ depending on certain factors. These factors are now discussed in further depth.

Factors Associated with Problem Perception and Help-Seeking Behaviors

Problem type and severity. Previous research has found differential rates of perceiving internalizing and externalizing child behaviors as problematic and different patterns of subsequent help-seeking. Externalizing behaviors are described as antisocial, aggressive, hyperactive, assaultive, and sociopathic whereas internalizing behaviors are described as withdrawn, anxious, depressed, psychosomatic, and fearful (Achenbach, McConaughy, & Howell, 1987).

Several researchers have discussed that externalizing behaviors are more distressing to parents and teachers and therefore are referred for treatment more often than are internalizing problems (Cornelius, Pringle, Jernigan, Kirisci, & Clark, 2001; Hartung & Widiger, 1998). These externalizing behaviors have also been described as more observable, objective, socially undesirable, and disturbing (Christensen, Margolin, & Sullaway, 1992). In addition, mothers and fathers tend to agree more often about externalizing behaviors in contrast to internalizing behaviors (Duhig, Renk, Epstein, & Phares, 2000). Therefore, parents may be more likely to recognize externalizing behaviors as a problem and seek treatment.

In contrast, internalizing behaviors are not as noticeable and appear to be less distressing to parents and teachers. In a study looking at parental perceptions of children's need, children's self-ratings of their own depressive and anxiety symptoms were not related to parental perceptions of these problems (Poduska, 2000). Therefore, parents may not recognize these problems and thus may not see that their child is in need. Likewise, their child may not be adequately expressing their feelings of sadness and anxiety. Poduska (2000) advised that parents and teachers listen closely to children, pay attention to their behaviors, and better incorporate their child's feelings into their perceptions of need. In addition, stigmatization may play a role in reduced help-seeking for children with depression and internalizing problems, particularly in regards to talking with friends and family about a child's problems (Perry, Pescosolido, Martin, McLeod, & Jensen, 2007).

In a review of the literature on children's pathway to care, Sayal (2006) found that symptom severity and presence of an externalizing problem predicted parental perception

of a problem. Other studies found that increasing severity, comorbidity, and persistence of problems increased parental problem recognition and help-seeking behaviors (Zwaanswijk et al., 2003; Zwaanswijk et al., 2007). However, they found conflicting evidence when it came to whether or not the presence of an externalizing behavior increased recognition and subsequent help-seeking.

In a population-based sample, Teagle (2002) examined both parental perception of a child's problems and parental perception of the impact of suffering caused to others by the child's problems. The highest reports of problems and impacts were for children with ADHD while the lowest was for children with anxiety problems. Parents' perceptions were correlated strongly with use of specialty mental health services. Therefore, Teagle (2002) advocated for universal screening and multiple informant reports of children's problems so that children's access to services would be related to their problem severity and not simply parents' perceptions.

Parents will often seek treatment for their children as a last resort and only after they have exhausted other options. Sometimes parents see help-seeking as a threat to their own abilities and self-esteem (Raviv, Raviv, Edelstein-Dolev, & Silberstein, 2003a). Therefore, how parents react to different types of behavior could be related to whether or not they find the behavior distressing enough to seek help. For example, Schneider, Attili, Vermigli, and Younger (1997) found that mothers would use moderate to high levels of power assertion in response to aggressive behavior and lower levels in response to social withdrawal. Therefore, given the amount of effort and struggle a parent is likely to put forth and if a reduction in externalizing behaviors is not met with success, parents may be more likely to seek help for these types of behaviors.

Comorbidity of child problems is also related to parental problem perception. In a study of referability of internalizing and externalizing problems in adolescents, Weiss, Jackson, and Susser (1997) found that the presence of one type of problem decreased the concern about the other type of problem, such that parents were likely to focus on the type of problem of most distress and concern for them. Another study found that while parents may not be able to identify the presence of any one specific disorder or problem correctly, comorbidity of child problems increases problem recognition and subsequent help-seeking (Logan & King, 2001). Therefore, studies should not only look at parental perception of internalizing and externalizing problems but also the comorbidity of both. Abidin and Robinson (2002) noted that analogue studies tend to construct cases that describe internalizing problems or externalizing problems but not a combination of problems. The present study will further examine the relationship with comorbid problems and problem perception. In addition, because severity of a behavior is linked with increased problem perception, the present study will include differing levels of severity of internalizing, externalizing, and comorbid internalizing and externalizing problems in its design. Differing levels of severity including more ambiguous stimuli may elucidate the association between parental perceptions and factors related to help-seeking pathways (Curley, 2006; Hoffman & Levy-Shriff, 1992).

Lastly, mothers and fathers have been found to differ in their ratings of children's internalizing and externalizing problems (Duhig et al., 2000). Several explanations have been used to make sense out of this discrepancy, including observability of the behavior, situational specificity, amount of contact, and parental psychological symptoms (Achenbach, McConaughy, & Howell, 1987; Hankinson & Phares, 2008). Also, because

mothers have more contact and are more distressed by children's psychological symptoms, mothers tend to rate their children's behavior as more negative than do fathers (Chi & Hinshaw, 2002; Christensen et al., 1992). In addition, parents differ in their reporting of child internalizing and externalizing behaviors. Therefore, their perception of these problems as problematic and their choice of help-seeking decisions may also differ. The present study examined this research question further.

Child gender and age. Both prevalence studies and analogue studies have found an association with parental problem perception, help-seeking decisions, and child gender and age. Zwaanswijk et al. (2003) found that the effect of child gender on parental problem recognition and help-seeking was dependent on the age of the child. In childhood, more help is sought for boys whereas in adolescence more help is sought for girls. Perhaps, these findings were related to externalizing problems, which tend to be more prevalent in younger versus older boys in contrast to internalizing problems, which are more prevalent in older versus younger girls (Verhulst & Van der Ende, 1997). However, Verhulst and Van der Ende (1997) found that child age was related to parental perceived service need but not to actual utilization of services.

Other prevalence studies have looked at child gender and differential rates of perceived need and service use. Wu and colleagues (2001) found that girls with depression were more likely to receive professional help whereas boys with depression were more likely to receive anti-depressants. Therefore, child gender may influence the types of service and treatment that are given. Looking at externalizing problems and ADHD, Bussing et al. (2003) found that boys were five times more likely than girls to receive an evaluation, treatment, and an ADHD diagnosis. In addition, the odds of a

referral for a boy was twice that of a girl when using information obtained from preschool children's birth records (Delgado & Scott, 2006). Lastly, in an epidemiological sample of first graders, boys were perceived as needing educational and mental health services more than girls (Poduska, 2000). These results may have been related to the younger age of the children studied. However, this is an important issue to be aware of when studying adults' perceptions of children's need.

Many analogue studies have focused on teachers' referrals associated with child gender. For instance, elementary school teachers were more likely to refer boys with ADHD than girls regardless of symptoms type (Sciutto, Nolfi, & Bluhm, 2004). In addition, Green, Clopton, and Pope (1996) found that teachers believed that boys are more in need of referrals for mental health services than girls because boys tend to have externalizing problems that teachers regard as being more severe and more in need of a referral. Teachers were more optimistic that girls with internalizing problems would improve with maturation. However, Cline and Ertubey (1997) used a more realistic rating task with a more full context and description of child functioning and found no effects of child gender on teachers' evaluations of need.

Raviv et al. (2003a) studied the difference between mothers' willingness to seek help for their own child versus referring a friend's child. It was found that mothers of boys were more willing to refer their own child or another's child for psychological help more so than mothers of girls. This finding was consistent with actual behaviors in which boys get referred for psychological services more often than girls. An interesting explanation was that mothers take a greater responsibility for their daughters' problems and these problems may threaten mothers' own self-esteem (Penfold, 1985; Raviv et al.,

2003a). Overall, the issue of gender bias in referral of children needs to be further examined in parent analogue studies, particularly with fathers.

Parental distress and psychopathology. In several review and prevalence studies, parental distress and psychopathology were found to be related to problem recognition and help-seeking behaviors. It was found that the distress level that parents and other adults experience, parenting stress, and parental mental health problems most likely will determine whether or not child problems are recognized and whether child treatment will be considered (Lambert et al., 1992; Sayal, 2006; Zwaanswijk et al., 2003). Renk (2005) compared mothers who had contacted a psychology clinic versus mothers who were college students. It was found that higher parenting stress was related to higher rates of referrals to psychological services and mothers who had referred their child also had more negative perceptions of their children, lower levels of support, and lower levels of limit setting.

However, other researchers have found conflicting evidence. Poduska (2000) found parental depressive symptoms were not related to perceptions of their child's needs for services. In addition, Verhulst and Van der Ende (1997) found that parental psychopathology was associated with a greater likelihood of evaluating their children's problems as problematic but not with increased service use. Similarly, parental psychopathology and parental substance use have been found to act as a barrier to service use (Cornelius et al., 2000).

Parental stress anxiety has been shown to influence help-seeking differently for mothers and fathers. For instance, anxiety was negatively related to support seeking and perceived support showed a stronger relationship for mothers than fathers (Norberg,

Lindblad, & Boman, 2006). In addition, mothers have been found to be more distressed and anxious about their child's condition than fathers (Vrijmoet-Wiersema, van Klink, Kolk, Koopman, Ball, & Egeler, 2008). Pihlakoski and colleagues (2004) also found that mothers' stress was related to help needed but not obtained and fathers' nervousness was related to help obtained.

Using a clinical sample, Duhig and Phares (2003) found that mothers and fathers did not differ in their reported distress over their adolescents' internalizing and externalizing behaviors. In addition, they found a strong relationship between adolescents', mothers', and fathers' distress and the desire to change adolescents' externalizing behavior. This finding was also evident for mothers' and adolescents' distress and internalizing behavior. Similarly, Phares & Danforth (1994) found that parents were distressed over adolescents' internalizing behavior more so than were teachers. It is important to recognize the role of bidirectional influences in which child problems may influence parental symptoms at the same time that parental distress may influence the exacerbation of child problems (Connell & Goodman, 2002; Mash & Johnston, 1990). Therefore, there is a need for future research to further elucidate this association and caution must be taken not to imply causality in these associations. In addition, when it comes to older children and adolescents who are more likely to have insight and discuss how they are feeling, perhaps mutual distress between parents and children would lead to quicker problem recognition and help-seeking than when it is left up to the parents' perceptions alone.

Other studies have evaluated parents' exposure to child psychopathology and its association with problem perception. Verhulst and Van der Ende (1997) found that the

presence of family members who were treated for an emotional/behavioral problem made it more likely for parents to perceive a problem in their child. In addition, through their evaluation of the threshold model cross-culturally, Weisz et al. (1988) found that Americans' greater exposure to child psychology resulted in a lower threshold for perceiving a problem as serious or worrisome.

The present study attempted to further elucidate the association between parental distress, exposure to psychopathology, and a lower threshold for perceiving a child's problems and seeking services by comparing mothers and fathers and examining various degrees of severity in children's problems.

Parental self-efficacy and tolerance for misbehavior. Parental self-efficacy plays an important role in parental and child adjustment (Jones & Prinz, 2005). Parental self-efficacy is linked to parental competence and psychological functioning as well as child characteristics, such as emotional adjustment and school achievement. Jones and Prinz (2005) also suggested that parental self-efficacy may play an important role in prevention and intervention efforts. In a sample of mothers in a clinic and in the community, it was found that clinic mothers had lower self-efficacy on multiple parenting tasks, including their child's refusal to eat, their child's throwing a tantrum, and visiting friends or relatives with their child (Sanders & Woolley, 2005). Likewise, using the best predictive model of primary service use in a sample of caretakers, parental distress and self-efficacy accounted for the most variance above the influence of child health status and psychosocial variables (Janicke & Finney, 2003). Therefore, parental self-efficacy and the ability to handle children's problems appear to be associated with help-seeking behaviors.

In a study of barriers to seeking help, one of the most common barriers parents reported was that they felt that they should be strong enough to handle their preschooler's behavior problems on their own (Pavuluri, Luk, & McGee, 1996). Another study looking at the help-seeking process found that when identified parents wanted to solve their child's problems themselves, these beliefs served as a significant barrier to entering treatment (Douma et al., 2006). This perception is common amongst parents and it appears to result in reduced self-esteem when parents realize they cannot help their children on their own (Raviv et al., 2003a). However, this pattern is not as salient for parents with adopted children. Warren (1992) found that adoptive parents had a lower threshold for referral for psychiatric treatment. This finding may be related to parents seeing the adoptive child as at-risk for more problems and their difficulties as more disruptive than if they were biologically related.

The relation between self-efficacy and help-seeking may also be related to the severity of the behavior. In a study of mothers of preschoolers, perceived severity of ADHD behaviors presented in a vignette was negatively correlated with the mothers' self-efficacy (Maniadaki, Sonuga-Barke, Kakouros, & Karaba, 2005). However, these mothers of "normal" children may have had more negative emotions and lower self-efficacy toward the child behaviors due to a lack of exposure and experience with children with behavioral problems.

However, another study including both fathers and mothers focused on parent gender differences in their reliance on the self or seeking help from others (Shek, 2001). Although this study was done with Chinese parents, the results are similar in Western societies and adolescent samples as well (Schonert-Reichl & Muller, 1996; Vingerhoets

& Van Heck, 1990). Results showed that mothers had higher levels of external locus of coping or were more likely to seek help from others, whereas fathers were more likely to rely on themselves when facing stress in marital, familial, interpersonal, and occupational domains. Therefore, fathers may have higher self-efficacy when it comes to dealing with child problems. On the contrary, mothers may have lower self-efficacy when dealing with child problems and may be more likely to seek outside help. A recent study found that men were less likely to seek mental health services than women perhaps due to men's negative attitudes toward psychological openness (Mackenzie, Gekoski, & Knox, 2006). In addition, Norberg et al. (2006) found a stronger relationship between perceived support and support-seeking for mothers than fathers. Therefore, fathers may be less likely to be open toward others and may be more likely to rely on themselves for help than mothers. Few studies have evaluated the difference between maternal and paternal self-efficacy in dealing with child problems. The present study attempted to further evaluate these relationships.

Parental tolerance for misbehavior has also been found to be associated with parental perceptions of child problems as well as whether or not a child makes it into treatment (Brestan, Eyberg, Algina, Johnson, & Boggs, 2003). Some parents may perceive their children's behavior to be deviant or problematic even when the behavior may be developmentally normal or appropriate. Therefore, low parental tolerance may lead to a lower threshold of problem perception. In addition, children whose parents have low tolerance for misbehavior may be referred for treatment more quickly.

Treatment acceptability, treatment type, and previous experiences. Parents' acceptability of treatment as well as their previous treatment experiences may play a role

in their decision to seek help for the children. Having past negative experiences in treatment were found to be significant barriers for parents seeking professional help for their children with intellectual disabilities (Douma et al., 2006). In addition, having a positive attitude toward treatment was a significant determinant of parents' decision to seek treatment for their children with behavioral disorders (Gustafson, McNamara, & Jensen, 1994).

Likewise, the type of help, either formal or informal, was associated with parents' help-seeking decisions for their children. Consulting natural support systems, like family or friends, not only has lower costs but lower threat to parental self-esteem. Parents appear to prefer to seek natural supports versus professional help (Raviv et al., 2003a). However, results have differed when parents were seeking help for children with internalizing problems (Perry et al., 2007). Other studies have found that parents seek informal and community agencies, such as preschool staff and voluntary workers, more often than formal agencies such as, pediatricians and general practitioners (Pavuluri et al., 1996) and that parents prefer to seek help from school psychological services more so than from private psychologists (Raviv, Raviv, Propper, & Fink, 2003b). The latter finding is most likely due to lower costs, more accessibility, and less stigma. However, researchers have found that when parents perceive a problem as severe enough, then parents will seek professional help at a higher rate and are more willing to pay the costs (Ho & Chung, 1996).

Treatment acceptability has been shown to differ between men and women. In a community sample, Mackenzie, Knox, Gekoski, and Macaulay (2004) found that women had higher (i.e. more positive) scores on the Inventory of Attitudes Toward Seeking

Mental Health Services scale, including higher scores of psychological openness, help-seeking propensity, and indifference to stigma than did men. Related to the psychological openness issue, another study discussed how mental distress is related to utilization of services. Because women report higher levels of distress, they tend to utilize mental health services at a higher rate (Koopmans & Lamers, 2007). Similar research needs to be carried out with mothers and fathers to examine if they have differential attitudes toward seeking treatment for their children. Therefore, the present study examined mothers' and fathers' level of treatment acceptability and their decisions to seek treatment for their child.

The Present Study

Using a quasi-experimental design, we looked at child behavior problems at three points along a continuum (from less severe to moderate to most severe) and examined parents' views of severity, their decisions to seek help, and what kind of help they sought (e.g. consult with teachers, psychologist, general practitioner). Vignettes included internalizing, externalizing, and comorbid internalizing and externalizing behaviors. Through imagining their own child closest in age to 8 and imagining that child at age 8 with various behavior problems, the study was more ecologically valid than typical analogue studies that present hypothetical children. There was a need to look at parental problem perception and help-seeking behaviors beyond yes/no decisions and to include varying behaviors and severity. In addition, the present study further examined the threshold model as it related to both mothers and fathers, varying levels of severity, and both parental perceptions and help-seeking decisions. Previous studies had not explored help-seeking decisions but focused only on adults' perceptions of severity of a child's

behavior (Weisz et al., 1988). As Bussing et al. (2003) noted, there is a service gap between parental recognition and their attempt to seek services. Therefore, it was important to study multiple thresholds including identifying a problem as problematic and deciding to seek help. Also, fathers are often excluded from research on child psychopathology (Phares, Lopez, Fields, Kamboukos, & Duhig, 2005), especially related to parental help-seeking for children as shown in various studies mentioned above (e.g. Raviv et al., 2003a; Raviv et al., 2003b; Renk, 2005). Therefore, it was important to examine fathers' perceptions of child problems that can ultimately influence their decisions to seek help. The hypotheses for the present study are included below.

Hypotheses

1. It was hypothesized that externalizing problems and comorbid internalizing and externalizing problems would be associated with a lower threshold for problem perception and help-seeking than internalizing behaviors alone (i.e. parents would find the problem to be more serious and seek greater levels of help). This hypothesis was based on research showing that externalizing and comorbid behaviors were more distressing to parents and that parents tended to seek help for these problems more often than for internalizing problems (Cornelius et al., 1998; Sayal, 2006).

2. It was hypothesized that parents rating their sons were likely to have a lower threshold for problem perception and for seeking help than parents rating their daughters (i.e. parents would find the problem more serious and seek greater levels of help). This hypothesis was based on research showing that boys tended to be referred for treatment more often than girls (Verhulst & Van der Ende, 1997; Zwaanswijk et al., 2003).

3. It was hypothesized that mothers would have lower thresholds for problem perception and for seeking help than fathers (i.e. mothers would find the problem more serious and seek greater levels of help than fathers). This hypothesis was based on research showing that mothers tended to rate their children's behavior as more negative than did fathers and tended to seek out help more often (Mackenzie et al., 2004; Norberg et al., 2006; Shek, 2001).

4. It was hypothesized that parents' higher exposure to child psychopathology would be associated with a lower threshold for problem perception and seeking help than parents exposed to less child psychopathology (i.e. parents would find the problem to be more serious and seek greater levels of help). This hypothesis was based on the threshold model that suggested that higher exposure to child psychopathology was related to a lower threshold for problem perception (Weisz et al., 1988).

5. It was hypothesized that parents' higher levels of distress, lower levels of tolerance, and lower parental self-efficacy would be associated with a lower threshold for problem perception and seeking help (i.e. parents with these characteristics would find the problem to be more serious and seek greater levels of help). This hypothesis was based on research showing that more parental distress, lower tolerance levels, and lower self-efficacy were related to greater problem perception and help-seeking decisions (Brestan et al., 2003; Janicke & Finney, 2003; Renk, 2005).

6. (Exploratory) It was hypothesized that parents' treatment acceptability would mediate between problem perception and seeking treatment for their child. This hypothesis was based on research showing that attitudes toward treatment were related to whether or not one is open to seeking treatment (Mackenzie et al., 2004).

7. (Exploratory) It was hypothesized that parents with higher education status, higher SES, and non-minority status would be associated with a lower threshold for problem perception and seeking help (i.e. parents would find the problem more serious and seek greater levels of help). This hypothesis was based on research showing that parents who have these characteristics tended to have fewer barriers and more knowledge about services and child development (Verhulst & Van der Ende, 1997).

Method

Participants

Two hundred and thirty three participants (167 mothers and 66 fathers) were recruited via email using the snowball method and the University of South Florida's Participant Pool. A power analysis (with a power of .80, alpha set at .05, and expecting a medium effect size) showed that a minimum of 64 mothers and 64 fathers were needed to test for between subjects mean differences adequately (Cohen, 1992). Parent participants who were students in the Psychology department were given extra credit points towards one of their psychology courses for partaking in the study. Parents were invited into the study if they had at least one child who was between 4 and 18 years old. By having a broad range of child ages and therefore parental ages, results were more generalizable to a larger population. Participants included biological, adoptive, and step parents. A "parent" was defined as an individual who had at least monthly face-to-face contact with the child.

Although we did not specifically attempt to get parental dyads to participate, we kept track of mothers and fathers who were rating the same child by asking for the child's birthday and the child's initials. Due to the low number of parental dyads and the problem with interdependence amongst dyad participants, one member of each parental dyad was randomly dropped from analyses (7 mothers and 3 fathers). Thus, the final sample included 223 parents (160 mothers and 63 fathers) who were not involved with each other. Given that analyses included repeated measures analyses, it was assumed that a reduced sample size would still have enough power to detect significance. See Table 1

for participant demographics. Of the final sample of mothers, 149 were biological mothers (93.1%), 5 were biological mothers and step-mothers (3.1%), 1 was a biological mother and adoptive mother (.6%), and 5 were adoptive mothers only (3.1%). Of the final sample of fathers, 56 were biological fathers (88.9%), 2 were biological fathers and step-fathers (3.2%), 2 were step-fathers (3.2%), 2 were adoptive fathers (3.2%), and 1 was a biological father and guardian (1.6%).

Mothers ranged in age between 21 years old and 56 years old ($M=38.36$, $SD=7.34$). Regarding race and ethnicity, the sample of mothers was primarily Caucasian (84.8%), with some Black/African American (8.2%), Hispanic/Latino (4.4%), Asian (1.3%), Biracial (.6%), and Other (.6%) ethnicities represented. The majority of the sample of mothers was married (67.3%), while the remainder were divorced and not remarried (13.2%), divorced and remarried (4.4%), separated (1.3%), single with no partner (5.0%), single and living with a partner (6.9%), and single and not living with a partner (1.9%).

Fathers ranged in age between 27 years old and 56 years old ($M=41.00$, $SD=6.87$). Regarding race and ethnicity, the sample of fathers was primarily Caucasian (85.7%), with some Black/African American (4.8%), Hispanic/Latino (6.3%), and Asian (3.2%) ethnicities represented. The majority of the sample of fathers was married (84.1%), while the remainder were divorced and not remarried (3.2%), divorced and remarried (3.2%), separated (3.2%), single with no partner (1.6%), and single and living with a partner (4.8%).

Table 1. *Participant demographics. Standard deviations and percentages are in parentheses.*

	Mothers	Fathers
Mean Parent Age	38.36 (7.34)	41.00 (6.87)
Mean Parent SES	50.93 (9.27)	53.75 (9.50)
Parent Type		
Biological Only	149 (93.1%)	56 (88.9%)
Biological and Step-parent	5 (3.1%)	2 (3.2%)
Step-parent Only	0 (0.0%)	2 (3.2%)
Biological and Adoptive Parent	1 (0.6%)	0 (0.0%)
Adoptive Parent	5 (3.1%)	2 (3.2%)
Biological Parent and Guardian	0 (0.0%)	1 (1.6%)
Race/Ethnicity		
Caucasian	134 (84.8%)	54 (85.7%)
Black/African American	13 (8.2%)	3 (4.8%)
Hispanic/Latino	7 (4.4%)	4 (6.3%)
Asian	2 (1.3%)	2 (3.2%)
Biracial	1 (0.6%)	0 (0.0%)
Other	1 (0.6%)	0 (0.0%)
Marital Status		
Married	107 (67.3%)	53 (84.1%)
Divorced and Not Remarried	21 (13.2%)	2 (3.2%)
Divorced and Remarried	7 (4.4%)	2 (3.2%)
Separated	2 (1.3%)	2 (3.2%)
Single with No Partner	8 (5.0%)	1 (1.6%)
Single and Living with Partner	11 (6.9%)	3 (4.8%)
Single and Not Living with Partner	3 (1.9%)	0 (0.0%)

The majority of the sample of mothers was employed (71.9%), while the remainder of mothers were unemployed (10.0%), retired (.6%), solely a student (8.1%), or other (9.4%). Mean socioeconomic status (SES) was 50.93 ($SD=9.27$; Hollingshead, 1975). Thus, the sample of mothers showed relatively high SES. A total of 53.2% of the sample of mothers reported that either themselves or the child's other parent had received

mental health services in the present or past, while 46.8% said they had not. A total of 29.7% of the sample of mothers reported that at least one of their children had received mental health services, while 70.3% said they had not.

The majority of the sample of fathers was employed (90.5%), while the remainder of fathers were retired (1.6%), solely a student (3.2%), or other (4.8%). Mean socioeconomic status (SES) was 53.75 ($SD=9.50$; Hollingshead, 1975). Thus, the sample of fathers showed relatively high SES. A total of 44.4% of the sample of fathers reported that either themselves or the child's other parent had received mental health services in the present or past, while 55.6% said they had not. A total of 19.0% of the sample of fathers reported that at least one of their children had received mental health services, while 81.0% said they had not.

The mothers' mean number of children living in their homes was 3.04 ($SD=.97$). The mean percentage of mothers who worked professionally with children was 28.01% ($SD=39.56$). The mean number of weekly hours that mothers spent at work was 31.77 ($SD=19.82$). The mean number of hours mothers spent during a weekday with their children was 6.89 ($SD=4.25$) and the mean number of hours spent during a weekend day with their children was 12.34 ($SD=4.26$). Thus, the mothers' contact with their own children was relatively high. Of the mothers' child closest in age to 8 years old, 78 were sons (48.8%) and 82 were daughters (51.2%).

The fathers' mean number of children living in their homes was 3.14 ($SD=.95$). The mean percentage of fathers who worked professionally with children was 6.56% ($SD=21.15$). The mean number of weekly hours that fathers spent at work was 46.16 ($SD=15.90$). The mean number of hours fathers spent during a weekday with their

children was 4.67 ($SD=4.23$) and the mean number of hours spent during a weekend day with their children was 10.25 ($SD=4.53$). Thus, the fathers' contact with their own children was relatively high. Of the fathers' child closest in age to 8 years old, 36 were sons (57.1%) and 27 were daughters (42.9%).

Measures

Vignette Stimuli. Vignettes were developed using internalizing and externalizing behaviors from the Child Behavior Checklist for Ages 6-18 (CBCL; Achenbach & Rescorla, 2001). Three vignettes described internalizing behaviors (less severe, moderately severe, most severe), three described externalizing behaviors (less severe, moderately severe, most severe), and three described comorbid internalizing and externalizing behaviors (less severe, moderately severe, and most severe). For the less severe vignettes, CBCL behaviors that were prevalent in about 50% and higher of the non-referred 8-9 year old girls and boys were used. For the moderately severe vignettes, CBCL behaviors that were prevalent in 20%-50% of the non-referred 8-9 year old girls and boys were used. For the most severe vignettes, CBCL behaviors that had the largest discrepancies between referred and non-referred 8-9 year old girls and boys were used. The vignettes are included in Appendix A.

After reading each vignette, participants were asked several questions. Based on questions from Weisz et al. (1988) and using a 7-point Likert scale, questions included: a) If this was your child, how serious are his/her behaviors described in this vignette? b) If you were this child's parent, how worried would you be about his/her behavior? c) Do you think his/her behaviors would improve in a year or two? d) Compared to other 8 year olds, how unusual are the behaviors described in this vignette?

In addition, participants were asked to complete the following: If your 8 year old son/daughter were to show these behaviors, you would (check all that apply): a) do nothing, b) talk with your child's other parent, c) talk with your child, d) talk with your child's teacher, e) consult with your child's school guidance counselor or school psychologist, f) talk with friends and family members, g) talk with religious/spiritual leaders, h) talk with other people in the community, i) consult your pediatrician or general practitioner (M.D.), j) set up an appointment with a counselor or psychologist (M.A., M.S., M.S.W., Ph.D.), k) set up an appointment with a psychiatrist (M.D.), i) other?

Parental distress. Participants were asked to rate their parental distress using the Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995; Appendix B). The PSI-SF is a 36-item parent report measure of stress in the parent-child system. Four scales were assessed using this measure including Total Stress, Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC). For purposes of this study, the Total Stress score was used. Parents whose Total Stress score was above a raw score of 90 (or in the 90th percentile) were experiencing significant levels of stress. The PSI-SF showed strong psychometric properties. The internal consistency reliability ranged from .80-.91 and the test-retest reliability ranges from .68-.85 across the four scales. In the present sample, the internal consistency reliability for the total scale was .91.

Parental self-efficacy. Participants were asked to rate their sense of their own parental self-efficacy using the Parenting Sense of Competence (PSOC) scale (Johnston & Mash, 1989; Appendix C). The PSOC is a 17-item parent report measure used to assess parenting self-esteem. Two factors were assessed using this measure, including

Satisfaction, reflecting parenting frustration, anxiety, and motivation, and Efficacy, reflecting competence, problem-solving ability, and capability in the parenting role. Higher scores on the PSOC indicated greater self-esteem. The PSOC showed good psychometric properties. Internal consistency reliability for the total score was .79, for the Satisfaction factor, $\alpha=.75$, and for the Efficacy factor, $\alpha=.76$. In the present sample, the internal consistency reliability for the total scale was .81.

Parental tolerance. Participants were asked to rate their tolerance for children's misbehavior using the Annoying Behavior Inventory (ABI; Brestan et al., 2003; Appendix D). The ABI is a 36-item parent report measure of their tolerance for disruptive child behavior in general. Two scales were assessed using the ABI including the Total Annoyance Scale, in which higher scores indicate greater annoyance, and the Total Punish Scale, in which higher scores indicate a greater propensity to use punishment. For the purposes of this study, the Total Annoyance score was used. The ABI showed strong psychometric properties. Internal consistency reliabilities for the ABI Annoyance Scale and Punish Scale were both .93. In the present sample, the internal consistency reliability for the Annoyance scale was .95.

Treatment acceptability. Participants were asked to rate their attitudes about seeking mental health services using the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS; Mackenzie et al., 2004; Appendix E). The IASMSHS is a 24 item self-report measure based on Fisher and Turner's (1970) Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS). Three internally consistent factors were assessed using this scale, including Psychological Openness, Help-Seeking Propensity, and Indifference to Stigma. This scale showed good psychometric properties.

Internal consistency reliabilities ranged from .76-.87 for the total score and three factor scores. Test-retest reliabilities ranged from .64-.91 across the four scores. In the present sample, the internal consistency reliability for the total scale was .83. Participants were not asked about their attitudes towards seeking professional help for their children because it was found that child related attitudes were not related to future mental health service utilization or the quantity of mental health services used (Thurston & Phares, 2008).

Demographics. Participants were asked to fill out a basic demographic questionnaire including questions about the amount of time spent with their own child(ren), exposure to child psychopathology, past treatment experiences, professional involvement, and general amount of contact with children. See Appendix F.

Procedures

Pilot Studies. An initial pilot study was conducted in which ten clinical psychology graduate students and faculty with experience in child psychopathology rated each vignette. Vignettes were rated on the content and descriptions of the internalizing, externalizing, and comorbid problems to make sure the wording was appropriate. In addition, each type of vignette was rated for severity and rank ordered from less severe to most severe (within each type of vignette). Results showed that there was 100% agreement across levels of severity and whether or not the vignette showed internalizing, externalizing, or comorbid behaviors.

A second pilot study was conducted in which vignette wording was adjusted to describe the child behaviors as recent changes or as being more chronic throughout time. Eight clinical psychology graduate students and faculty rated the 9 vignettes describing

behaviors as recent and the 9 vignettes describing behaviors as chronic using the questions given to participants including, how serious are the behaviors, how worried would you be about the behaviors, would the behaviors improve, and how unusual are the behaviors. The vignettes describing behaviors as more recent had means closer to the midpoint and larger standard deviations across the four dependent variables, thus they were selected for use in the study. Therefore, when the participants read a scenario that implied a relatively recent onset of problems, it was thought that it would be easier to imagine the participants' child in that scenario.

A final pilot study with eight graduate students and faculty was conducted in which these final vignettes describing behaviors as more recent were piloted as described in the initial pilot study. Again, results showed that there was 100% agreement across levels of severity and whether or not the vignette showed internalizing, externalizing, and comorbid behaviors. The final vignettes were presented in Appendix A.

Present Study. The study was posted on-line through an on-line survey program called Survey Monkey. Once mothers and fathers were identified who met the criteria to participate (i.e. they had at least one child between the ages of 4 and 18 and had monthly face to face contact with the child), they were asked to participate in the study. By agreeing to continue with the study, consent was obtained. Parents were then asked to give the gender, initials (first, middle, and last), and birthday of their child closest in age to 8. This information was used to match parental dyads while still keeping the identity of the parents anonymous. Mothers and fathers were asked to imagine their child closest in age to 8 and imagine that child at age 8 displaying the behaviors in the vignettes. They were then asked to answer the questions accordingly. Using a within subjects design,

parents were presented all nine vignettes and answered the questions mentioned above. Vignettes were presented in a randomized order across participants.

After completing the vignettes and questions parents were asked to complete the PSI, the PSOC, the ABI, and the IASMSHS. In addition, they were asked to fill out a demographic form. Finally participants were debriefed and thanked for their participation. Participants were also asked to choose one of three charities in which a \$1 donation was made (up to \$50 per charity).

Results

Descriptive statistics for the vignettes are displayed in Tables 2-5. Recall that seriousness ratings ranged from 1 (Not at all serious) to 7 (Very Serious) so the means in Table 2 suggest that participants found the vignettes to be moderately to very serious. In Table 3, possible range of services is 10 (i.e. talk with you child's other parent, talk with your child, talk with your child's teacher, consult with your child's school guidance counselor/school psychologist, talk with friends or family members, talk with religious/spiritual leaders, talk with other people in the community, consult your pediatrician or general practitioner (M.D.), set up an appointment with a counselor or psychologist (M.A., M.S., M.S.W., Ph.D.), and set up an appointment with a psychiatrist (M.D.)). In Table 4, possible range of services is 5 (i.e. talk with your child's teacher, consult with your child's school guidance counselor/school psychologist, consult with your pediatrician or general practitioner, set up an appointment with a counselor or psychologist (M.A., M.S., M.S.W., Ph.D.), and set up an appointment with a psychiatrist (M.D.)).

In Table 5, possible range of services is 2 (i.e. set up an appointment with a counselor or psychologist (M.A., M.S., M.S.W., Ph.D.) and set up an appointment with a psychiatrist (M.D.)).

Table 2. *Descriptive statistics for perceived seriousness ratings for each vignette.*

Vignette	Mean	SD
Less Severe Internalizing	4.77	1.48
Less Severe Externalizing	5.39	1.32
Less Severe Comorbid	5.05	1.39
Moderate Severe Internalizing	5.99	1.09
Moderate Severe Externalizing	6.45	.75
Moderate Severe Comorbid	6.38	.82
Most Severe Internalizing	6.80	.53
Most Severe Externalizing	6.82	.52
Most Severe Comorbid	6.90	.39

Table 3. *Descriptive statistics for number of services selected for each vignette.*

Vignette	Mean	SD
Less Severe Internalizing	3.48	1.69
Less Severe Externalizing	3.70	1.87
Less Severe Comorbid	3.57	1.83
Moderate Severe Internalizing	4.64	1.94
Moderate Severe Externalizing	5.14	1.71
Moderate Severe Comorbid	5.19	1.76
Most Severe Internalizing	5.94	1.99
Most Severe Externalizing	5.87	1.92
Most Severe Comorbid	6.20	1.93

Table 4. *Descriptive statistics for number of professional services selected for each vignette.*

Vignette	Mean	SD
Less Severe Internalizing	1.13	1.69
Less Severe Externalizing	1.09	1.87
Less Severe Comorbid	1.09	1.83
Moderate Severe Internalizing	1.91	1.94
Moderate Severe Externalizing	2.46	1.71
Moderate Severe Comorbid	2.46	1.76
Most Severe Internalizing	3.03	1.99
Most Severe Externalizing	3.00	1.92
Most Severe Comorbid	3.27	1.93

Table 5. *Descriptive statistics for number of mental health services selected for each vignette.*

Vignette	Mean	SD
Less Severe Internalizing	.13	.37
Less Severe Externalizing	.19	.50
Less Severe Comorbid	.16	.43
Moderate Severe Internalizing	.40	.61
Moderate Severe Externalizing	.53	.67
Moderate Severe Comorbid	.52	.64
Most Severe Internalizing	.90	.70
Most Severe Externalizing	.91	.71
Most Severe Comorbid	1.07	.68

To test the first three hypotheses, a 3x3x2x2 repeated measures MANOVA was used with perceived seriousness and seeking any service, seeking professional services (including teacher, guidance counselor/school psychologist, pediatrician/general practitioner, counselor/psychologist, and psychiatrist), and seeking mental health services (including counselor/psychologist and psychiatrist) as the dependent variables. Factors included problem type (internalizing, externalizing, and comorbid internalizing and externalizing), problem severity (less severe, moderately severe, and most severe), parent gender, and child gender.

The first hypothesis stated that externalizing and comorbid internalizing and externalizing problems would be associated with a lower threshold for problem perception and seeking help than internalizing behaviors alone. Therefore, it was expected that there would be a significant difference ($p=.025$, Bonferroni corrected for two dependent variables) between internalizing and externalizing vignettes and internalizing and comorbid internalizing and externalizing vignettes but not between externalizing and comorbid internalizing and externalizing vignettes. Specifically, parents were expected to find the externalizing and comorbid problems to be more serious and seek greater levels of help (Table 6). The second hypothesis stated that parents rating their sons would be likely to have a lower threshold for problem perception and seeking help than parents rating their daughters. Therefore it was expected that there would be a significant difference ($p=.025$, Bonferroni corrected) between sons and daughters (child gender). Specifically, parents were expected to find the problem to be more serious and seek greater levels of help for sons in contrast to daughters. The third hypothesis stated that mothers would have lower thresholds for problem perception and

seeking help than fathers. Therefore it was expected that there would be a significant difference ($p=.025$, Bonferroni corrected) between mothers and fathers (parent gender). Specifically, mothers were expected to find the problems more serious and seek greater levels of help than fathers (Table 6).

Results showed that there were main effects for type of behavior ($F(8, 212)=10.36, p<.001$) and for parent gender ($F(4, 216)=2.87, p=.024$). Univariate results are displayed in Table 6. The first hypothesis was supported in which externalizing and comorbid internalizing and externalizing problems were associated with a lower threshold for problem perception and seeking help than internalizing behaviors alone. Parents found externalizing and comorbid problems to be more serious and seek greater levels of help than internalizing problems alone, thus the first hypothesis was supported (Table 6). However, results did not support a main effect for child gender ($F(4, 216)=.09, p=.984$). Therefore, the second hypothesis was not supported. Parents rating their sons did not have a lower threshold for problem perception and seeking professional help than parents rating their daughters. In addition, there was no significant child gender by parent gender interaction ($F(4, 216)=.36, p=.840$). The third hypothesis was partially supported in which mothers and fathers did differ on seeking levels of help but did not differ on perceived seriousness of behaviors. Mothers reported that they would seek greater levels of services in general, greater levels of professional services, and greater levels of mental health services for their child than fathers (Table 6).

Table 6. Mean differences for parent gender and types of behaviors on ratings of perceived seriousness and help-seeking decisions.

Variable	Levels	Seriousness	Services	Professional Services	Mental Health Services
Parent Gender	Mother - Father	0.00	0.63**	0.45**	0.15*
Types of Behavior	Internalizing- Externalizing	-0.38***	-0.23***	-0.17**	-0.74**
	Internalizing- Comorbid	-0.27***	-0.27***	-0.17**	-.10***

* $p < .025$ ** $p < .01$ *** $p < .001$

Although not specific to any hypotheses, additional analyses were conducted examining mean differences for parent gender, child gender, and types of behavior on participants' rating of worry about the behaviors, likelihood the behaviors would improve, and unusualness of behaviors. Results showed that there was a main effect for type of behavior ($F(6, 214)=10.83, p < .001$) in which parents found internalizing behaviors to be less worrisome, more likely to improve, and less unusual than externalizing or comorbid internalizing and externalizing behaviors. Univariate results are displayed in Table 7.

Table 7. Mean differences for types of behaviors on ratings of perceived worry, likelihood to improve, and unusualness.

Variable	Levels	Worry	Likely to Improve	Unusualness
Types of Behavior	Internalizing- Externalizing	-0.33***	0.20**	-0.20**
	Internalizing- Comorbid	-0.26***	0.26***	-0.15*

* $p < .05$ ** $p < .01$ *** $p < .001$

Descriptive statistics for several variables used in the following analyses are displayed in Table 8. The Parenting Stress Index (PSI) total mean of 68.39 represents relatively low levels of parenting stress. Parenting Sense of Competence (PSOC) total mean of 72.61 represents relatively high levels of parenting competence. Annoying Behavior Inventory (ABI) total mean of 72.03 represents relatively average levels of tolerance for annoying behavior. Inventory of Attitudes Toward Seeking Mental Health Services (IASMSHS) total mean of 69.39 represents relatively average attitudes toward seeking mental health treatment. Correlations amongst these variables and select dependent variables are displayed in Table 9.

Table 8. *Parents' descriptive statistics for Parenting Stress Index-Short Form (PSI), Parenting Sense of Competence Scale (PSOC), Annoying Behavior Inventory (ABI), Inventory of Attitudes Toward Seeking Mental Health Services' (IASMSHS) Psychological Openness, Help-Seeking Propensity, and Indifference to Stigma subscales, and Total scale.*

	Mean	SD	Minimum	Maximum
PSI Total	68.39	16.48	42.00	118.00
PSOC Total	72.61	9.57	42.00	96.00
ABI Total	72.03	16.15	0.00	108.00
IASMSHS				
-Psychological Openness	22.26	5.31	6.00	32.00
-Help-Seeking Propensity	24.32	4.67	9.00	32.00
-Indifference to Stigma	22.81	6.03	6.00	32.00
-Total Score	69.39	12.56	39.00	96.00

Table 9. Correlations among select independent variables (Parenting Stress Index-Short Form (PSI), Parenting Sense of Competence Scale (PSOC), Annoying Behavior Inventory (ABI), Inventory of Attitudes Toward Seeking Mental Health Services (IASMSHS)) and dependent variables (perceived seriousness, seeking services, professional services, and mental health services).

	1.	2.	3.	4.	5.	6.	7.	8.
1. Seriousness	1	.31**	.34**	.27**	-.25**	.19**	.16*	.11
2. Services			.87**	.55**	-.06	.10	.14*	.18*
3. Prof. Services				.72**	-.07	.14	.17*	.72**
4. MH Services					.04	-.02	.15*	.27**
5. PSI						-.68**	-.05	-.15*
6. PSOC							.02	.16*
7. ABI								.04
8. Attitudes								1

* $p < .05$ ** $p < .01$

The fourth hypothesis stated that parents' higher exposure to child psychopathology would be associated with a lower threshold for problem perception and seeking help than parents exposed to less child psychopathology. Specifically, parents exposed to higher levels would find the problem more serious and seek greater levels of help. Four regression analyses were conducted to see if exposure to child psychopathology predicted perceived seriousness, seeking services, professional services, and mental health services ($p = .0125$, Bonferroni corrected for four dependent variables). Results showed that participants' exposure to behavior problems significantly predicted participants' report of seeking mental health services for their child. Therefore, the fourth hypothesis was partially supported. However, exposure to behavioral problems

did not predict perceived seriousness, help-seeking in general, or seeking professional services (Table 10).

Table 10. *Regression analyses of parents' ratings of exposure to child behavior problems predicting perceived seriousness, seeking services, professional services, and mental health services.*

Dependent Variable	β	p
Perceived Seriousness	.00	.98
Overall Services	-.01	.84
Professional Services	.10	.14
Mental Health Services	.17	.01*

*p<.0125

The fifth hypothesis stated that higher levels of parental distress, lower levels of tolerance, and lower parental self-efficacy would be associated with a lower threshold for problem perception and seeking help. Specifically, parents with these characteristics were expected to find the problem to be more serious and seek greater levels of help. Four multiple regression analyses were conducted to see if significant beta weights would identify the unique variance of each variable to perceived seriousness ratings, seeking services, seeking professional services, and seeking mental health services. Bonferroni corrected p-values of .0125 were used to detect significance. Results are shown in Table 11. Results showed that multiple regression analyses were significant for perceived seriousness and seeking professional services. In contrast to the hypothesis, higher levels of parenting stress significantly predicted lower perceived seriousness. However, a lower tolerance for annoying behaviors predicted higher perceived seriousness as hypothesized. In addition, a lower tolerance for annoying behaviors significantly predicted seeking higher levels of professional services.

Table 11. *Multiple regression analyses of parents' ratings on the Parenting Stress Index (PSI), the Parenting Sense of Competence (PSOC), and the Annoying Behavior Inventory (ABI) predicting perceived seriousness, seeking services, professional services, and mental health services.*

Dependent Variable	F	β	p
Perceived Seriousness	6.96		<.001**
PSI		-.23	.01**
PSOC		.03	.75
ABI		.15	.02*
Overall Services	2.24		.08
PSI		.02	.82
PSOC		.12	.21
ABI		.14	.04
Professional Services	2.86		.04*
PSI		.00	.97
PSOC		.09	.31
ABI		.17	.01**
Mental Health Services	1.71		.17
PSI		.05	.58
PSOC		.01	.90
ABI		.15	.03

*p<.05, **p<.0125

Additional analyses were conducted to examine whether higher levels of parental stress, lower levels of tolerance, and lower parental self-efficacy would be associated with higher levels of worry, lower likelihood to improve, and higher levels of unusualness. Results showed that higher levels of parental stress predicted lower levels of worry regarding a child's emotional/behavioral problems. In addition, a lower tolerance for annoying behavior significantly predicted higher levels of worry, lower likelihood of improvement, and higher levels of unusualness. Results are displayed in Table 12.

Table 12. *Multiple regression analyses of parents' ratings on the Parenting Stress Index (PSI), the Parenting Sense of Competence (PSOC), and the Annoying Behavior Inventory (ABI) predicting perceived level of worry, likelihood to improve, and unusualness.*

Dependent Variable	F	β	p
Worry	7.98		<.001**
PSI		-.24	.01**
PSOC		.04	.61
ABI		.14	.03*
Likelihood to Improve	3.38		.02*
PSI		-.03	.75
PSOC		.13	.15
ABI		-.15	.02*
Unusualness	5.12		.002**
PSI		-.13	.16
PSOC		.04	.70
ABI		.20	.003**

* $p < .05$, ** $p < .0125$

Additional analyses were also conducted to examine whether mothers and fathers differed on self-efficacy and treatment acceptability. Results supported a main effect for parent gender ($F(5, 217)=3.49, p=.005$). Univariate results are displayed in Table 13. Mothers showed significantly greater treatment acceptability than fathers, however no differences were noted for self-efficacy.

Table 13. *Mean differences for parent gender on ratings on Parenting Sense of Competence (PSOC) total score and Inventory of Attitudes Toward Seeking Mental Health Services (IASMSHS) total score.*

Variable	Levels	Self-Efficacy	Treatment Acceptability
Parent Gender	Mother - Father	-2.00	6.16**

** $p < .01$

The sixth hypothesis stated that parents' treatment acceptability would mediate between problem perception and seeking mental health services. Mediation analyses were conducted to see if perceived seriousness still predicted seeking mental health

services after controlling for treatment acceptability. Based on Baron and Kenny's (1986) steps to establishing mediation, participants' perceived seriousness ratings significantly predicted ratings of treatment acceptability (using the Help-Seeking Propensity subscale of the IASMSHS; $\beta=.14$, $t(221)=2.03$, $p=.04$). In addition, treatment acceptability ratings significantly predicted higher levels of seeking mental health services for the vignettes ($\beta=.31$, $t(221)=4.84$, $p<.001$). Perceived seriousness ratings also significantly predicted higher levels of seeking mental health services for the vignettes ($\beta=.27$, $t(221)=4.14$, $p<.001$). Results showed that seriousness still significantly predicted higher levels of mental health services even after controlling for treatment acceptability ($\beta=.23$, $t(221)=3.67$, $p<.001$). The mediated effect of perceived seriousness on seeking mental health services exceeded the direct effect and approached significance (Sobel test statistic=1.85, $p=.06$; Sobel, 1982). However, because the effect of perceived seriousness on seeking mental health services did not approach zero after controlling for treatment acceptability, an approach towards partial mediation can be assumed.

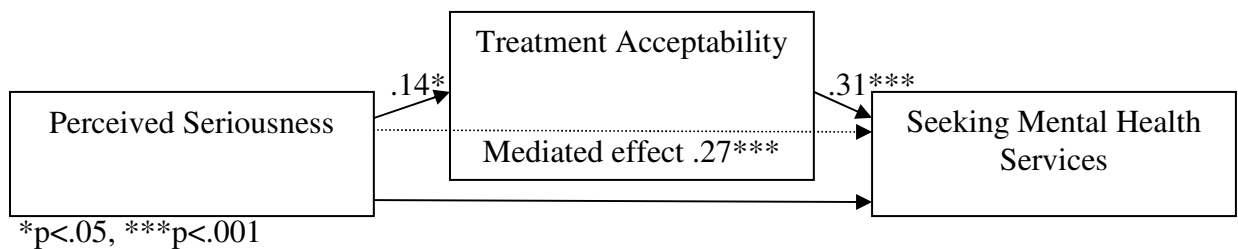


Figure 1. *Partial mediation model of interrelationships for perceived seriousness, treatment acceptability, and levels of seeking mental services among parents.*

The seventh hypothesis stated that parents with higher education status, higher SES, and non-minority status would have a lower threshold for problem perception and seeking help. Specifically, parents with these characteristics would find the problem to

be more serious and seek greater levels of help. Multiple regression analyses were conducted to see if significant beta weights would identify the unique variance of years of education and SES to severity ratings and seeking help. Bonferroni corrected p-values of .025 were used to detect significance. See Table 14 for results. Results showed that multiple regression analyses were significant for years of education and SES predicting seeking levels of services overall. However, in contrast to the hypothesis, those with higher SES were shown to seek a lower number of services overall.

Table 14. *Multiple regression analyses of parents' years of education and socioeconomic status (SES) predicting perceived seriousness, seeking services, professional services, and mental health services.*

Dependent Variable	F	β	p
Perceived Seriousness	1.96		.14
Years of Education		-.17	.06
SES		-.07	.45
Overall Services	3.88		.02*
Years of Education		.02	.87
SES		-.20	.03*
Professional Services	1.22		.30
Years of Education		-.01	.92
SES		-.10	.27
Mental Health Services	2.73		.07
Years of Education		-.20	.03
SES		.08	.38

* $p < .05$

In addition, two one-way ANOVAs were conducted to see if severity ratings and help seeking differ between races. Results showed that perceived seriousness ($F(1, 219)=2.03, p=.16$), seeking any service ($F(1, 219)=.04, p=.84$), seeking professional

services ($F(1, 219)=.16, p=.69$), and seeking mental health services ($F(1, 219)=.31, p=.58$) did not differ between minority and non-minority races.

Discussion

A brief summary of the significant findings of the present study are provided first and then the results are discussed in a more thorough manner. Main effects were found for type of behaviors and parent gender in which parents found internalizing behaviors to be less serious and sought lower levels of services than externalizing and comorbid internalizing and externalizing behaviors. Parents also found internalizing behaviors to be less worrisome, more likely to improve, and less unusual than externalizing or comorbid internalizing and externalizing behaviors. In addition, mothers were found to seek higher levels of services, including professional and mental health services than fathers. Mothers and fathers were also found to significantly differ on treatment acceptability in which mothers showed higher acceptability than fathers. Also, parents' ratings of treatment acceptability were shown to approach partial mediation between their ratings of seriousness and their decisions to seek mental health services.

Parents' higher exposure to child emotional and behavioral problems significantly predicted greater levels of seeking mental health services. However, parents' higher self-report of parenting stress predicted lower ratings of seriousness and worry related to child emotional and behavioral problems. In contrast, parents' self-report of lower tolerance for annoying behaviors predicted higher ratings of seriousness, worry, unusualness, and seeking professional services. In addition, lower tolerance predicted lower ratings of likelihood of behaviors improving. Finally, parents' socio-economic status was also shown to predict lower levels of seeking services in general.

Overall, this study adds to the knowledge related to mothers' and fathers' perceptions of the severity of children's emotional and behavioral problems, their subsequent formal and informal help-seeking decisions, and the thresholds which determine these steps in the help-seeking process. Unique to this study was the use of a quasi-experimental design rather than correlational and prevalence based designs. In addition, compared to previous analogue studies, this study focused on both mothers' and fathers' ratings and their help-seeking decisions rather than mothers or parents alone. Mothers' and fathers' differences were found related to their help-seeking decisions. In addition, mothers and fathers perceived differences in seriousness and subsequent help-seeking decisions based on behavior type. Unique to this study was the inclusion of internalizing, externalizing, and comorbid internalizing and externalizing behaviors in the vignette stimuli. This study also examined multiple parental variables such as parenting stress, parental self-efficacy, tolerance for behavior, and treatment acceptability and the roles these factors played in their perceptions of their children's problem severity and need for help, which previous research has neglected. Lastly, mediational analyses determined that treatment acceptability partially mediated between perceptions of seriousness and decisions to seek help.

Behavior Type Differences

The present study's hypothesis regarding behavior type differences was supported such that externalizing problems and comorbid internalizing and externalizing problems were associated with a lower threshold for problem perception and seeking help than internalizing behaviors alone. Parents rated vignettes showing internalizing problems as less serious and chose lower levels of services in general, professional services, and

mental health services than externalizing or comorbid internalizing and externalizing problems. In addition, post hoc analyses found that internalizing problems were perceived as less worrisome, more likely to improve, and less unusual than externalizing and comorbid internalizing and externalizing problems. Several studies have supported these findings in which externalizing problems were perceived as more serious because they were more overt, were associated with a higher burden on parents, and were more recognized by outside sources, including teachers (Abidin & Robinson, 2002; Arcia & Fernandez, 2003; Douma et al. 2006; Sayal, 2006; Teagle 2002). These results have also been upheld across different races and cultures. Chang and Sue (2003) reported that problems such as anxiety, depression, and social withdrawal did not receive the same concern from teachers, were perceived as less serious, and were referred for evaluation less often regardless of the race of the child. In addition, several studies looking at cross-cultural differences in parents showed that parents, regardless of culture, found internalizing problems to be perceived as less serious, would respond less assertively to these problems, and were less likely to seek treatment (Lambert et al., 1992; Schneider et al. 1997; Shah et al., 2004; Weisz et al., 1988).

However, besides being more noticeable and receiving more concern from parents and teachers, other factors could also play a role in why parents seek help less often for children with internalizing problems. For instance, Perry et al. (2007) suggested that lower levels of help-seeking, particularly with regard to talking with friends and family about child depressive symptoms, could be related to increased stigmatization. Depression in children has been perceived as more serious and as having a greater potential for dangerousness than depression in adults. Therefore, parents may be less

likely to seek help for their child from informal resources. In addition, many times parents will not seek help for children with internalizing problems until the child asks for help, which tends to happen more in adolescence than in childhood because adolescents have more insight and can communicate more about their emotional problems (Logan & King, 2001; Zwaanswijk et al., 2007). Therefore, increasing parent-child communication is important in order to diminish the gap between recognizing and seeking services for children's internalizing and externalizing problems.

In addition, Lyneham and Rapee (2007) found that patterns of help-seeking differed for children with internalizing problems depending on whether they lived in a rural or urban area. In urban areas, parents were more likely to use specialized clinics while in rural areas parents were more dependent on school and general medical services. However, with limited recognition and perceived seriousness by teachers and parents, these children could continue to fall through the cracks and not receive proper services regardless of where they live.

Child Gender and Parent Gender Differences

Results have been mixed regarding child gender and differing perceptions of seriousness and help seeking decisions. In the present study, ratings of seriousness, worry, likelihood to improve, unusualness, and help-seeking behaviors did not differ depending on whether parents were rating their son or their daughter. This finding was supported in previous research that showed no differences in help seeking processes between boys and girls (Cline & Ertubey, 1997; Zwaanswijk et al., 2007). In addition, in previous research, child gender has been confounded with type of problem and age such that some studies have found that the effect of child gender on parental problem

recognition and help-seeking was dependent on the age of the child (Zwaanswijk et al., 2003; Zwaanswijk et al., 2006). Also, externalizing problems tend to be more prevalent in younger versus older boys and internalizing problems are more prevalent in older versus younger girls (Green et al., 1996; Verhulst & Van der Ende, 1997). Therefore, child gender alone may not explain discrepancies. In addition, the experimental design of the present study in which presenting problems were the same regardless of whether the parent was rating their son or daughter could have ruled out any other stereotypical judgments or differing presentation of behaviors that could contribute to discrepant ratings in population based studies (Bussing et al., 2003; Delgado et al., 2006; Wu et al., 2001).

Parental gender differences are frequently found in the literature with regard to psychological symptoms and help-seeking behaviors. For instance, in pediatric populations, mothers report higher levels of stress and greater support seeking than fathers (Norberg et al., 2006; Vrijmoet-Wiersema et al, 2008). In the present study, differences were also found in which mothers reported they would seek higher levels of services in general, professional services, and mental health services than fathers. However, no differences were found between mothers and fathers on ratings of perceived seriousness, worry, likelihood to improve, or unusualness. Therefore, it appeared that parents tended to agree on degree of seriousness and worry about a child's behavior when given the same exact stimuli. In other studies where situational specificity and amount of contact played a role, ratings of behaviors have differed (Achenbach et al., 1987; Achenbach, 2006; Chi & Hinshaw, 2002; Duhig et al., 2000). In the present study, support and help-seeking decisions did differ between mothers and fathers and many

studies have discussed factors that could be related to this discrepancy. Some research has found that women and mothers are more likely to seek help from others more often than men and fathers when it came to their own coping or distress over children's problems (Koopmans & Lamers, 2007; Norberg et al, 2006; Shek, 2001). In support of findings by Mackenzie et al. (2004), mothers in the present study were also found to have higher mental health treatment acceptability, psychological openness, help-seeking propensity, and indifference to stigma than fathers.

In addition, parents' self-efficacy has been found to play a role in why mothers and fathers may differ in their help-seeking decisions. Johnston and Mash (1990) found that child behavior problems were related to parenting satisfaction for mothers while child behavior problems were related to parenting satisfaction and parental efficacy for fathers. In addition, fathers reported higher levels of satisfaction than mothers. Therefore, parents may differ in how they handle their child problems and may differ in whether they rely on outside support or not (Shek, 2001). Although the present study did not find a significant relationship between parental self-efficacy and perceived seriousness and help-seeking decisions, nor did it find that self-efficacy differed between mothers and fathers, these relationships should be explored in future research. In addition, fathers are often excluded from research on parental efficacy and the majority of studies have focused on mothers' perceived efficacy (Jones & Prinz, 2005; Sanders & Wooley, 2005). Because both mothers and fathers take active roles in making decisions for their families, fathers' perceptions and help-seeking decisions need to be explored in further depth. However, the present study did help to further elucidate the help-seeking model in which mothers reported seeking help at greater levels for their children than

fathers. Further information on what factors contribute significantly to this discrepancy need to be understood.

Parental Factors Related to Problem Perception and Help-Seeking

Beyond behavior type and gender, several factors were shown to be related to whether or not parents perceived children's problems as serious and decided to seek help. Parental exposure to behavioral problems has been linked to increased problem perception but not to help-seeking (Verhulst & Van der Ende, 1997; Weisz et al., 1987). As Sayal (2006) emphasized, it is important to examine these two distinct steps in the help-seeking process and to establish how factors may differentially influence them. In the present study, it was found that parents' self-report of exposure to child psychopathology was related to increased levels of seeking mental health services but not to perceived seriousness of the behaviors. However as Weisz et al. (1988) found in their original exploration of the threshold model, Americans tended to be more sensitized to child psychopathology compared to other cultures which could be related to a lower tolerance for distress. Other factors could also be related to the present study's findings, including mental health treatment acceptability (Mackenzie et al., 2004) and accessibility of services and resources (Lyneham & Rapee, 2007; Williams, Horvath, Wei, Van Dorn, & Jonston-Reid, 2007). The role of treatment acceptability will be discussed later in further depth. In addition, patterns of service use due to accessibility and location should be explored in future research.

Weisz et al. (1988) also found that the degree of distress faced by the parent, teacher, or mental health professional determined whether or not a help-seeking initiative was taken. Research on parental distress has been shown to be related to a lower

threshold for perceiving children's behavior as problematic (Verhulst & Van der Ende, 1997; Teagle, 2002) and higher motivation to change children's behaviors (Duhig & Phares, 2003). Parental distress over children's problems has also been associated with increased service use (Pihlakoski et al., 2004; Renk, 2005). In addition, the interaction between parental stress and self-efficacy to cope with problems and access services has been linked to use of primary health care services (Janicke & Finney, 2003). However, other researchers have found that parental distress and associated psychological symptoms has led to increased perception of child problems but may act as a barrier to actual service use for children (Cornelius et al., 2001). In the present study, it was found that higher levels of parenting stress were related to decreased perceived seriousness and decreased worry. An explanation could be that parents experiencing higher levels of stress may have seen the behaviors in the vignettes as less serious compared to their own child or their own symptoms. However, the present sample had much lower scores of total stress compared to other comparison community samples (Haskett, Ahern, Ward, & Allaire, 2006). Therefore, compared to parents experiencing more significant levels of stress, the parents' stress level in the present study may not have played a significant role in their perceptions of child problems and decisions to seek help.

Interestingly, parenting self-efficacy was not found to be related to perception of seriousness and help-seeking decisions. However, as research suggested, the interaction between self-efficacy and parental distress due to their children's problems and their own psychological functioning should continue to be explored in further depth (Janicke & Finney, 2003; Jones & Prinz, 2005). Lower tolerance for annoying behavior was found to be related to greater levels of perceived seriousness, worry, likelihood to improve, and

unusualness. In addition, lower tolerance for annoying behavior was also found to be related to seeking higher levels of professional help. These findings are commensurate with what Brestan et al. (2003) discussed in which, parents with low levels of tolerance may view children's behavior as more problematic and deviant when their child could be displaying typical behaviors. In addition, parents with low tolerance may be referring their children more often and their perceptions of behavior problems may be discrepant from other observers including teachers and mental health professionals. Consideration of clinical implications of these behaviors is important such that parents could be provided psychoeducation about typical versus clinical behaviors and ways they could cope and address these annoying behaviors in their children.

Other factors such as socioeconomic status (SES) and minority status and their association with child problem perception and help-seeking decisions have been explored in past research, such that those with lower SES and minority status were less likely to perceive child behavior as serious and seek services (Flisher et al., 1997; Sayal, 2006). However, other studies have not found such a relationship (Verhulst & Van der ende, 1997; Poduska, 2000). In contrast to the stated hypothesis in the present study, parents with higher SES selected lower levels of services overall. However, several factors could be related to these findings. First, the present sample was comprised of participants of relatively high SES and non-minority status. Therefore, range restriction and small minority sample size may not have been adequate to test for differences. In addition, those with higher SES may have the means to access more specific mental health services and may not be as dependent on social supports and community resources as those with lower SES (Poduska, 2000). Because education is a component in calculating SES, those

with higher education may have better coping mechanisms, greater likelihood to recognize a disorder, and better knowledge about appropriate services (Sayal, 2006).

Treatment Acceptability as a Mediator

Exploratory analyses revealed that treatment acceptability approached partial mediation between perception of seriousness and seeking mental health services. As discussed earlier, recognition or perception of a problem, decision to seek help, and actually seeking help are distinct steps in several models of help-seeking behaviors (Douma et al., 2006; Teagle, 2002; Zwaanswijk et al., 2006; Zwaanswijk et al., 2007).

Therefore, what may account for why parents perceive that their child has a problem but do not seek help could be treatment acceptability. In the present study and previous research, gender differences have been found in the propensity towards seeking mental health treatment (Mackenzie et al., 2004; Shek et al., 2001). In addition, stigmatization has been found to be related to seeking help for children (Perry et al., 2007) as well as wanting to address children's problems on one's own (Douma et al., 2006). Also, differences have been found in which parents are more likely to seek help for another parents' child or an adopted child than their own biological child (Raviv et al., 2003a; Warren, 1992). Therefore, stigmatization may also play a role in seeking help for one's biological child versus a non-biological child. Gustafson et al. (1994) used an analogue procedure similar to the one used in the present study and found that severity of child problems and attitudes toward treatment were positively associated with likelihood of seeking treatment. However as with the present study, the sample was primarily Caucasian and of higher SES. Therefore, future research examining the mediating role of

treatment acceptability in the linkage between problem perception and help-seeking decisions in minority and lower SES populations is warranted.

Limitations and Future Research

By using a quasi-experimental design in which parents read descriptions of child behavior and rated these descriptions based on their own child and parenting, the ecological validity of the results was enhanced. However, as with any analogue study, parents' actual behaviors in the real world were still unknown. Yet many researchers use vignettes to investigate perceptions of mental health problems because vignettes are comprised of concrete stimuli which are held constant across participants (Finch, 1987). Unique to this study was the ability to evaluate the threshold for parents to seek help for their child by including different types and a range of severity of behaviors along a continuum. In addition, by including both mothers and fathers, it was possible to see whether mothers and fathers differed in their thresholds for problem perception and help-seeking decisions. The present study also examined parents reported informal and formal service decisions in order to portray a more realistic account of parents' support and help-seeking behaviors.

There are, however, additional limitations. Vignettes were about an 8 year old child. Parents may have been more or less familiar with this age depending on where their child stands developmentally. The fact that all participants must have had a child between the ages of 4 and 18 controlled for parental experiences somewhat. For example, parents whose oldest child is an infant or toddler were not included because their children's behavior might be too divergent from the behavior of an 8 year old. On the other end of the developmental spectrum in adolescence, it was assumed that parents

who had experienced an active role in parenting over recent years (even with older adolescent children) would still be familiar enough with an 8 year old's behavior to provide meaningful ratings of problem perception and help-seeking decisions. Another concern, though is that the length of the vignettes may not have provided enough information to make a thorough evaluation of the child's behavior. However, enough detail was provided that participants should have been able to make decisions on how they perceived the behavior and what they would do if their child exhibited the behaviors in question.

Another limitation is that this study did not explore some of the factors related to parental problem perception and help-seeking decisions. Because the presence of mental health problems in parents has been shown to be associated with increased likelihood of parental perception of problems in children, this factor will be important to explore in future studies (Sayal, 2006). The present study only examined parental stress and not the presence of other psychological symptoms or disorders. In addition, the help-seeking process is not stagnant. Many times parents will try one avenue of help-seeking initially and then later explore other options if met with limited success or as problems worsen. In addition, parents may use an avenue of help-seeking to reach another and may not go through the steps in a uniform manner (Sayal, 2006; Zwaanswijk et al., 2007). Also, greater levels of help may not necessarily be the most efficient way to seek help. Therefore, parents may not have chosen multiple informal and formal services but may have chosen one they considered would be most effective (i.e. psychologist or psychiatrist). In addition, we did not explore actual behaviors and whether or not parents would actually follow through with treatment. Although this study did not explore the

multiple pathways in help-seeking decision making, this topic is warranted in future research to elucidate the model of parental help-seeking for child mental health problems.

Clinical Implications

This study offered several clinical implications. First, within a clinical setting, parents tend to seek services for their children at different times. Sometimes parents will bring a child in for services the moment they notice a problem. Other parents will wait longer to see if a problem persists or will seek help only when it gets very severe.

Several factors contribute to when and if help seeking occurs. Therefore, the present study served to disentangle when parents seek help and what kind of help they seek.

Also, mothers and fathers often differ in whether they perceive that their child has a problem, what the problem is, and what they should do about the problem. Through a quasi experimental design, this study identified that mothers and fathers differed in their decision making for their children. Lastly, parents' personal factors were related to perceiving problems and help seeking decisions. Clinicians and other health professionals need to be cognizant of what contributes to whether or not a child receives proper services for their emotional and behavioral problems and these professionals should advocate for lessening the service gap in children's mental health services.

References

- Abidin, R.R. (1995). *Parenting Stress Index (PSI) manual* (3rd ed.). Charlottesville, VA: Pediatric Psychology Press.
- Abidin, R.R. & Robinson, L.L. (2002). Stress, bias, or professionalism: What drives teachers' referral judgments of students with challenging behaviors? *Journal of Emotional and Behavioral Disorders, 10*, 204-212.
- Achenbach, T.M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profiles*. Burlington: University of Vermont, Department of Psychiatry.
- Achenbach, T.M. (2006). As others see us: Clinical and research implications of cross-informant correlations for psychopathology. *Current Directions in Psychological Science, 15*, 94-98.
- Achenbach, T.M., McConaughy, S.H., & Howell, C.T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213-222.
- Achenbach, T.M. & Rescorla, L.A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Arcia, E. & Fernandez, M.C. (2003). From awareness to acknowledgment: The development of concern among Latina mothers of children with disruptive behaviors. *Journal of Attention Disorders, 6*, 163-175.

- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychology research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Brestan, E.V., Eyberg, S.M., Algina, J., Johnson, S.B., & Boggs, S.R. (2003). How annoying is it? Defining parental tolerance for child misbehavior. *Child and Family Behavior Therapy, 25*, 1-15.
- Bussing, R., Koro-Ljungberg, M.E., Gary, F., Mason, D.M., & Garvan, C.W. (2005). Exploring help-seeking for ADHD symptoms: A mixed-methods approach. *Harvard Review of Psychiatry, 13*, 85-101.
- Bussing, R., Zima, B.T., Gary, F.A., & Garvan, C.W. (2003). Barriers to detection, help-seeking, and service use for children with ADHD symptoms. *Journal of Behavioral Health Sciences and Research, 30*, 176-189.
- Cauce, A.M., Domenech-Rodriguez, M., Paradise, M., Cochran, B.N., Shea, J.M., Srebnick, D., & Baydar, N. (2002). Cultural and contextual influences in mental health help-seeking: A focus on ethnic minority youth. *Journal of Consulting and Clinical Psychology, 70*, 44-55.
- Chang, D.F. & Sue, S. (2003). The effects of race and problem type on teachers' assessments of student behavior. *Journal of Consulting and Clinical Psychology, 71*, 235-242.
- Chen, S.X. & Mak, W.W.S (2008). Seeking professional help: Etiology beliefs about mental illness across cultures. *Journal of Counseling Psychology, 55*, 442-450.

- Chi, T.C. & Hinshaw, S.P. (2002). Mother-child relationships of children with ADHD: The role of maternal depressive symptoms and depression-related distortions. *Journal of Abnormal Child Psychology*, 30, 387-400.
- Christensen, A., Margolin, G., & Sullaway, M. (1992). Interparental agreement on child behavior problems. *Psychological Assessment*, 4, 4, 419-425.
- Cline, T. & Ertubey, C. (1997). The impact of gender on primary teachers' evaluations of children's difficulties in school. *British Journal of Educational Psychology*, 67, 447-456.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Connell, A. & Goodman, S. (2002). The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: A meta-analysis. *Psychological Bulletin*, 128, 746-773.
- Cornelius, J.R., Pringle, J., Jernigan, J., Kirisoi, L., & Clark, D.B. (2001). Correlates of mental health service utilization and unmet need among a sample of male adolescents. *Addictive Behaviors*, 26, 11-19.
- Curley, J. (2006). Adult perceptions of child behavior based on child gender: A methodological review. *Manuscript: Unpublished*.
- Delgado, C.E.F. & Scott, K.G. (2006). Comparison of referral rates for preschool children at risk for disabilities using information obtained from birth certificate records. *The Journal of Special Education*, 40, 28-35.

- Douma, J.C.H., Dekker, M.C., DeRuiter, K.P., Verhulst, F.C., & Koot, H.M. (2006). Help-seeking process of parents for psychopathology in youth with moderate to borderline intellectual disabilities. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*, 1232-1242.
- Duhig, A., Renk, K., Epstein, M., & Phares, V. (2000). Interparental agreement on internalizing, externalizing, and total behavior problems: A meta-analysis. *Clinical Psychology: Science and Practice, 7*, 435-453.
- Duhig, A. & Phares, V. (2003). Adolescents', mothers', and fathers', perspectives of emotional and behavioral problems: Distress, control, and motivation to change. *Child and Family Behavior Therapy, 25*, 39-52.
- Eiraldi, R.B., Mazzuca, L.B., Clarke, A.T., & Power, T.J. (2006). Service utilization among ethnic minority children with ADHD: A model of help-seeking behavior. *Administration and Policy in Mental Health and Mental Health Services Research, 33*, 607-622.
- Ferdinand, R.F. & Van der Ende, J. (1998). *DISC-IV: Diagnostic Interview Schedule for Children; information parent (Interview about child or adolescent)*. Rotterdam: Department of Child and Adolescent Psychiatry, Erasmus MC.
- Finch, J. (1987). Research note: The vignette technique in survey research. *Sociology, 21*, 105-114.
- Fischer, E.H. & Turner, J.L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology, 35*, 79-90.

- Flisher, A.J., Kramer, R.A., Grosser, R.C., Alegria, M., Bird, H.R., Bourdon, K.H., Goodman, S.H., Greenwald, S., Horwitz, S.M., Moore, R.E., Narrow, W.E., & Hoven, C.W. (1997). Correlates of unmet need for mental health services by children and adolescents. *Psychological Medicine, 27*, 1145-1154.
- Green, M.T., Clopton, J.R., & Pope, A.W. (1996). Understanding gender differences in referral of children to mental health services. *Journal of Emotional and Behavioral Disorders, 4*, 182-190.
- Gustafson, K.E., McNamara, J.R., & Jensen, J.A. (1994). Parents' informed consent decisions regarding psychotherapy for their children: Consideration of therapeutic risks and benefits. *Professional Psychology: Research and Practice, 25*, 16-22.
- Hankinson, J.C. & Phares, V. (2008). Parental ratings of children's behavior in relation to parental psychological symptoms and interparental conflict. Under Review.
- Hartung, C.M. & Widiger, T.A. (1998). Gender differences in the diagnosis of mental disorders: Conclusions and controversies of the DSM-IV. *Psychological Bulletin, 123*, 260-278.
- Haskett, M.E., Ahern, L.S., Ward, C.S., Allaire, J.C. (2006). Factor structure and validity of the Parenting Stress Index-Short Form. *Journal of Clinical Child and Adolescent Psychology, 35*, 302-312.
- Ho, T.P. & Chung, S.Y. (1996). Help-seeking behaviors among child psychiatric attenders in Hong-Kong. *Social Psychiatry and Psychiatric Epidemiology, 31*, 292-298.

- Hoffman, M.A. & Levy-Shriff, R. (1992). Children's vulnerability to stressful life events in mothers' eyes: Effects of gender and parental experiences. *Sex Roles, 27*, 39-45.
- Janicke, D.M. & Finney, J.W. (2003). Children's primary health care services: Social-cognitive factors related to utilization. *Journal of Pediatric Psychology, 28*, 547-558.
- Johnston, C. & Mash, E.J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology, 18*, 167-175.
- Jones, T.L. & Prinz, R.J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review, 25*, 341-363.
- Keenan, K. & Shaw, D. (1997). Developmental and social influences on young girls' early problem behavior. *Psychological Bulletin, 121*, 95-113.
- Koopmans, G.T. & Lamers, L.M. (2007). Gender and health care utilization: The role of mental distress and help-seeking propensity. *Social Science & Medicine, 64*, 1216-1230.
- Lambert, M.C., Weisz, J.R., Knight, F., Desrosiers, M., Overly, K., & Thesiger, C. (1992). Jamaican and American adult perspectives on child psychopathology: Further exploration of the threshold model. *Journal of Consulting and Clinical Psychology, 60*, 146-149.
- Leslie, L.K., Weckerly, J., Landsverk, J., Hough, R.L., Hurlburt, M.S., & Wood, P.A. (2003). Racial/ethnic differences in the use of psychotropic medication in high-risk children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*, 1433-1442.

- Logan, D.E. & King, C.A. (2001). Parental facilitation of adolescent mental health service utilization: A conceptual and empirical review. *Clinical Psychology: Review and Practice*, 8, 319-333.
- Lyneham, H.J. & Rapee, R.M. (2007). Childhood anxiety in rural and urban areas: Presentation, impact and help seeking. *Australian Journal of Psychology*, 59, 108-118.
- Mackenzie, C.S., Gekoski, W.L., & Knox, V.J. (2006). Age, gender, and the underutilization of mental health services: The influence of help-seeking attitudes. *Aging and Mental Health*, 10, 574-582.
- Mackenzie, C.S., Knox, V.J., Gekoski, W.L., & Macaulay, H.L. (2004). An adaptation and extension of the Attitudes Toward Seeking Professional Psychological Help Scale. *Journal of Applied Social Psychology*, 34, 2410-2435.
- Maniadaki, K., Sonuga-Barke, E., Kakouros, E., & Karaba, R. (2005). Maternal emotions and self-efficacy beliefs in relation to boys and girls with AD/HD. *Child Psychiatry and Human Development*, 35, 245-263.
- Mash, E.J., & Johnston, C. (1990). Determinants of parenting stress: Illustrations from families of hyperactive children and families of physically abused children. *Journal of Clinical Child Psychology*, 19, 313-328.
- Norberg, A.L., Lindblad, F., & Boman, K.K. (2006). Support-seeking, perceived support, and anxiety in mothers and fathers after children's cancer treatment. *Psycho-oncology*, 15, 335-343.

- Pavuluri, M.N., Luk, S., & McGee, R. (1996). Help-seeking for behavior problems by parents of preschool children: A community sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35, 215-222.
- Penfold, S.P. (1985). Parents' perceived responsibility for children's problems. *Canadian Journal of Psychiatry*, 30, 255-258.
- Perry, B.L., Pescosolido, B.A., Martin, J.K., McLeod, J.D., & Jensen, P.S. (2007). Comparison of public attributions, attitudes, and stigma in regard to depression among children and adults. *Psychiatric Services*, 58, 632-635.
- Phares, V. & Danforth, J.S. (1994). Adolescents', parents', and teachers' distress over adolescents' behavior. *Journal of Abnormal Child Psychology*, 22, 721-732.
- Phares, V., Lopez, E., Fields, S., Kamboukos, D., & Duhig, A.M. (2005). Are fathers involved in pediatric psychology research and treatment? *Journal of Pediatric Psychology*, 30, 631-643.
- Pihlakoski, L., Aromaa, M., Sourander, A., Rautava, P., Helenius, H., & Sillanpaa, M. (2004). Use of and need for professional help for emotional and behavioral problems among preadolescents: A prospective cohort study of 3- to 12-year-old children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43, 974-983.
- Poduska, J.M. (2000). Parents' perceptions of their first graders' need for mental health and educational services. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 584-591.

- Ramirez, R.D. & Shapiro, E.S. (2005). Effects of student ethnicity on judgments of ADHD symptoms among Hispanic and White teachers. *School Psychology Quarterly, 20*, 268-287.
- Raviv, A., Raviv, A., Edelstein-Dolev, Y., & Silberstein, O. (2003a). The gap between a mother seeking psychological help for her child and for a friend's child. *International Journal of Behavioral Development, 27*, 329-337.
- Raviv, A., Raviv, A., Propper, A., & Fink, A.S. (2003b). Mothers' attitudes toward seeking help for their children from school and private psychologists. *Professional Psychology: Research and Practice, 34*, 95-101.
- Renk, K. (2005). Reasons young children are referred for psychological services. *Child and Family Behavior Therapy, 27*, 61-71.
- Sanders, M.R. & Woolley, M.L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child: Care, Health, and Development, 31*, 65-73.
- Sayal, K. (2006). Annotation: Pathways to care for children with mental health problems. *Journal of Child Psychology and Psychiatry, 47*, 649-659.
- Schneider, B.H., Attili, G., Vermigli, P., & Younger, A. (1997). A comparison of middle class English-Canadian and Italian mothers' beliefs about children's peer-directed aggression and social withdrawal. *International Journal of Behavioral Development, 21*, 133-154.
- Schonert-Reichl, K.A. & Muller, J.R. (1996). Correlates of help-seeking in adolescence. *Journal of Youth and Adolescence, 25*, 705-731.

- Sciutto, M.J., Nolfi, C.J., & Bluhm, C. (2004). Effects of child gender and symptom type on referrals for ADHD by elementary school teachers. *Journal of Emotional and Behavioral Disorders, 12*, 247-253.
- Shah, R., Draycott, S., Wolpert, M., Christie, D., & Stein, S.M. (2004). A comparison of Pakistani and Caucasian mothers' perceptions of child and adolescent mental health problems. *Emotional and Behavioural Difficulties, 9*, 181-190.
- Shek, D.T.L. (2001). Reliance on self or seeking help from others: Gender differences in the locus of coping in Chinese working parents. *The Journal of Psychology, 126*, 671-678.
- Slade, E.P. (2004). Racial/ethnic disparities in parent perception of child need for mental health care following school disciplinary events. *Mental Health Services Research, 6*, 75-92.
- Sobel, M.E. (1982). Asymptotic intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290-312). San Francisco: Jossey-Bass.
- Teagle, S.E. (2002). Parental problem recognition and child mental health service use. *Mental Health Services Research, 4*, 257-266.
- Thurston, I.B. & Phares, V. (2008). Mental health utilization among African American and Caucasian mothers and fathers. *Journal of Consulting and Clinical Psychology, 76*, 1058-1067.
- Verhulst, F.C. & Van der Ende, J. (1997). Factors associated with child mental health service use in the community. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 901-909.

- Vingerhoets, A.J.J. & Van Heck, G.L. (1990). Gender, coping, and psychosomatic symptoms. *Psychological Medicine*, 20, 125-135.
- Warren, S.B. (1992). Lower threshold for referral for psychiatric treatment for adopted adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 512-517.
- Weiss, B., Jackson, E.W., & Susser, K. (1997). Effect of co-occurrence on the referability of internalizing and externalizing problem behavior in adolescents. *Journal of Clinical Child Psychology*, 26, 198-204.
- Weisz, J.R., Sigman, M., Weiss, B., & Mosk, J. (1993). Parent reports of behavioral and emotional problems among children in Kenya, Thailand, and the United States. *Child Development*, 64, 98-109.
- Weisz, J.R., Suwanlert, S., Chaiyasit, W., Weiss, B., Walter, B.R., & Anderson, W.W. (1988). Thai and American perspectives on over- and undercontrolled child behavior problems: Exploring the threshold model among parents, teachers, and psychologists. *Journal of Consulting and Clinical Psychology*, 56, 601-609.
- Weisz, J.R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T.M., & Eastman, K.L. (1993). Behavioral and emotional-problems among Thai and American adolescents: Parent reports for ages 12-16. *Journal of Abnormal Psychology*, 102, 395-403.
- Williams, J.H., Horvath, V.E., Wei, H., Van Dorn, R.A., & Jonston-Reid, M. (2007). Teachers' perspectives of children's mental health service needs in urban elementary schools. *Children and Schools*, 29, 95-107.

Wu, P., Hoven, C.W., Cohen, P., Liu, X., Moore, R.E., Tiet, Q., Okezie, N., Wicks, J., & Bird, M.D. (2001). Factors associated with use of mental health services for depression by children and adolescents. *Psychiatric Services, 52*, 189-195.

Zwaanswijk, M., Verhaak, P.F.M., Bensing, J.M., Van der Ende, J., & Verhulst, F.C. (2003). Help-seeking for emotional and behavioural problems in children and adolescents: A review of recent literature. *European Child and Adolescent Psychiatry, 12*, 153-161.

Zwaanswijk, M., Verhaak, P.F.M., Van der Ende, J., Bensing, J.M., & Verhulst, F.C. (2006). Change in children's emotional and behavioural problems over a one-year period: Associations with parental problem recognition and service use. *European Child and Adolescent Psychiatry, 15*, 127-131.

Zwaanswijk, M., Van der Ende, J., Verhaak, P.F.M., Bensing, J.M., & Verhulst, F.C. (2007). The different stages and actors involved in the process leading to the use of adolescent mental health services. *Clinical Child Psychology and Psychiatry, 12*, 567-582.

Appendices

Appendix A: Survey

Thank you for agreeing to participate in this study! In order to participate you must be a mother or a father of a child between the ages of 4 and 18 years old. Biological, adoptive, and step-parents are all welcome to participate. You will be asked to read some vignettes, answer questions about the vignettes, and answer questions about yourself. The study should take about 30 minutes to complete.

While reading the vignette below, imagine that your SON/DAUGHTER (closest in age to 8) is showing these behaviors at the age of 8.

<Insert Vignette>

	Not at all		Neutral			Very Much	
How serious is his/her behavior?	1	2	3	4	5	6	7
How worried would you be about his/her behavior?	1	2	3	4	5	6	7
Do you think his/her behavior would improve in a year or two?	1	2	3	4	5	6	7
Compared to other 8 year olds, how unusual is his/her behavior?	1	2	3	4	5	6	7

If your 8 year old son/daughter were to show the behaviors mentioned above, you would (check all that apply):

- Do nothing
- Talk with your child's other parent
- Talk with your child
- Talk with your child's teacher
- Consult with your child's school guidance counselor or school psychologist
- Talk with friends and family members
- Talk with religious/spiritual leaders
- Talk with other people in the community
- Consult your pediatrician or general practitioner (M.D.)
- Set up an appointment with a counselor or psychologist (M.A., M.S., M.S.W., Ph.D.)
- Set up an appointment with a psychiatrist (M.D.)
- Other (please specify)

Appendix A: (Continued)

Vignettes

Less Severe/Internalizing:

Imagine that your 8 year old son/daughter has been rather shy. He/She hasn't liked to play with other kids and would rather just be left alone. Recently, your child has been more self-conscious about what he/she says and does, especially in front of other peers. For instance, he/she doesn't want to wear certain clothes to school and doesn't want to try new things for fear of failure. He/she also tends to be perfectionistic and has been getting upset when he/she messes up.

Less Severe/Externalizing:

Imagine that your 8 year old son/daughter is arguing with you more. He/she has been stubborn and refusing to follow some of your rules at home. Recently, your child has been demanding more and more of your attention and gets upset when he/she doesn't get it. He/she would rather hang out with the older kids in your neighborhood and has been showing off when he/she is around them. Your child has been more impulsive and often doesn't think through his/her actions before doing them.

Less Severe/Internalizing and Externalizing:

Imagine that your 8 year old son/daughter has been rather sullen and stubborn. Your child has recently not wanted to play with other kids and is more self-conscious about how kids perceive him/her. When he/she has been playing with others, he/she breaks rules that you have set forth. He/she has been showing off around other kids and not thinking through his/her actions. However, he/she has been getting upset when he/she messes up and feeling bad about his/her actions.

Moderate Severe/Internalizing:

Imagine that your 8 year old son/daughter has been worrying a lot. Recently, he/she has become much more secretive with you and you notice he/she is nervous and tense about a lot of things, especially school. In addition, he/she is crying more easily. He/she is having nightmares and is fearful of things happening to you or your family. The other day he/she said that he/she felt unloved after you got upset with him/her.

Moderate Severe/Externalizing:

Imagine that your 8 year old son/daughter has had a hot temper. His/her mood has been changing frequently throughout the day, one minute he/she is really angry and the next he/she is fine. Also, your child has been teasing others, like his/her siblings and peers. Recently, he/she has been disobeying teachers and other adults in school and has been caught lying and cheating. Your child seems to lack guilt and hasn't really cared much about the consequences of his/her actions.

Appendix A: (Continued)

Moderate Severe/Internalizing and Externalizing:

Imagine that your 8 year old son/daughter has been quite moody. Recently, he/she has gotten in trouble for disobeying at school and has been caught for cheating and lying. He/she seems to be quite tense and is crying more easily. Your child has been teasing others often and seems to lack guilt for hurting others' feelings. At the same time, he/she has become more fearful and worrisome about bad things happening to his/her family.

Most Severe/Internalizing:

Imagine that your 8 year old son/daughter has been very unhappy and sad. He/she has been more nervous and anxious about going to school and participating in activities outside the home. He/she has reported feeling worthless and would prefer to be left alone. He/she is crying a lot more and has been very secretive about what is bothering him/her. Recently, he/she has said that he/she wishes he/she would die.

Most severe/Externalizing:

Imagine that your 8 year old son/daughter has been getting into fights. He/she has been breaking a lot of rules and has been disobedient both at home and school. Recently, when he/she gets upset, he/she gets very loud, screams, swears, and will often destroy his/her own and others' belongings. He/she has been mean to peers and siblings and has threatened to harm them. The other day he/she attacked another peer and showed little guilt for it.

Most severe/Internalizing and Externalizing:

Imagine that your 8 year old son/daughter has been having frequent mood changes. He/she has been sad and unhappy but also screams and has a hot temper. Your child has been disobeying at school, getting into fights, screaming, and swearing. Recently, he/she said that he/she feels worthless and talked about suicide. When upset he/she has been destroying his/her belongings and that of his/her siblings.

Appendix B: Sample Parenting Stress Index-Short Form Items (Copyrighted Material)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
I often have the feeling that I cannot handle things very well.	5	4	3	2	1
There are quite a few things that bother me about my life.	5	4	3	2	1
Sometimes I feel my child doesn't like me and doesn't want to be close to me.	5	4	3	2	1
My child gets upset easily over the smallest thing.	5	4	3	2	1
My child makes more demands on me than most children.	5	4	3	2	1

Appendix C: Being A Parent – Mother (Measure: Parenting Sense of Competence)

Name: _____ Date: _____

Listed below are a number of statements. Please respond to each item, indicating your agreement or disagreement with each statement in the following manner.

If you strongly agree, circle the letters SA

If you agree, circle the letter A

If you mildly agree, circle the letters MA

If you mildly disagree, circle the letter MD

If you disagree, circle the letter D

If you strongly disagree, circle the letter SD

1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired. SA A MA MD D SD
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his/her Present age. SA A MA MD D SD
3. I go to bed the same way I wake up in the morning – feeling I have not accomplished a whole lot. SA A MA MD D SD
4. I do not know what it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated. SA A MA MD D SD
5. My mother was better prepared to be a good mother than I am. SA A MA MD D SD
6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent. SA A MA MD D SD
7. Being a parent is manageable, and any problems are easily solved. SA A MA MD D SD
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one. SA A MA MD D SD
9. Sometimes I feel like I'm not getting anything done. SA A MA MD D SD

Appendix C: (Continued)

- | | | | | | | | |
|-----|---|----|---|----|----|---|----|
| 10. | I meet my own personal expectations for expertise in caring for my child. | SA | A | MA | MD | D | SD |
| 11. | If anyone can find the answer to what is troubling my child, I am the one. | SA | A | MA | MD | D | SD |
| 12. | My talents and interests are in other areas, not in being a parent. | SA | A | MA | MD | D | SD |
| 13. | Considering how long I've been a mother, I feel thoroughly familiar with this role. | SA | A | MA | MD | D | SD |
| 14. | If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent. | SA | A | MA | MD | D | SD |
| 15. | I honestly believe I have all the skills necessary to be a good mother to my child. | SA | A | MA | MD | D | SD |
| 16. | Being a parent makes me tense and anxious. | SA | A | MA | MD | D | SD |

Appendix C: (Continued)
Being A Parent – Father (Measure: Parenting Sense of Competence)

Name: _____ Date: _____

Listed below are a number of statements. Please respond to each item, indicating your agreement or disagreement with each statement in the following manner.

If you strongly agree, circle the letters SA

If you agree, circle the letter A

If you mildly agree, circle the letters MA

If you mildly disagree, circle the letter MD

If you disagree, circle the letter D

If you strongly disagree, circle the letter SD

- | | | | | | | | |
|----|--|----|---|----|----|---|----|
| 1. | The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired. | SA | A | MA | MD | D | SD |
| 2. | Even though being a parent could be rewarding, I am frustrated now while my child is at his/her present age. | SA | A | MA | MD | D | SD |
| 3. | I go to bed the same way I wake up in the morning – feeling I have not accomplished a whole lot. | SA | A | MA | MD | D | SD |
| 4. | I do not know what it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated. | SA | A | MA | MD | D | SD |
| 5. | My father was better prepared to be a good father than I am. | SA | A | MA | MD | D | SD |
| 6. | I would make a fine model for a new father to follow in order to learn what he would need to know in order to be a good parent. | SA | A | MA | MD | D | SD |
| 7. | Being a parent is manageable, and any problems are easily solved. | SA | A | MA | MD | D | SD |
| 8. | A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one. | SA | A | MA | MD | D | SD |

Appendix C: (Continued)

- | | | | | | | | |
|-----|---|----|---|----|----|---|----|
| 9. | Sometimes I feel like I'm not getting anything done. | SA | A | MA | MD | D | SD |
| 10. | I meet my own personal expectations for expertise in caring for my child. | SA | A | MA | MD | D | SD |
| 11. | If anyone can find the answer to what is troubling my child, I am the one. | SA | A | MA | MD | D | SD |
| 12. | My talents and interests are in other areas, not in being a parent. | SA | A | MA | MD | D | SD |
| 13. | Considering how long I've been a father, I feel thoroughly familiar with this role. | SA | A | MA | MD | D | SD |
| 14. | If being a father of a child were only more interesting, I would be motivated to do a better job as a parent. | SA | A | MA | MD | D | SD |
| 15. | I honestly believe I have all the skills necessary to be a good father to my child. | SA | A | MA | MD | D | SD |
| 16. | Being a parent makes me tense and anxious. | SA | A | MA | MD | D | SD |

Appendix D: Behavior Problem List (Measure: Annoying Behavior Inventory)

Please read this list of common childhood behavior problems. Give a number from 0 to 3 for *how annoying* the behavior would be for you if your child acted this way. A rating of **0** would mean that the behavior is **not annoying** for you. A rating of **3** would mean that the behavior is **very annoying** to you.

How Annoying Is It?

Not Annoying	Slightly Annoying	More Annoying	Very Annoying
0	1	2	3

_____	1. Always wanting their own way
_____	2. Arguing with friends
_____	3. Arguing with brothers or sisters
_____	4. Biting others
_____	5. Crying for no good reason
_____	6. Dawdling/Stalling/Taking too much time to do things
_____	7. Defiance (not wanting to do what they are told)
_____	8. Destructiveness (e.g., destroying property)
_____	9. Fighting with friends
_____	10. Fighting with brothers or sisters
_____	11. Fire-setting
_____	12. Hitting others
_____	13. Hurting pets or other animals
_____	14. Irritability/grouchiness
_____	15. Jumping on furniture
_____	16. Kicking others
_____	17. Lying
_____	18. Nagging
_____	19. Namecalling
_____	20. Noisiness/Being Loud
_____	21. Noncompliance (not doing what you ask)
_____	22. Not eating at meal time
_____	23. Pushing others

_____	24. Pouting
_____	25. Rough play
_____	26. Running away
_____	27. Slamming doors
_____	28. Stealing
_____	29. Talking back or arguing with parents/teachers
_____	30. Talking mean to others (e.g., "you're stupid")
_____	31. Teasing
_____	32. Temper tantrums
_____	33. Verbally threatening others (e.g., "I'm going to get you")
_____	34. Using bad language (cursing or swearing)
_____	35. Whining
_____	36. Yelling

Appendix E: Inventory of Attitudes Toward Seeking Mental Health Services

The term *professional* refers to individuals who have been trained to deal with mental health problems (e.g., psychologists, psychiatrists, social workers, and family physicians). The term *psychological problems* refers to reasons one might visit a professional. Similar terms include *mental health concerns*, *emotional problems*, *mental troubles*, and *personal difficulties*.

For each item, indicate whether you *disagree* (0), *somewhat disagree* (1), *are undecided* (2), *somewhat agree* (3), or *agree* (4):

	Disagree					Agree				
	0	1	2	3	4	0	1	2	3	4
1. There are certain problems which should not be discussed outside of one's immediate family.	0	1	2	3	4					
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems.	0	1	2	3	4					
3. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.	0	1	2	3	4					
4. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns.	0	1	2	3	4					
5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional.	0	1	2	3	4					
6. Having been mentally ill carries with it a burden of shame.	0	1	2	3	4					
7. It is probably best not to know <i>everything</i> about oneself.	0	1	2	3	4					
8. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy.	0	1	2	3	4					
9. People should work out their own problems; getting professional help should be a last resort.	0	1	2	3	4					
10. If I were to experience psychological problems, I could get professional help if I wanted to.	0	1	2	3	4					
11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems.	0	1	2	3	4					

Appendix E: (Continued)

12. Psychological problems, like many things, tend to work out by themselves.	0	1	2	3	4
13. It would be relatively easy for me to find the time to see a professional for psychological problems.	0	1	2	3	4
14. There are experiences in my life I would not discuss with anyone.	0	1	2	3	4
15. I would want to get professional help if I were worried or upset for a long period of time.	0	1	2	3	4
16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it.	0	1	2	3	4
17. Having been diagnosed with a mental disorder is a blot on a person's life.	0	1	2	3	4
18. There is something admirable in the attitude of people who are willing to cope with their conflicts and fears <i>without</i> resorting to professional help.	0	1	2	3	4
19. If I believed I were having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3	4
20. I would feel uneasy going to a professional because of what some people would think.	0	1	2	3	4
21. People with strong characters can get over psychological problems by themselves and would have little need for professional help.	0	1	2	3	4
22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.	0	1	2	3	4
23. Had I received treatment for psychological problems, I would not feel that it ought to be "covered up."	0	1	2	3	4
24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems.	0	1	2	3	4

Appendix F: Parental Demographic Form

Please complete the following:

1. This form is being completed by a:

Mother Stepmother Adoptive mother
 Father Stepfather Adoptive father
 Guardian Other

2. What is your age? ____

3. What is your race/ethnicity?

Caucasian Black/African American Hispanic
 Asian Other (please specify: _____)

4. What is your marital status?

Married Single, living with partner Single, no partner
 Separated Divorced and remarried Divorced and not remarried
 Widowed Other (please specify: _____)

5. How many children (biological, stepchildren, and other children) are presently living in your home? ____

6. List the ages and gender of the children who are presently living in your home

Child 1: age ____ gender ____
Child 2: age ____ gender ____
Child 3: age ____ gender ____
Child 4: age ____ gender ____
Child 5: age ____ gender ____

7. In all, how many children (biological, stepchildren, and others) do you have?

8. List the birth date of your child closest in age to 8 years old: _____

9. Input the initials of your child closest in age to 8 years old: _____

10. What is the gender of your child closest in age to 8 years old?

Male
 Female

Appendix F: (Continued)

11. What is your employment status?

- Employed
- Unemployed
- Retired
- Student
- Other

12. If you are employed, please state your occupation:

13. What is your spouse's employment status?

- Employed
- Unemployed
- Retired
- Student
- Other

14. If your spouse is employed, please state his/her occupation:

15. Enter your years of education (e.g. High School = 12 years, Four year college = 16 years, etc): _____

16. Enter your spouse's years of education (e.g. High School = 12 years, Four year college = 16 years, etc): _____

17. What percentage of your professional involvement is spent working with children (0-100%)? _____

18. On a scale of 1-10, where 1=Not at all and 10=A lot, how much experience have you had with children other than your own (either in a work or personal capacity)? _____

19. On a scale of 1-10, where 1=Not at all and 10=A lot, how much exposure have you had to children (including your own) with emotional or behavioral problems or other psychological, learning, or social problems? _____

20. What is the average number of hours per week you spend at work and/or school, including commuting time? _____

21. In an average week day, how much time do you spend with your child(ren) during waking hours? _____

Appendix F: (Continued)

22. In an average weekend day, how much time do you spend with your child(ren) during waking hours? _____

23. Has either of your child(ren)'s parents received mental health services (such as therapy, counseling, or medication) in order to deal with something that was psychologically distressing? _____ Yes _____ No

If Yes: Please note who received the services, what type of services were received (e.g., psychiatrist, pastoral counseling, etc.), and how long ago the services were received.

Evaluate your treatment experiences (i.e. were they positive or negative?)

24. Have any of your children received mental health services in order to deal with something that was psychologically distressing? _____ Yes _____ No

If Yes: Please note who received the services, what type of services were received, and how long ago the services were received.

Evaluate your treatment experiences (i.e. were they positive or negative?)

25. In lieu of payment or rewards, a donation of \$1 will be made to one of the below charities for your participation in this study.

Please choose which charity you wish a donation to be made to:

____ Judi's House (www.judishouse.org): Helps children and families who are grieving the death of a loved one.

____ Make a Wish Foundation (www.wish.org): Grants the wishes of children with life threatening illnesses.

____ World Vision (www.worldvision.org): Helps children, families, and communities worldwide suffering from poverty or injustice.

About the Author

Jessica Curley Hankinson received a Bachelor's Degree with High Distinction in Psychology from the University of Virginia in 2001. At the University of Virginia she was named a member of the Phi Beta Kappa Honor Society. She entered the Clinical Psychology Ph.D. program at the University of South Florida in 2003. She received her Master's Degree in 2006 and her Doctoral Degree in 2009. While in her Ph.D. program, Jessica co-authored several publications and presented several poster and paper presentations at regional, national, and international conferences. Jessica completed her pre-doctoral internship at the Kennedy Krieger Institute and the Johns Hopkins School of Medicine and received a post-doctoral fellowship at the same institution.