

Psychopathology and Treatment Seeking of Parents of
Children in Treatment for Psychiatric Problems

Andrew M. Youssef

Vanderbilt University

HONORS THESIS

Research Advisor: Judy Garber, Ph.D.

Graduate Student Mentor: Katy Korelitz

Parental Psychopathology and Treatment Seeking 2

Abstract

In a given year about one-quarter of American adults have a diagnosable psychiatric disorder, yet less than half of these individuals seek treatment. Therefore, it is important to examine this disparity in treatment seeking more closely, especially for parents with mental health problems who can both increase the risk of psychiatric disorders in their children and reduce the efficacy of their children's treatment. The current study examined the extent and type of psychopathology among parents bringing their children to a psychiatric clinic, and assessed their treatment utilization in relation to parent sex, age, employment status, insurance, and attitudes toward treatment. Results showed that 40% of these parents endorsed symptom levels on the Brief Symptom Inventory (BSI) that were at least one standard deviation above the normative mean. Higher BSI total scores were significantly correlated with being female, lower education, being disabled (i.e., unable to work), and having TennCare health insurance. Of the 229 parents with high BSI scores, 43.2% were not receiving treatment; these parents were significantly younger, had less positive attitudes about treatment seeking than those in treatment, were more likely to be employed than not employed, and tended not to have any form of health insurance. This study represents an important step in determining the barriers for treatment seeking among this population. Suggestions for overcoming barriers to treatment seeking with the goal of reducing mental health problems in parents are discussed.

The rate of mental illness in the United States is high, with nearly half the population experiencing a mental disorder in their lifetime (Kessler, Berglund, Demler, Jin, & Walters, 2005a; National Institute of Mental Health, 2010a). More specifically, the lifetime prevalence rate for adults is 46.4%; adolescents ages 13 to 18 have a lifetime prevalence rate of 46.3% (Kessler et al., 2005a; Merikangas et al., 2010; National Institute of Mental Health, 2010a, 2010b). The 12-month prevalence rate for diagnosable mental illness in adults is approximately 25%, with nearly 6% of the population having a severe mental illness (Kessler, Chiu, Demler, & Walters, 2005b; National Institute of Mental Health, 2010a). Despite these high prevalence rates, however, less than half of adults with diagnosable mental illness seek treatment (Wang et al., 2005; National Institute of Mental Health, 2010a).

The present study focused on a particularly important group of adults – parents of children who are receiving services for emotional and/or behavioral problems. Parents play a central role in their children’s physical and emotional development. In particular, parents’ own mental health has been shown to affect children’s psychopathology and the efficacy of their children’s response to intervention (Beardslee, Versage, & Gladstone, 1998; Garber et al., 2009; Swartz et al., 2005; Weissman et al., 2006). The purpose of the present study was to document the extent and type of psychopathology in parents and to identify factors associated with seeking and not seeking treatment among parents with psychiatric problems.

Psychopathology in Parents of Children in Treatment for Psychiatric Problems

The existing literature on the psychopathology and treatment of parents of children receiving services for psychiatric problems is quite limited (Ferro, Verdelli, Pierre, & Weissman, 2000; Swartz et al., 2005; Vidair et al., 2011). Ferro and colleagues (2000) examined the extent of psychiatric symptoms in 117 mothers of children currently in treatment for depression. Using

the Patient Problem Questionnaire (Spitzer, 1997), they found that 31% (n=36) of the mothers currently met criteria for a psychiatric diagnosis and another 43% (n=50) had significant subsyndromal levels of symptoms. Specifically, 14% (n=16) had major depressive disorder (MDD) and an additional 59% (n=69) had subsyndromal MDD. This was one of the first studies to document the high rates of depression in parents of depressed children in treatment, which was considerably higher than the twelve-month prevalence rate of 6.7% found in the general population (Kessler et al., 2005b; National Institute of Mental Health, 2010c). Also relevant to the present study was that only about 31% (n=5) of the mothers with MDD and 20% (n=14) of mothers with subsyndromal MDD were currently in treatment, which is lower than the rate of 51.7% reported by Wang et al., 2005 (National Institute of Mental Health, 2010c). Overall, 17% (n=20) of the sample was seeking treatment: 13.9% (n=5) with a psychiatric diagnosis, 20% (n=14) with a subsyndromal disorder, and 3% (n=1) with no diagnosis (Ferro et al., 2000).

Swartz and colleagues (2005) examined both depressive and anxiety disorders in 222 mothers of children in mental health treatment. The Structured Clinical Interview for *DSM-IV* (SCID; First et al., 1995) was used to diagnose mothers. They found that 61% (n=135) had a current axis I disorder: 30% (n=67) of mothers had MDD; 42% (n=94) had an anxiety disorder, and 26% (n=57) had comorbid depression and anxiety disorders. One third (33%, n=44) of the mothers with a diagnosed psychiatric disorder were in treatment compared to 3% (n=3) of those with no diagnosis (Swartz et al., 2005).

Recently, Vidair et al. (2011) examined the mental health of mothers (n=801) as well as fathers (n=182) of children in treatment for psychiatric disorders. Parents completed the Brief Symptom Inventory-18 (BSI) about their own recent symptoms. Results showed that 18.80% of mothers and 18.42% of fathers reported elevated internalizing symptoms. One limitation of the

study by Vidair and colleagues (2011) was that they used a short form (i.e., 18 items) of the 53-item BSI (Derogatis & Melisaratos, 1983) to assess parental symptoms, which may have been an underestimate of the parents' psychopathology. Thus, the extent of psychopathology in parents of children receiving services for emotional and behavioral disorders is high. Therefore, these parents should be targeted for intervention, particularly because reducing parents' symptoms has the potential to positively affect their children's psychopathology and treatment response.

Sample Characteristics

Few studies of parental psychopathology have included fathers. In a review of more than 700 studies on parent and child psychopathology, Cassano and colleagues (2006) found that only 45% included fathers and only 1% studied fathers exclusively. Of the three studies that examined psychopathology of parents bringing their children for mental health treatment (Ferro et al., 2000; Swartz et al., 2005; Vidair et al., 2011), only one included fathers, and the ratio of mothers to fathers was over four to one in this study (Vidair et al., 2011).

The ethnic composition of the samples in these three studies also varied. Ferro et al.'s (2000) sample was almost exclusively Hispanic (90%); the sample in Swartz et al. (2005) was predominantly Caucasian (87%); in the study by Vidair et al. (2011), the sample was primarily Hispanic (51%), although more diverse than the other two. These studies found few significant relations between demographic characteristics and parental psychopathology. The current study examined parents' psychopathology in relation to parents' sex and race/ethnicity as well as parents' education, age, marital status, employment status, and type of health insurance. In addition, we investigated the association of parental psychopathology with parents' ratings of their relationship satisfaction, life stress, stresses of being a parent, and overall life satisfaction.

Treatment Barriers

Despite the high rates of psychiatric disorders in these samples, many parents do not seek or receive treatment for themselves (Anderson et al., 2006; Grote, Zuckoff, Swartz, Bledsoe, & Geibel, 2007). Grote and colleagues classified treatment barriers as either “practical” (e.g., lack of time or insurance; not having child care) or “psychological” (e.g., stigma commonly associated with mental health treatment; fear of losing custody of their children if they admit to having a mental illness). Anderson et al. (2006) examined barriers that interfere with treatment seeking in a sample of 127 mothers who were bringing their children for psychiatric services. They found that although these women generally acknowledged their symptoms, the mothers often considered them to be a natural reaction to their present circumstances and not something for which they needed professional help.

Psychological barriers to seeking treatment for mental health problems have been assessed by asking individuals’ about their general attitude about treatment seeking. In a sample of about six thousand people between the ages of 15 and 54, Gonzalez, Alegria, and Prihoda (2005) asked the following three questions: “If you had a serious emotional problem, would you go for professional help?” “How comfortable would you feel talking about personal problems with a professional?” “How embarrassed would you be if your friends knew you were getting professional help for an emotional problem?” Responses were on a 4-point scale (definitely would; probably would; probably would not; definitely would not). Gonzalez et al. found significant relations between these attitudes and participants’ sex, race/ethnicity, and age. Females had significantly more positive attitudes about getting mental health treatment than males; African American individuals had significantly more positive attitudes than Caucasians; older people tended to have more positive attitudes about treatment seeking than younger people.

A more extensive measure of attitudes about treatment seeking is the Attitudes toward Seeking Professional Psychological Help scale (ATSPPH; Elhai, Schweinle, & Anderson, 2008; Fischer & Turner, 1970). A meta-analysis of fourteen studies that used the ATSPPH (Nam et al., 2010) reported that men had significantly less positive attitudes about seeking professional help than women. Additionally, Caucasians had significantly more positive attitudes than either Asians or Asian Americans. Individuals of other races and ethnicities were not examined in these studies, however (Nam et al., 2010).

Attitudes about seeking treatment for psychological help have not yet been studied in a sample of parents whose children are receiving psychiatric services. The mere fact that these parents are bringing their child for professional mental health services would seem to indicate that they have a positive attitude about treatment seeking, at least for their child. Whether such attitudes extend to themselves, however, is not yet known.

In summary, the aims of the current study were to examine the following questions: (a) What are the extent and types of psychopathological symptoms in parents of children in treatment for emotional or behavioral problems? (b) What are demographic and psychological correlates of these parents' psychopathology? (c) To what extent are parents with high versus low levels of symptoms receiving treatment and what types of treatment are they receiving? (d) What demographic and psychological variables are associated with seeking versus not seeking treatment in parents with high levels of symptoms?

Methods

Participants

Participants were 598 parents of children (ages 4-18) receiving professional services for psychiatric problems at the Vanderbilt Child and Adolescent Psychiatry Outpatient Clinic, the

Medical Center at One Hundred Oaks, and the Vanderbilt Medical Group in Franklin. Parents, legal guardians, and/or primary caretakers of the child in treatment were invited to participate. Demographic characteristics of the sample are presented in Table 1. The majority of the parents were mothers (78.3%), Caucasian (78.6%), married (59.5%). The average age of the sample was 40.22 years ($SD=9.18$); the average number of years of education for the overall sample was 14.33 ($SD=3.05$). Finally, the majority of parents had private health insurance (60.3%), followed by TennCare (29.2%), which is Tennessee's version of Medicaid; 10.6% of the parents were uninsured.

Measures

Parents' Psychopathology. The Brief Symptom Inventory (BSI) was used to measure parents' psychiatric symptoms. Participants indicated how much they had experienced each of the 53 symptoms during the last week using a 5-point Likert scale from (1) "Not at All" to (5) "Very, Very Much." Scores were calculated by summing the total of the responses on the 1-5 point scale and dividing by the number of items completed (i.e., 53). The BSI includes nine subscales that measure depression, anxiety, hostility, somatization, obsessive-compulsive, interpersonal sensitivity, phobic anxiety, paranoid ideation, and psychoticism (Derogatis & Melisaratos, 1983). For this study, a few minor changes were made to the BSI. The question that assessed suicidal ideation (item #9) was removed because we could not guarantee immediate follow-up if a parent endorsed this symptom. Second, we added an item to the end of the scale asking about problems due to using substances (e.g., alcohol, drugs).

For some data analyses, participants were divided into two groups: a high BSI and low BSI group. The high BSI group consisted of participants who scored one standard deviation or more above the mean of the general population. The cutoff score for the high BSI group was .46

for males and .64 for females; individuals scoring below these cutoffs were in the low BSI group. Similar cutoffs (i.e., one standard deviation above the mean score of the general population) were used for each of the nine BSI subscales. All parents also were asked if they were currently receiving treatment for any mental health problems, and if so, what type (e.g., medication, therapy, or both), and “how much are these services helping you?”

Life Stress and Satisfaction. Parents completed a measure asking about life stress and satisfaction with the following questions: “How satisfied are you with your relationship with this partner?” (i.e., Relationship Satisfaction). “How stressful is being a parent for you?” (i.e., Parenting Stress). “How stressful is your life overall at the present time?” (i.e., Life Stress). These questions were rated on a 5-point Likert scale. A fourth question asked parents to indicate using a scale from 0 to 100, where 0 means “the worst possible life” and 100 means “the best possible life,” how has their life been overall these days, (i.e., Life Satisfaction).

The *Attitudes toward Seeking Professional Psychological Help* scale (ATSPPH) assesses attitudes about treatment seeking (Elhai et al., 2008; Fischer & Turner, 1970). Parents indicated on a 4-point Likert scale how much they agreed with statements about seeking treatment for psychological problems. Examples of statements on the 10-item version of the measure are: “Talking about problems with a professional is a poor way to get rid of them,” and “If I thought I was having an emotional breakdown, I would get professional help.” Higher scores indicated more favorable opinions about seeking professional help.

Procedure

Parents of consecutive new patients with appointments at one of the three child and adolescent psychiatry clinics were invited to participate. All children were included regardless of their presenting problem or diagnosis. Potential participants were called by a research assistant

(RA) the day before their child's appointment. The RA followed a pre-written script and called parents to remind them of their child's appointment and to describe the research study. Parents who were interested in participating could elect to do so either on paper in the clinic or online using RedCap, a secure online tool for data collection. Parents who chose to complete the packet in the clinic were met in the lobby by an RA who reviewed the consent document, explained the study in more detail, and answered any questions. The full packet took about 10-15 minutes to complete. Parents were given the pen to keep as a thank you for their time.

Results

Demographic Characteristics

Table 1 shows the demographic characteristics of the full sample and broken down for mothers and fathers. Female participants were significantly more likely to be minorities (23.7%) than males (12.3%). Significantly more male participants were married (77.8%) than females (55.1%), and more males (81%) were employed than females (53.4%). Fathers were significantly older ($M = 42.14$, $SD = 9.295$) than mothers ($M = 39.76$, $SD = 9.102$) and had significantly more years of education ($M = 15.00$, $SD = 3.63$) than mothers ($M = 14.17$, $SD = 2.88$).

Extent and Types of Psychopathological Symptoms in Parents

Forty percent of parents had BSI scores in the clinically significant range (i.e., one standard deviation above the mean score of the general population). The percentage of parents scoring in the clinical range for each of the BSI subscales is presented in Figure 1. The most frequently endorsed subscales were those labeled as obsessive compulsive (e.g., "trouble remembering things," "difficulty making decisions," "trouble concentration"), psychoticism (e.g., "feeling lonely even when you are with people," "the idea that you should be punished for your sins," "never feeling close to another person,"), and depression (e.g., "feeling blue,"

“feeling no interest in things,” “feelings of worthlessness”). Table 2 shows the correlations among the BSI subscales. All subscales were significantly correlated with each other.

Correlates of Parents' Psychopathology

Correlations among all study variables are presented in Table 3. Higher BSI total scores were significantly correlated with being female, lower education, being disabled (i.e., unable to work), having TennCare health insurance, and having more biological children. Lower BSI scores were significantly associated with being employed and having private health insurance, which were significantly correlated with each other ($r = .364, p < .01$). Higher levels of psychopathology were significantly associated with other self-report indices of distress including greater dissatisfaction with their relationship with their partner, greater stress of being a parent, higher levels of overall life stress, and lower overall satisfaction with life.

Group differences on the BSI total scores are presented in Table 4. Mothers had significantly higher BSI total scores than fathers ($t = -3.18, p = .002$). Interestingly, the mean BSI scores for both men ($M = .51, SD = .56$) and women ($M = .70, SD = .65$) were above the cutoff of one standard deviation above the norm. On the BSI subscales, mothers reported significantly higher levels of depression, anxiety, obsessive compulsiveness, somatic symptoms, and interpersonal sensitivity (see Table 1).

Married parents had significantly lower BSI total scores compared to parents who were not currently married; employed individuals had lower BSI total scores than the unemployed. Parents who had private insurance had significantly lower total BSI scores compared to parents with TennCare or no insurance, which were not significantly different from each other. Parents who were receiving medication or the combination of medication and therapy had significantly higher BSI total scores compared to parents who were not receiving any psychiatric treatment.

Differences between Parents with High versus Low BSI Scores

When the sample was dichotomized into those with high (one standard deviation or more above the mean of the general population) versus low BSI total scores, some of the findings differed from those using the continuous measure of the BSI. Parents in the high BSI total score group had significantly higher scores on all the BSI subscales, were significantly less likely to be married, employed, or have health insurance, and were significantly more likely to be receiving some kind of treatment as compared to parents with low BSI total scores (see Table 5). High BSI parents also had fewer years of education, higher levels of both parenting stress and life stress, and lower overall life satisfaction compared to low BSI parents. Parents with high versus low BSI total scores did not differ significantly regarding age, sex, race/ethnicity, or attitudes toward seeking treatment.

Psychiatric Treatment of Parents

Table 6 shows the characteristics of parents receiving versus not receiving treatment for psychiatric problems. Overall, 42.5% of parents were in some form of treatment. Of the 246 parents in treatment, 8.9% were receiving psychotherapy only, 55.7% were taking medication only, and 35.4% were receiving both medication and psychotherapy. Parents in treatment had significantly higher BSI total scores and higher scores on each of the BSI subscales compared to parents not in treatment. Parents receiving treatment also were significantly more likely to be female, older, have more positive attitudes about seeking professional psychological services, and to report higher levels of life stress, parenting stress, and overall dissatisfaction with life.

Being in treatment (i.e., either medication or therapy) was significantly correlated being disabled/unable to work and with having health insurance (see Table 3). Receiving therapy was significantly correlated with greater relationship dissatisfaction, higher levels of parenting stress,

and having TennCare health insurance. Taking medication was significantly positively correlated with being Caucasian and negatively correlated with being employed and being African American.

A central question of the current study was whether parents with high levels of psychiatric symptoms were receiving treatment. Table 7 shows the number and percent of parents with high and low BSI scores who were and were not in treatment. The overall comparison of the four cells was significant ($X^2 = 31.897$, $df = 1$, $p = .001$). Among the 229 parents with high BSI scores, significantly more were in treatment than were not ($X^2 = 4.20$, $df = 1$, $p = .04$); 43.2% of parents with high BSI scores were not receiving any treatment, leaving 56.8% of high BSI parents who were receiving some form of treatment: therapy only (7.7%), medication only (56.9%), and medication and therapy (35.4%). Among the 243 parents who were in treatment, 53.5% had high BSI total scores and 46.5% had low BSI total scores; this difference was not significant.

Of the 343 parents with low BSI scores, 32.9% were receiving treatment: therapy only (9.7%), medication only (54.0%), and medication and therapy (36.3%). Among the 229 parents not in treatment, significantly more had low (70%) as compared to high BSI scores ($X^2 = 52.16$, $df = 1$, $p = .000$). Among the 343 parents with low BSI scores, significantly more were not in treatment (67%) than were in treatment ($X^2 = 39.91$, $df = 1$, $p = .000$).

Parents with High BSI Scores Who were versus were Not in Treatment

Among parents with high BSI scores, those who were in treatment were significantly more likely to have endorsed depression ($t = -2.795$, $df = 220$, $p = .006$), anxiety ($t = -3.090$, $df = 226$, $p = .002$), somatization ($t = -2.130$, $df = 226$, $p = .034$), and psychoticism ($t = -2.217$, $df = 222$, $p = .028$) compared to those who were not in treatment (see Table 8). Parents with high BSI

scores who were in treatment were significantly older ($t = -3.34$, $df = 216$, $p = .001$), had significantly lower life satisfaction ratings ($t = 2.266$, $df = 209$, $p = .024$), and had a significantly more positive attitude about seeking treatment ($t = -3.66$, $df = 209$, $p = .01$) than those not in treatment. Parents who had high BSI scores but were not in treatment were significantly more likely to be employed than not employed, whereas the reverse pattern was found for high BSI parents who were in treatment. There was a nonsignificant trend for parents with high BSI scores not in treatment to be without health insurance as compared to those who were in treatment.

Parents with high BSI scores who were versus were not in treatment did not differ significantly with regard to their BSI total scores or the following BSI subscales: obsessive compulsive, hostility, paranoid ideation, interpersonal sensitivity, or phobias. They also did not differ significantly regarding sex, race/ethnicity, marital status, years of education, parenting stress, or life stress.

Parents with Low BSI Scores Who were versus were Not in Treatment

Table 8 also shows that among parents with low BSI scores, those who were in treatment were significantly more likely than those not in treatment to have high scores on the BSI total score ($t = -3.969$, $df = 341$, $p = .01$) and the following BSI subscales: depression ($t = -2.294$, $df = 338$, $p = .022$), anxiety ($t = -4.114$, $df = 182$, $p = .000$), hostility ($t = -3.527$, $df = 225$, $p = .001$), obsessive-compulsive ($t = -2.033$, $df = 341$, $p = .043$), interpersonal sensitivity ($t = -2.197$, $df = 341$, $p = .029$), and psychoticism ($t = -2.113$, $df = 340$, $p = .035$). Among parents with low BSI scores, those in treatment were significantly more likely to be mothers than fathers ($X^2 = 13.545$, $df = 1$, $p = .000$), to have more years of education ($t = -2.197$, $df = 301$, $p = .029$), and to have more positive attitudes about seeking treatment ($t = -3.186$, $df = 301$, $p = .01$) compared to those not in treatment. There was a nonsignificant trend for those with low BSI scores who were not in

treatment to not have health insurance ($X^2 = 5.40$, $df = 2$, $p = .067$) as compared those who were in treatment.

Parent with low BSIs who were versus were not in treatment did *not* differ significantly with regard to the BSI subscales of somatic, paranoid ideation, and phobic. These parents also did not differ significantly with regard to race/ethnicity, marital status, employment, age, parenting stress, life stress, or overall life satisfaction.

Relations among Other Study Variables

Sex differences. Compared to fathers, mothers rated parenting to be significantly more stressful ($t = -3.779$, $p = .000$), reported higher levels of general life stress ($t = -3.17$, $p = .002$), and lower overall life satisfaction ($t = 2.65$, $p = .008$). Fathers were significantly more likely to have private health insurance than either TennCare or no insurance. Mothers were significantly more likely to have private insurance than either TennCare or no insurance, and significantly more likely to have TennCare than no insurance.

Health Insurance. Having no health insurance was significantly correlated with higher levels of life stress ($r = .093$, $p < .05$). TennCare health insurance also was significantly, positively associated with higher levels of life stress ($r = .131$, $p < .01$), greater relationship dissatisfaction ($r = .318$, $p < .01$), and lower overall satisfaction with their lives ($r = -.205$, $p < .01$). In contrast, having private health insurance was significantly, negatively correlated with levels of life stress ($r = -.169$, $p < .01$) and relationship dissatisfaction ($r = -.366$, $p < .01$), and was significantly, positively correlated with overall life satisfaction ($r = .228$, $p < .01$).

Parents with no health insurance had fewer years of education ($r = -.162$, $p < .01$) and were more likely to be unemployed ($r = .169$, $p < .01$). TennCare parents had fewer years of education ($r = -.384$, $p < .01$), were less likely to be employed ($r = -.222$, $p < .01$), and were more

likely to be disabled ($r = .312, p < .01$). In contrast, parents with private health insurance had significantly more years of education ($r = .460, p < .01$), were more likely to be employed ($r = .364, p < .01$), less likely to be disabled ($r = -.155, p < .01$), less likely to be African American ($r = -.187, p < .01$), and more likely to be Caucasian ($r = .352, p < .01$).

Attitude toward Seeking Professional Psychological Help (ATSPPH)

Finally, Table 9 presents the relations with ATSPPH scores. More positive attitudes toward seeking professional psychological help were significantly associated with being female ($t = -5.005, p = .000$), Caucasian ($t = -2.343, p = .020$), and being in treatment (medication only, medication and therapy) ($t = 7.964, p = .000$). Being better educated also was significantly correlated with a more positive attitude about professional help (see Table 3). A less favorable attitude toward professional help was associated with having no health insurance ($r = -.092, p < .05$) and being unemployed ($r = -.091, p < .05$).

Discussion

The present study found that among parents of children receiving services for psychiatric problems, 40% endorsed total symptoms scores on the BSI that were at least one standard deviation above the normative mean. This level of psychopathology was considerably higher than the twelve-month prevalence rate of 26.2% found in the general population (Kessler et al., 2005b; National Institute of Mental Health, 2010a), although consistent with what has been found in the few other studies of parents of children in treatment for psychiatric problems (Ferro et al., 2000; Swartz et al., 2005; Vidair et al., 2011). Swartz et al. (2005) reported that 61% of parents of children being brought to a clinic for psychiatric services had a current axis I disorder: MDD, anxiety disorder, or both. Ferro and colleagues (2000) reported that 31% of parents had high enough levels of symptom to be diagnosed with MDD. Vidair et al. (2011) used an 18-item

version of the BSI to assess parents' current symptoms and found that about 18.6% of parents reported high levels of internalizing symptoms. Thus, the extent of psychopathology in parents in the current study fell well within the range reported in similar studies.

The most frequently endorsed BSI subscales were those labeled as obsessive compulsive, psychoticism, and depression. A more careful examination of the items comprising these scales, however, reveals that they may have been misnamed. For example, the "obsessive compulsive" subscale really is characterized by the kinds of concentration difficulties that often are part of depression (e.g., difficulty making decisions). Similarly, several items on the "psychoticism" subscale deal with feeling lonely or not feeling close to others, which seem to reflect interpersonal difficulties rather than psychosis. Indeed, depression was highly correlated with both the obsessive compulsive ($r = .737, p < .001$) and psychosis ($r = .835, p < .001$) subscales; also, the psychosis and interpersonal sensitivity subscales were correlated ($r = .735, p < .001$).

Characteristics and Correlates of Parents' Psychopathology

We investigated parents' psychopathology based on their scores on the BSI examined both as a continuous measure and as a dichotomy of high and low BSI scores. The high BSI group was defined as individuals scoring one standard deviation or more above the mean of the general population, which was .64 for females and .46 for males; individuals with total BSI scores below these cutoffs were in the low BSI group.

Using the continuous measure, higher BSI total scores were significantly associated with being female, not being married, lower education, not being employed or being unable to work/disabled, having TennCare health insurance and not having private health insurance, and having more biological children. That is, mothers had significantly higher BSI total scores than fathers. Parents who had private insurance had significantly lower total BSI scores compared to

parents with TennCare or no insurance, which were not significantly different from each other. Parents who were receiving medication or the combination of medication and therapy also had significantly higher BSI total scores compared to parents who were not receiving any psychiatric treatment.

Higher levels of parents' psychopathology also were significantly correlated with other self-report indices of distress including greater dissatisfaction with their relationship with their partner, greater stress of being a parent, higher levels of overall life stress, and lower overall satisfaction with life. These latter correlations could have been due, in part, to common method variance, given that all of this information was self-report. Nevertheless, the correlations of the BSI with these other indices of stress and distress provide further validation of each.

When the sample was dichotomized into parents with high (one standard deviation or more above the mean of the general population) versus low BSI total scores, some of similarities and differences from those based on the continuous measure of the BSI emerged. Parents in the high BSI total score group had significantly higher scores on all the BSI subscales, were less likely to be married, employed, or have health insurance, and were significantly more likely to be receiving some kind of treatment as compared to parents with low BSI total scores. High BSI parents also had fewer years of education, higher levels of both parenting stress and life stress, and lower overall life satisfaction compared to low BSI parents.

Parents with high versus low BSI total scores did not differ significantly regarding age, race/ethnicity, attitudes toward seeking treatment, or sex. That is, the ratio of women to men in the high and low BSI groups was not significantly different, although on average, mothers had higher BSI scores than fathers. Thus, overall parents who had certain vulnerabilities (e.g., fewer

years of education), were experiencing more actual (e.g., unemployed, no private health insurance), and perceived life stress had more self-reported psychiatric symptoms on the BSI.

Treatment of Parents' Psychopathology

The central question of the current study was whether parents with high levels of psychiatric symptoms were receiving treatment. We found that among parents with high BSI scores, 43.2% were not receiving treatment. That is, among parents with clinically significant levels of symptoms (i.e., high BSI scores), 56.8% were in some form of psychiatric treatment during the past month. This rate is higher than what has been found in the general population. For example, the Epidemiologic Catchment Area (ECA) study (Shapiro et al., 1984) and the National Comorbidity Survey (Kessler, 1994) revealed that approximately one-third of depressed people in the community receive treatment. Similarly, Wang and colleagues (2005) reported that less than half of adults with diagnosable mental illness seek treatment (National Institute of Mental Health, 2010a). Given that the parents in this study were already bringing their children for psychiatric services, however, it is possible that these individuals were more aware and accepting of treating mental health problems than is found in the general population.

Parents with high BSI scores who were receiving treatment were for the most part taking medications (92%) either alone or in combination with therapy; 43% were receiving therapy, although only 7.7% of these high BSI parents who were in treatment were getting therapy only. Moreover, it is quite likely that at least some of these parents were prescribed medication(s) for their psychiatric problems from their primary care physician or some other health care provider who was not a psychiatrist. Thus although over 50% of parents with high levels of psychiatric symptoms reported receiving some treatment, we do not know anything about the service providers or the quality and monitoring of the interventions they received.

Parents with high BSI scores who were versus were not in treatment. Parents with high BSI scores who were in treatment were significantly more likely to score higher on the BSI subscales of depression, anxiety, somatization, and psychoticism as compared to those who were not in treatment. In contrast, on none of the BSI subscales did parents not in treatment score significantly higher than those in treatment. Importantly, high BSI parents who were versus were not receiving treatment did not differ significantly on their BSI total scores. Thus, any differences between these individuals likely were not simply due to overall symptom severity.

High BSI score parents who were *not* receiving treatment were significantly younger, were more likely to be employed than not employed, had higher life satisfaction ratings, and endorsed less positive attitudes about seeking treatment as compared to high BSI parents in treatment. There also was a tendency for high BSI parents who were not in treatment to not have health insurance. Thus, possible barriers to treatment seeking among parents with high levels of symptoms include the practical problem of not having health insurance, and a psychological barrier of having a less positive attitude about seeking professional psychological services for themselves. Finally, high BSI parents who were receiving versus not receiving treatment did *not* differ significantly with regard to sex, race/ethnicity, marital status, years of education, parenting stress, or life stress.

Parents with low BSI scores who were versus were not in treatment. About one third of parents with low BSI scores, were receiving some form of psychiatric treatment: mostly medications (90.3%) either alone or in combination with therapy; 46% were receiving therapy; only 9.7% of these low BSI parents who were in treatment were getting therapy only.

Among parents with low BSI scores, those who were in treatment had significantly higher BSI total scores and higher scores on 6 of the 9 BSI subscales: depression, anxiety,

hostility, obsessive-compulsive, interpersonal sensitivity, and psychoticism, compared to those not in treatment. Thus, although their overall BSI level was categorized as low, those parents currently in treatment endorsed significantly more symptoms than parents not in treatment, which might partially account for why they were in treatment at this time. It also is possible, however, that the low BSI parents not currently in treatment had higher scores at some earlier point, received treatment, and are now improved. Alternatively, the low BSI parents currently in treatment might reflect a distinct group of people who may need longer, different, or better treatment for their BSI scores to drop even further.

Low BSI parents in treatment were significantly more likely to be mothers than fathers, to have more years of education, and to have more positive attitudes about seeking treatment compared to those not in treatment. There also was a tendency for low BSI score parents who were receiving treatment to have health insurance, whereas parents not in treatment were more likely not to have health insurance. Thus, better educated women who have a more positive attitude about treatment seeking, and have health insurance may be more inclined to initiate or maintain treatment even when their symptom levels are within the normative range.

Strengths and Limitations

Strengths of the current study included a large, economically diverse sample of parents, acquisition of data from fathers as well as mothers, assessment of a range of demographic variables (e.g., marital status, employment status, health insurance), and the evaluation of potential barriers to treatment seeking (e.g., insurance; attitudes). Moreover, the sample of children as well as parents was more diagnostically heterogeneous as compared to earlier studies that focused predominantly on depression and anxiety.

Limitations of the study should be noted as they provide directions for future research. First, we assessed parental psychopathology with a self-report questionnaire rather than a psychiatric interview. Although the BSI is a widely-used and well-validated measure of psychopathological symptoms, future studies of parents' psychopathology should include a more extensive assessment of DSM-IV psychiatric diagnoses.

Second, we did not adequately assess children's presenting problems and diagnoses. Although we did ask parents to briefly describe their reason for bringing their child to the clinic, a sizable subset wrote that the child was coming to the clinic for therapy or for medication, without indicating the problem for which this treatment was being provided. Better information about both parents' and children's symptoms and disorders would have allowed us to examine the relations between them as has been reported in other studies (e.g., Swartz et al., 2005; Vidair et al., 2011). Nevertheless, in contrast to other studies of psychopathology in parents of children being treated for psychiatric disorders that predominantly focused on depression and anxiety in both children and parents (e.g., Ferro et al., 2000; Swartz et al., 2005), the current study included children with a range of psychiatric conditions (e.g., autism spectrum disorders, ADHD, depression, anxiety, oppositional defiant disorder).

Third, although we were able to describe characteristics of parents who brought their children to a psychiatric clinic, we did not have the same types of information about parents who were not bringing their children for services. Therefore, we cannot draw conclusions about parents of children with psychiatric disorders, in general, from this study because we only assessed parents who were bringing their children to a psychiatric outpatient clinic. Future studies also should include parents of children with emotional or behavioral problems who are not bringing their child to the clinic, as well as parents of psychiatrically healthy children. Such

groups would allow for a more comprehensive evaluation of psychopathology and treatment seeking in parents more generally, and not just among parents of children receiving mental health services. Even without these comparisons, however, the present study showed that a sizeable percent of parents were experiencing significant levels of psychiatric symptoms, as compared to the norms for the BSI.

Fourth, although we were able to include some fathers, a larger and more representative group of male caretakers would allow for better generalizability of the findings. Moreover, approximately two thirds of the fathers in the sample had a spouse who also participated. Thus, the sample was not totally “independent.” Further analyses are planned to explore the covariation between mothers and fathers of the same child, as well as to recalculate the results for only one parent per family.

Finally, the current study included several variables, some of which were correlated. Future studies should use more sophisticated data reduction and data analytic techniques (e.g., factor analysis; discriminant function analysis) to create a smaller, and more focused group of variables. Moreover, given the number of statistical tests conducted, correction for multiple comparisons is needed.

Clinical Implications

Results of this study have clear implications for clinical practice. First, parents of children receiving professional services for psychiatric problems should be assessed for their own psychopathology. The relatively high rates of psychiatric symptoms in parents found in the present study is further evidence of the need for serious evaluation and treatment of parents’ psychopathology when treating children’s emotional and behavioral problems. These parents should be targeted for intervention, particularly because reducing parents’ symptoms potentially

can positively affect their children's psychopathology and response to treatment (Beardslee et al., 1998; Garber et al., 2009; Swartz et al., 2005; Weissman et al., 2006).

In addition to targeting and treating parents' psychopathology, we should attempt to reduce the barriers to parents seeking services. A clear practical barrier for about 15% of the sample was the lack of health insurance. This highlights the relevance of these findings for social policy and public health initiatives.

Second, a possibly easier target might be to change parents' attitudes about treatment seeking. The use of motivational interviewing techniques with parents (e.g., Swartz et al., 2008) may help to change parents' ambivalence and possible resistance to getting treatment for themselves. Educating the public about the benefits to children of reducing psychiatric symptoms in parents, particularly through appropriate professional interventions, might improve parents' attitudes about treatment seeking, and hopefully affect their behaviors as well.

Future Directions

In summary, this study provided further evidence of the high rates of psychopathology in parents bringing their children to a psychiatric clinic for evaluation and treatment. Even more important was the finding that a substantial percent of parents with clinically significant psychopathology are not getting treatment. Future studies need to identify the obstacles to parents getting treatment and to develop and implement strategies for reducing these barriers. Results of this study highlighted the need to make mental health services more accessible and less stigmatizing. Some potential strategies include offering more information about various psychiatric symptoms and disorders so that they can recognize them more easily, normalizing the experience of these symptoms, providing data showing that treatments can work, and the importance of parents' mental health for that of their children. Finally, randomized controlled

trials are needed to test the effects of reducing parents' symptoms on children's psychopathology as well as the reverse.

References

- Anderson, C. M., Robins, C. S., Greeno, C. G., Cahalane, H., Copeland, V. C., & Andrews, R. M. (2006). Why lower income mothers do not engage with the formal mental health care system: Perceived barriers to care. *Qualitative Health Research, 16*, 926-43.
- Beardslee, W.R., Versage, E.M., & Gladstone, T.R.G. (1998). Children of affectively ill parents: a review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*(11), 1134-1141.
- Cassano, M., Adrian, M., Veits, G., & Zeman, J. (2006): The Inclusion of Fathers in the Empirical Investigation of Child Psychopathology: An Update, *Journal of Clinical Child & Adolescent Psychology, 35*(4), 583-589.
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: an introductory report. *Psychological Medicine, 13*, 595-605.
- Elhai, J. D., Schweinle, W., & Anderson, S. M. (2008). Reliability and validity of the Attitudes Toward Seeking Professional Psychological Help Scale-Short Form. *Psychiatry Research, 159*, 320-329.
- Ferro, T., Verdelli, H., Pierre, F. & Weissman, M. M. (2000). Screening for depression in mothers bringing their offspring for evaluation or treatment of depression. *American Journal of Psychiatry, 157*, 375-379.
- First, M., Spitzer, R., Gibbon, M., et al. (1995). Structured Clinical Interview for *DSM-IV* Axis I Disorders (SCID). New York, New York State Psychiatric Institute, Biometrics Research.
- 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.

- Garber, J., Clarke, G. N., Weersing, V. R., Beardslee, W.R., Brent, D.A., Gladstone, T.R.G., et al. (2009). Prevention of depression in at-risk adolescents: a randomized controlled trial. *JAMA*, *301*(21), 2215-2224.
- Gonzalez, J. M., Alegria, M., & Prihoda, T. J. (2005). How do attitudes toward mental health treatment vary by age, gender, and ethnicity/race in young adults? *Journal of Community Psychology*, *33*, 611-629.
- Grote, N. K., Zuckoff, A., Swartz, H., Bledsoe, S. E., & Geibel, S. (2007). Engaging women who are depressed and economically disadvantaged in mental health treatment. *Social Work*, *52*, 295-308.
- Kessler, R.C. (1994). The National Comorbidity Survey of the United States. *International Review of Psychiatry*, *6*, 365-376.
- Kessler, R.C., Berglund, P.A., Demler, O., Jin, R., & Walters, E.E. (2005a). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, *62*(6), 593-602.
- Kessler, R.C., Chiu, W.T., Demler, O., & Walters, E.E. (2005b). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, *62*(6), 617-27.
- Merikangas, K.R., He, J., Burstein, M., Swanson, S.A., Avenevoli, S., Cui, L., et al. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study – Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(10), 980-989.

- Nam, S. K., Chu, H. J., Lee, M. K., Lee, J. H., Kim, N., & Lee, S. M. (2010). A Meta-analysis of gender differences in attitudes toward seeking professional psychological help. *Journal of American College Health, 59*, 110-116.
- National Institute of Mental Health. (2010a, July 29). Any disorder among adults. Retrieved from http://www.nimh.nih.gov/statistics/1ANYDIS_ADULT.shtml
- National Institute of Mental Health. (2010b, July 29). Any disorder among children. Retrieved from http://www.nimh.nih.gov/statistics/1ANYDIS_CHILD.shtml
- National Institute of Mental Health. (2010c, July 29). Major depressive disorder among adults. Retrieved from http://www.nimh.nih.gov/statistics/1MDD_ADULT.shtml
- Shapiro, S., Skinner, E.A., Kessler, L.G., Von Korff, M., German, P.S., Tischler, G.L., Leaf, P.J., Benham, L., Cottler, L., & Regier, D.A. (1984). Utilization of health and mental health services: three Epidemiologic Catchment Area sites. *Archives of General Psychiatry, 41*, 971-978.
- Spitzer, R.L. (1997). PRIME-MD Patient Problem Questionnaire. New York, New York State Psychiatric Institute, Biometrics Unit.
- Swartz, H.A., Frank, E., Zuckoff, A., et al. (2008). Brief interpersonal psychotherapy for depressed mothers whose children are receiving psychiatric therapy. *American Journal of Psychiatry, 165*, 1155 -1162.
- Swartz, H.A., Shear, M.K., Greeno, C., Wren, F.J., Sales, E., Sullivan, B.K., et al. (2005). Depression and anxiety among mothers who bring their children to a pediatric mental health clinic. *Psychiatric Services, 56*, 1077-1083.
- Vidair, H. B., Reyes, J. A., Shen, S., Parrilla-Escobar, M. A., Heleniak, C. M., Hollin, I. L., et al. (2011). Screening parents during child evaluations: Exploring parent and child

psychopathology in the same clinic. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50, 441-450.

Wang, P.S., Lane, M., Olfson, M., Pincus, H.A., Wells, K.B., & Kessler, R.C. (2005). Twelve month use of mental health services in the United States. *Archives of General Psychiatry*, 62(6), 629-640.

Weissman, M.M., Wickramaratne, P., Nomura, Y., Warner, V., Pilowsky, D., & Verdeli, H. (2006). Offspring of depressed parents: 20 years later. *The American Journal of Psychiatry*, 163(6), 1001-1008.

Table 1. Sample Characteristics

	Whole Sample		Mothers		Fathers		
	N	(%)	N	(%)	N	(%)	
Sex							
Mothers	468	(78.3%)					
Fathers	130	(21.7%)					
Race/Ethnicity							
Caucasian	422	(78.6%)	329	(76.3%)	93	(87.7%)	
African American	76	(14.2%)	71	(16.5%)	5	(4.7%)	
Latino	16	(3.0%)	11	(2.6%)	5	(4.7%)	
Asian	1	(.2%)	1	(.2%)	0	(.0%)	
Pacific Islander	1	(.2%)	1	(.2%)	0	(.0%)	
Multi-Racial	18	(3.4%)	15	(3.5%)	3	(2.8%)	
Other	3	(.56%)	3	(.7%)	0	(.0%)	
Marital Status							
Married	328	(59.5%)	244	(55.1%)	84	(77.8%)	
Divorced	82	(14.9%)	70	(15.8%)	12	(11.1%)	
Separated	18	(3.3%)	17	(3.8%)	1	(.9%)	
Widowed	11	(2.0%)	11	(2.5%)	5	(4.6%)	
Cohabit	36	(6.5%)	31	(7.0%)	0	(.0%)	
Single; Never Married	70	(12.7%)	64	(14.4%)	6	(5.6%)	
Other	6	(1.1%)	6	(1.4%)	0	(.0%)	
Treatment							
None	333	(57.5%)	243	(53.4%)	90	(72.6%)	
Therapy only	22	(3.8%)	17	(3.7%)	5	(4.0%)	
Medication only	137	(23.7%)	118	(25.9%)	19	(15.3%)	
Medication + Therapy	87	(15.0%)	77	(16.9%)	10	(8.1%)	
	N	(%)	N	(%)	N	(%)	
Race						X²	
Not Minority	422	(78.6%)	329	(76.3%)	93	(87.7%)	6.57**
Minority	115	(21.4%)	102	(23.7%)	13	(12.3%)	
Marital Status							18.57***
Married	328	(59.5%)	244	(55.1%)	84	(77.8%)	
Not Married	223	(40.5%)	199	(44.9%)	24	(22.2%)	
Employment							26.48***
Employed	319	(58.7%)	234	(53.4%)	85	(81.0%)	
Not employed	224	(41.3%)	204	(46.6%)	20	(19.0%)	
Insurance							16.64***
Private	314	(60.3%)	239	(57.0%) ^a	75	(73.5%) ^a	
TennCare	152	(29.2%)	139	(33.2%) ^b	13	(12.7%) ^b	
None	55	(10.6%)	41	(9.8%) ^c	14	(13.7%) ^b	
	M (SD)		M (SD)		M (SD)		t
Age	40.22	(9.180)	39.76	(9.102)	42.14	(9.295)	2.40*
Years of Education	14.33	(3.053)	14.17	(2.876)	15.00	(3.629)	2.19*
ATSPPH Total Score	22.40	(5.014)	22.93	(4.803)	20.23	(5.293)	-5.01**
BSI Total Score	.66	(.635)	.70	(.649)	.51	(.561)	-3.18**
Depression	.73	(.891)	.77	(.924)	.56	(.739)	-2.71**
Anxiety	.70	(.772)	.76	(.804)	.48	(.595)	-4.39***
Obsessive Compulsive	1.17	(.970)	1.24	(1.004)	.89	(.780)	-4.26***
Hostility	.69	(.699)	.71	(.707)	.63	(.667)	-1.18
Psychotic	.47	(.657)	.49	(.682)	.39	(.554)	-1.65

Somatic	.55 (.663)	.62 (.679)	.32 (.538)	-5.22**
Paranoid Ideation	.64 (.795)	.64 (.809)	.62 (.744)	-.351
Interpersonal Sensitivity	.65 (.835)	.71 (.863)	.46 (.694)	-3.45***
Phobic Anxiety	.26 (.609)	.28 (.637)	.19 (.487)	-1.80
Helpfulness of Services	5.95 (2.479)	6.12 (2.414)	4.96 (2.67)	-2.18*
Stress of being a parent	3.02 (1.028)	3.10 (1.046)	2.69 (.880)	-3.78***
Overall Life Stress	3.25 (1.049)	3.32 (1.054)	2.97 (.985)	-3.17**
Life Satisfaction Rating	6.86 (2.177)	6.74 (2.202)	7.36 (2.005)	2.65**

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

Tx = treatment; Employed = full- or part-time; ATSPPH = Attitudes toward Seeking Professional Psychological Help scale; BSI = Brief Symptom Inventory

Table 2. Correlations among BSI subscales

	Som	OC	Inter Sen	Dep	Anx	Hos	Phob	Para	Psy
Somatic	--								
Obsessive Compul	.649 ^{***}	--							
Interper Sensitivity	.582 ^{***}	.679 ^{***}	--						
Depression	.633 ^{***}	.737 ^{***}	.744 ^{***}	--					
Anxiety	.715 ^{***}	.719 ^{***}	.722 ^{***}	.786 ^{***}	--				
Hostility	.534 ^{***}	.688 ^{***}	.609 ^{***}	.707 ^{***}	.677 ^{***}	--			
Phobic	.560 ^{***}	.515 ^{***}	.636 ^{***}	.568 ^{***}	.663 ^{***}	.468 ^{***}	--		
Paranoid	.586 ^{***}	.594 ^{***}	.685 ^{***}	.678 ^{***}	.634 ^{***}	.613 ^{***}	.579 ^{***}	--	
Psychosis	.610 ^{***}	.700 ^{***}	.735 ^{***}	.835 ^{***}	.753 ^{***}	.671 ^{***}	.664 ^{***}	.767 ^{***}	--

***p < .001; Obsessive Compul = Obsessive Compulsive; Interper Sensitivity = Interpersonal Sensitivity