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Erin Girio-Herrera [a], Julie Sarno Owens [b] & Joshua M. Langberg [c d]

[a] Department of Psychology, University of Miami

[b] Department of Psychology, Ohio University

[c] Department of Pediatrics, Cincinnati Children's Hospital

[d] Department of Psychology, Virginia Commonwealth University

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Perceived Barriers to Help-Seeking Among Parents of At-Risk Kindergarteners in Rural Communities

Erin Girio-Herrera
Department of Psychology, University of Miami

Julie Sarno Owens
Department of Psychology, Ohio University

Joshua M. Langberg
Department of Pediatrics, Cincinnati Children's Hospital and Department of Psychology, Virginia Commonwealth University

This study examined help-seeking and perceived barriers to children's mental health service utilization in a large sample of parents living in rural communities who are at various stages in the help-seeking process. The goals were to (a) obtain a demographic profile of at-risk kindergarteners and their parents, (b) examine parent-reported help-seeking behaviors, and (c) assess barriers to mental health service use. Parent and teacher report of the Behavior Assessment System for Children, Second Edition, were used to screen children ($N = 597$) at kindergarten entry and to identify their risk status. Parents also completed the Barriers to Participation Scale and reported the frequency of help-seeking behaviors related to their child's problems. Using a cutoff score of 1.5 standard deviations above the mean, nearly half (51%) of children were identified as at-risk (76% low risk, 24% high risk) for emotional, behavioral, social, and adaptive problems. Barriers and help-seeking did not differ across parents of low and high risk children. Among parents of at-risk children, only 33% believed their child had a problem. Parents sought informal help more often than professional help; however, medical doctors and school staff were sought most among professionals. The majority of parents (61%) endorsed at least one barrier that would interfere with mental health service use. Results highlight the importance of early school mental health screening and the need for interventions to increase parent problem recognition and engagement in mental health service utilization.

An estimated 7.5 million children in the United States have unmet mental health needs (Kataoka, Zhang, & Wells, 2002). One contributing factor is that many at-risk youth are never identified and therefore do not receive intervention (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). Because parents serve as the gateway through which children obtain evaluations and interventions, understanding parent help-seeking and perceived barriers to service use provides valuable information toward reducing unmet mental health needs for children.

Models of mental health service consistently identify three key stages of help-seeking: problem recognition, decision to seek help, and service selection and utilization (e.g., Goldsmith, Jackson, & Hough, 1988; Srebnik, Cauce, & Baydar, 1996). Some parents never begin the process because they do not recognize a problem (e.g., Teagle, 2002), whereas others may experience real or

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Correspondence should be addressed to Erin Girio-Herrera, Department of Psychology, University of Miami, 5665 Ponce de Leon Boulevard, Coral Gables, FL 33146. E-mail: girioherrera@psy.miami.edu

perceived barriers sometimes as a result of increased stress and psychopathology that interfere with help-seeking (e.g., Johnston & Mash, 2001). Parents use both formal (e.g., physicians, psychologists) and informal (e.g., family, friends) consultation in the help-seeking process (Harrison, McKay, & Bannon, 2004). Evidence suggests that parents tend to pursue help for their children more from the medical community than mental health community (MacNaughton & Rodrigue, 2001); however, the amount of informal support utilized compared to professional help is less clear.

Kindergarten entry represents an opportune time to identify mental health problems for the first time (Rimm-Kauffman, Pianta, & Cox, 2000) and to assess parent help-seeking behaviors. The transition to kindergarten is associated with a marked increase in environmental structure and formal academic, social, and behavioral demands, and the child's behavior will be observed in multiple settings by multiple adults, increasing the likelihood of problems being noticed. Further, kindergarten entry offers an opportunity for school staff to communicate with parents about child functioning as children enter the school system. Thus, an understanding of parent help-seeking beliefs and barriers that may interfere with mental health service utilization is needed.

PERCEIVED BARRIERS TO MENTAL HEALTH SERVICE UTILIZATION

Owens and colleagues (2002) categorized barriers into three categories: structural (practical) barriers, perceptions about mental health problems, and perceptions about mental health services. Multiple studies on barriers, which typically use parent self-report methodology, demonstrate that families with higher parent-perceived barriers were more likely to find treatments less acceptable, drop out, receive less treatment, and have higher rates of no-shows than families with lower perceived barriers (e.g., Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, & Breton, 1997). However, the majority of research on barriers is based on families that had already obtained treatment and does not provide information on perceived barriers experienced by families that may be earlier in the help-seeking process. Thus, barriers research is limited to families that have completed the first stage of the help-seeking process, that is, they have recognized that a problem exists. Given that parent problem recognition has been shown to predict service use (Teagle, 2002), studying perceived barriers among families that may not yet recognize a problem is an important next step. In addition, because previous barriers studies were conducted in university-based clinics in metropolitan settings, results may not generalize to other populations and settings.

PERCEIVED BARRIERS TO SERVICE UTILIZATION IN RURAL COMMUNITIES

There is some evidence that barriers may be greater among low-income families living in rural communities where mental health resources are scarce (e.g., Reschovsky & Staiti, 2005). Rural communities are often defined by their population density and distance from metropolitan areas (U.S. Department of Agriculture, 2003). Although each rural setting is distinct, barriers to health and mental health services commonly experienced in rural locations are categorized as not acceptable due to concerns about stigma and low privacy; not available due to limited training and lack of providers; and not accessible due to geographic isolation, transportation challenges, and financial difficulty (DeLeon, Wakefield, & Haggland, 2003). However, studies specifically examining parent-perceived barriers to children's mental health services in rural communities (Pullmann, VanHooser, Hoffman, & Heflinger, 2010; Starr, Campbell, & Herrick, 2002) are limited by sample sizes of 30 or fewer, calling into question the generalizability of the conclusions. This study examines a substantially larger sample of families to provide a more extensive look at parent-perceived barriers in rural communities.

PURPOSE OF THE STUDY

The goals of the study were to (a) present the demographic profile of low and high at-risk kindergarteners and their parents from rural communities who are at various stages of help-seeking, (b) examine parent-reported help-seeking behaviors of those with low and high at-risk children, and (c) assess parent perceived barriers to mental health service utilization in a large sample of families. Contextual factors are important for understanding the community in which this study occurred and interpreting results. In particular, all counties (a) were nonmetropolitan regions (codes 4–9) based upon the Rural-Urban Continuum Codes, determined by degree of urbanization and adjacency to a metropolitan area (U.S. Department of Agriculture, 2003); (b) were between 50 and 95 miles from a major metropolitan area; and (c) had high school completion rates, per capita income, and median household income below state averages (U.S. Census Bureau, 2009). Further, three of the six counties were economically "distressed" (10% of the nation's worst counties) and two were "at

TABLE 1
Characteristics of Child Participants by Screening Results

	On Track[a] *n* (%)	*Low Risk*[b] *n* (%)	*High Risk*[c] *n*(%)	*Total At-Risk*[d] *n*(%)	*Total Sample*[e] *n* (%)
Child Age (*M, SD*)	5.48 (.32)	5.49 (.31)	5.44 (.32)	5.47 (.32)	5.47 (.32)
Caregiver Age (*M, SD*)	31.76 (6.78)	31.51 (7.59)	31.34 (6.75)	31.47 (7.39)	31.61 (7.09)
Gender (% Male)	129 (44.3)	111 (47.6)	40 (54.8)	151 (49.3)	280 (46.9)
Race (% Caucasian)	279 (96.2)	220 (94.4)	69 (94.5)	289 (94.4)	568 (95.3)
Child Insured	278 (95.5)	223 (95.7)	70 (95.9)	293 (95.8)	571 (95.6)
Medicaid	60 (25.1)	57 (24.5)	22 (30.1)	79 (30.9)	139 (28.1)
Appalachian Heritage	236 (86.4)	186 (79.8)	60 (82.2)	246 (85.7)	482 (86.1)
Mother Education					
No HS Degree	19 (6.5)	32 (13.7)	16 (21.9)	48 (15.7)	67 (11.2)
HS Degree/GED	158 (54.3)	137 (58.8)	40 (54.8)	177 (57.8)	335 (56.1)
Father Education					
No HS Degree	30 (10.3)	52 (22.3)	13 (17.8)	65 (21.3)	95 (15.9)
HS Degree/GED	198 (68.0)	146 (62.7)	49 (67.1)	195 (63.7)	393 (65.8)
Hollingshead (*M, SD*)[f]	31.25 (12.36)	28.26 (10.38)	26.47 (11.28)	27.84 (10.61)	29.50 (11.61)
Strata I	62 (21.3)	47 (20.2)	23 (31.5)	70 (22.9)	132 (22.1)
Strata II	89 (30.6)	98 (42.1)	24 (32.9)	122 (39.9)	211 (35.3)
Strata III	60 (20.6)	54 (23.2)	16 (21.9)	70 (22.9)	130 (21.8)
Strata IV	67 (23.0)	31 (13.3)	8 (11.0)	39 (12.7)	106 (17.8)
Strata V	13 (4.5)	3 (1.3)	2 (2.7)	5 (1.6)	18 (3.0)
TFI Less Than $20,000[f,g]	49 (17.1)	77 (33.0)	32 (43.9)	109 (37.4)	158 (27.3)
Parent IRS (*M, SD*)[f]	.19 (.65)	.57 (1.22)	1.08 (1.78)	.69 (1.39)	.45 (1.12)
Teacher IRS (*M, SD*)[f,h]	.36 (.89)	1.17 (1.64)*	2.88 (2.14)*	1.59 (1.92)*	1.00 (1.63)

Note: Hollingshead scores ranged from 6 to 62. Low Risk = identified by parent or teacher through Behavior Assessment System for Children, Second Edition (BASC–2); High Risk = identified by parent and teacher through BASC-2; Appalachian heritage = caregiver's report that they, their parents, or grandparents grew up in Appalachia (southeast Ohio, West Virginia, eastern Kentucky); HS = high school; I = unskilled laborers, menial service workers; II = machine operators, semiskilled workers; III = skilled craftsmen, clerical, sales workers; IV = medium business, minor professional, technical; V = major business and professional; TFI = Total Family Income; IRS = Impairment Rating Scale.

[a]$N = 291$.
[b]$N = 233$.
[c]$N = 73$.
[d]$N = 306$.
[e]$N = 597$.
[f]Denotes a significant group difference between on track and total at-risk ($p < .001$).
[g]Significant difference between low and high risk, $p < .05$.
[h]Significant difference between low and high risk ($p < .001$).
*Significant difference between parent and teacher ratings ($p < .001$).

risk'' (10%–25%; Appalachian Regional Commission, 2009). Given the statistics of the region, it was hypothesized that the proportion of at-risk kindergarteners would exceed national averages (15% at-risk students; Roberts, Attkisson, & Rosenblatt, 1998). We expected that medical doctors would be the primary service provider from whom families seek help (MacNaughton & Rodrigue, 2001). No hypotheses were made regarding the extent to which parents utilized informal help or which barriers would be primary.

METHOD

Participants

All parents of kindergarteners from 18 elementary schools in southeastern Ohio were invited to participate. The parents of 693 kindergarteners consented. The average response rate was 63% (range = 20%–90%), with 10 schools having 70% or higher. The final sample included 597 children (47% male; 95% Caucasian) along with their parents and teachers, as 96 children were not included due to either being beyond norms of the screening measure (5 years 11 months; $n = 76$) or had forms that were unable to be scored/interpreted ($n = 21$; see Table 1 for participant characteristics).

Measures

Parent demographic questionnaire. Parents provided information about several child and family characteristics. Socioeconomic status was quantified using Hollingshead (1975) calculations through coding parents' marital status, education level, and employment

information into a composite score that can be separated into five strata (see Table 1). Parent problem recognition was obtained by asking the dichotomous question, "Does your child have any problems you think he/she needs help with?" Informal and formal support were assessed by asking if (a) they had spoken to anyone regarding a concern for their child, (b) anyone was currently helping with the problem, and (c) their child had ever been evaluated for problems. Following a positive response to any of these questions, parents were instructed to circle from a list of those individuals or professionals from whom they received support.

Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004). Parent and teacher preschool versions (ages 2–5) were used to assess child emotional and behavioral functioning. Clinical (aggression, anxiety, attention problems, atypicality, depression, hyperactivity, somatization, withdrawal) and Adaptive Scales (adaptability, functional communication, social skills, activities of daily living) were used to assess at-risk status (see Table 2). Both versions have undergone rigorous psychometric evaluation with a large, nationally representative sample; reliability and validity statistics are acceptable (Reynolds & Kamphaus, 2004).

Impairment Rating Scale (Fabiano et al., 2006). This six-item measure assesses parent and teacher perceptions of child impairment across multiple domains, as well as overall impairment (only overall item used for this study). Informants place an "X" on a 7-point visual analogue scale to signify their perceptions of child functioning along a continuum of impairment that ranges from 0 (*not a problem at all/definitely does not need treatment or special services*) to 6 (*extreme problem/definitely needs treatment and special services*). Internal consistency for parent and teacher versions are above .94 (Fabiano et al., 2006); however, only the overall item was used for the current study, thus alphas were not calculated.

Barriers to Participation Scale (BTPS; Kazdin, Holland, Crowley, & Breton, 1997). Using a 5-point scale, ranging from 1 (*not at all*) to 5 (*a lot*), parents indicated how much they agreed with 44 statements related to participation in treatment. A total sum score as well as four subscales originally proposed by Kazdin were examined (Kazdin, Holland, Crowley, & Breton, 1997). Because the number of items differed for each subscale, mean item scores were calculated for each subscale. Higher scores indicate higher perceived barriers to mental health service use. The Cronbach alpha coefficient for the total scale for the current sample was .94 (scales = .74 – .88). At the item level, a barrier was considered endorsed if parents rated the occurrence "a fair amount" (4) or "a lot" (5). The BTPS was modified so that rather than assuming current treatment use, parents were asked to "imagine that you want to get mental health or counseling services for your child."

TABLE 2
Behavior Assessment System for Children, Second Edition, Means and Standard Deviations for On-Track and At-Risk Kindergarteners

	Parent On Track[a] *M (SD)*	*Parent At-Risk*[b] *M (SD)*	*Teacher On Track*[c] *M (SD)*	*Teacher At-Risk*[d] *M (SD)*
Hyperactivity	45.51 (6.68)	54.00 (10.37)	44.96 (4.98)	50.36 (10.52)
Aggression	45.21 (6.44)	51.55 (10.98)	45.04 (4.49)	49.39 (10.24)
Anxiety	49.99 (7.51)	57.00 (11.66)	43.40 (5.73)	49.46 (11.98)
Depression	45.93 (7.55)	54.57 (11.17)	42.94 (4.57)	48.00 (9.29)
Somatization	45.74 (7.16)	50.84 (10.17)	44.40 (6.11)	47.96 (9.58)
Atypicality	45.79 (6.08)	53.54 (11.37)	44.49 (2.92)	49.31 (9.64)
Withdrawal	46.24 (7.91)	51.94 (10.71)	41.45 (4.79)	46.18 (8.49)
Attention	46.92 (7.70)	54.14 (10.25)	43.82 (8.41)	50.41 (11.81)
Adaptability	55.14 (8.34)	47.29 (10.23)	59.27 (8.44)	53.34 (9.87)
Functional Communication	54.94 (7.37)	48.69 (10.44)	57.41 (8.55)	51.70 (10.28)
Social Skills	55.68 (7.83)	51.19 (10.20)	58.57 (11.28)	53.26 (11.75)
Activities of Daily Living	58.33 (7.33)	55.88 (9.25)	N/A	N/A

Note: Lower adaptive subscale scores (adaptability, functional communication, social skills, activities of daily living) indicate higher symptomatology; activities of daily living completed only by parents.

[a] $N = 291$.

[b] $N = 306$.

[c] $N = 291$.

[d] $N = 306$.

Procedures

Parents were consented during kindergarten registration and open house events and completed all questionnaires at that time. Parents were informed that the purpose of the study was to better understand how to identify children at-risk for academic, social, and behavioral difficulties. Completing measures took parents 15 to 20 minutes. Fliers were sent home for participants who did not attend (<1% of total sample). Teachers consented 8 to 12 weeks after the start of school to allow adequate time to become familiar with the children. Teachers completed a BASC-2 and Impairment Rating Scale for each consented student. Parents and teachers received $10 and $25, respectively, for their participation. All study procedures were approved through the university's Institutional Review Board.

RESULTS

Data Preparation

Parent and teacher BASC-2 scores were used to determine child risk status. Both parent and teacher BASC-2s were available for 97.5% of participants. BASC-2s were not scored unless all items were

TABLE 3
Help-Seeking Reported by Parents of Low, High, and Total At-Risk Kindergarteners

	Low Risk[a] *n (%)*	*High Risk*[b] *n (%)*	*Total At-Risk*[c] *n (%)*
Believed Child Had a Problem	73 (31.3)	27 (37.0)	100 (32.7)
Spoke to Someone About Concerns	83 (35.6)	24 (32.9)	107 (35.9)
Evaluated for Problems	46 (19.7)	12 (16.4)	58 (19.2)
Medical Doctor	17 (7.3)	9 (12.3)	26 (8.5)
Preschool/School Staff	14 (6.0)	2 (2.7)	16 (5.2)
Speech/Language Pathologist	15 (6.4)	0 (0.0)	15 (4.9)
Psychologist	7 (3.0)	3 (4.1)	10 (3.3)
Psychiatrist	5 (2.1)	2 (2.7)	7 (2.3)
Occupational Therapist	7 (3.0)	2 (2.7)	9 (2.9)
Physical Therapist	3 (1.3)	2 (2.7)	5 (1.6)
Social Worker	2 (0.9)	0 (0.0)	2 (0.7)
Pastor/Priest	0 (0.0)	1 (1.4)	1 (0.3)
Nurse	0 (0.0)	0 (0.0)	0 (0.0)
Identified for Special Education	10 (4.3)	4 (5.5)	14 (4.7)
Receiving Help	53 (22.7)	23 (31.3)	76 (26.4)
Informal Help	38 (71.7)	23 (43.4)	**56 (73.7)****
Spouse/Significant Other	32 (13.7)	14 (19.2)	46 (15.0)
Relatives	25 (10.7)	12 (16.4)	37 (12.1)
Friends	6 (2.6)	2 (2.7)	8 (2.6)
Babysitter	5 (2.1)	1 (1.4)	6 (2.0)
Pastor/Priest	2 (0.9)	1 (1.4)	3 (1.0)
Sunday School Teacher	2 (0.9)	2 (2.7)	3 (1.0)
Activity Leader (Scouts, Coach)	2 (0.9)	0 (0.0)	2 (0.7)
Professional Help	18 (78.3)	12 (52.2)	**35 (46.1)**
Medical Doctors	10 (4.3)	7 (9.6)	17 (5.6)
Preschool/School Staff	8 (3.4)	2 (2.7)	10 (3.3)
Psychiatrists	7 (3.0)	2 (2.7)	9 (2.9)
Speech/Language Pathologist	5 (2.1)	3 (4.1)	8 (2.6)
Psychologists	3 (1.3)	2 (2.7)	5 (1.6)
Physical Therapist	0 (0.0)	3 (4.1)	3 (1.0)
Social Workers	1 (0.4)	0 (0.0)	1 (0.3)
Nurse	0 (0.0)	0 (0.0)	0 (0.0)

Note. Parents could endorse more than one option within each category, thus percentages do not total to 100%. Low Risk = identified by parent or teacher through Behavior Assessment System for Children, Second Edition (BASC-2); High Risk = identified by parent and teacher through BASC-2.

[a]$N = 233$.

[b]$N = 73$.

[c]$N = 306$.

**Significant difference between informal and professional help for total risk children, $p < .001$ (boldface text).

TABLE 4
Perceived Barriers Among Parents of Low, High, and Total At-Risk Kindergarteners

	Low Risk[a] *M (SD)*	*High Risk*[b] *M (SD)*	*Total At-Risk*[c] *M (SD)*
BTPS Total	68.38 (21.13)	68.12 (22.47)	68.32 (21.42)
Relevance	1.75 (.60)	1.66 (.60)	1.73 (.60)[d]
Demands/Issues	1.66 (.61)	1.64 (.62)	1.66 (.61)[e]
Relationship	1.53 (.59)	1.57 (.69)	1.54 (.61)[f]
Stress/Obstacles	1.43 (.45)	1.45 (.49)	1.43 (.46)[g]
Total No. of Barriers	2.12 (3.07)	1.62 (2.56)	2.00 (2.96)
1 or More Barriers, *N* (%)	145 (62.2)	43 (58.9)	188 (61.4)
2 or More Barriers, *N* (%)	101 (43.5)	22 (30.1)	123 (40.3)

Note: Mean item scores for subscales with different superscripts ([d] through [g]) are significantly different from each other (p value adjusted [.05/4] = .01; all $ps < .001$). Barriers to Participation Scale (BTPS) scores ranged from 44 to 147. Barrier endorsed if parent indicated occurred either "a fair amount" or "a lot."

Low Risk = identified by parent or teacher through Behavior Assessment System for Children, Second Edition (BASC-2); High Risk = identified by parent and teacher through BASC-2.

[a] $N = 233$.

[b] $N = 73$.

[c] $N = 306$.

completed. Means were imputed based on individual participant data for any blank items on other measures (<1% of cases). A child was "at risk" if a *T* score of 65 or greater on any clinical scale or 35 or lower on any adaptive scale on parent or teacher BASC-2 was received. This "Or" rule was utilized because the goal was to screen and identify children at-risk for a mental health problem. However, a conservative cutoff of 1.5 standard deviations from the mean was utilized to reduce the likelihood of false positives (i.e., BASC-2 classifies children 1–1.5 *SD* from the mean as "at risk"). Children were grouped into three categories: "high risk" (identified by both parent and teacher), "low risk" (identified by only one rater), and "on track" (not identified by parent or teacher).

Profile of At-Risk Children

Of the 306 children (51.3%) identified as at-risk, 233 were low risk (70.0% identified by parent BASC-2; 30.0% identified by teacher BASC-2) and 73 children were high risk. Chi-square tests indicated that on-track and at-risk children (low and high risk combined) did not differ on any of the characteristics involving child and parent demographics and parent education (see Table 1). However, independent samples *t* tests indicated that children in the total at-risk group had significantly lower average family socioeconomic status and significantly more severe parent and teacher impairment ratings than on-track children (all $ps < .001$; see Table 1). Chi-square and *t* tests revealed children in the low and high risk groups did not differ on any characteristics in Table 1, except for parent ($p = .023$) and teacher ($p = .000$) impairment. This was expected and validates that the BASC-2 differentiates between low and high risk.

Parent Reported Problem Recognition and Help-Seeking Behaviors

Nonsignificant chi-square tests indicated that low risk (L) and high risk (H) groups did not differ on the following help-seeking behaviors: believed child had a problem (L = 31.3%; H = 37.0%), spoke with someone regarding concerns for child (L = 35.6%; H = 32.9%), obtained an evaluation (L = 19.7%; H = 16.4%), had a child identified for special education (L = 4.3%; H = 5.5%), and received help (L = 22.7%; H = 31.3%; see Table 3). Given no group differences, informal and professional help were examined within the total risk group. McNemar chi-square analyses revealed that of parents who reported help, significantly more informal (73.7%) than professional sources of help (46.1%), $\chi^2(1, N = 75) = 8.48$, $p = .004$, were utilized (see Table 3). Medical doctors (5.6%) and school staff (3.3%) were the most frequently reported professional evaluators and sources of help, whereas spouses/significant others (15.0%) and relatives (12.1%) were most common among informal sources.

Perceived Barriers to Mental Health Service Utilization

Independent samples *t* tests revealed no significant differences across low and high risk groups on the total and subscale BTPS scores. Therefore, parents' endorsement of barriers across subscales was examined using a one-way repeated measures analyses of variance. The omnibus test was significant, $F(3, 302) = 59.23$, $p < .001$. Contrasts revealed all subscales were significantly different from one another (all $ps < .001$) with the Relevance subscale demonstrating the highest mean

item score (see Table 4). The mean number of barriers endorsed and percentage that endorsed one or more and two or more barriers were calculated (see Table 4). Item analysis revealed the two most frequently endorsed barriers were "Treatment would cost too much" (14.7%) and "Treatment is not necessary" (12.5%).

DISCUSSION

Previous help-seeking and barriers research has primarily targeted metropolitan caregivers who have already recognized a problem and are already participating in mental health services. Furthermore, studies examining barriers in rural communities have included samples smaller than 30. The present study uniquely provides a profile of parent help-seeking and perceived barriers among a large sample in rural communities and included parents who varied on problem recognition and service use. Our results demonstrate that unmet mental health needs in rural communities are substantial and that there is a critical need for early identification and parent education and engagement to reduce barriers to mental health service utilization.

Demographic Profile of At-Risk Children

As expected, the percentage of children (51%) identified as at-risk exceeded national rates, despite using a conservative *T*-score cutoff. Although it is possible that this could be explained by the fact that any one scale of the BASC-2 by any rater led to risk status, it is important to consider alternative explanations. First, statistics citing that 10% to 20% of youth meet diagnostic criteria for a mental health disorder (Kazak et al., 2010) provide a conservative estimate of need for services (Kazdin & Weisz, 2003), as many children's problems go undetected and others experience significant impairment but do not meet full diagnostic criteria. Second, high *T* scores on some BASC-2 scales may indicate other problems, aside from mental health challenges, that still require evaluation such as speech or health problems and genetic disorders. Third, socioeconomic status is a strong predictor of mental health problems (National Research Council and Institute of Medicine, 2009) and the majority of families in this sample were characterized as low socioeconomic status. These reasons, as well as the group differences on the Impairment Rating Scale, provide validity for the screening and the high percentage of children identified.

Parent and teacher ratings agreed on at-risk status for only 24% of at-risk children. This is consistent with research indicating low levels of agreement between parent and teacher report (Achenbach, McConaughy, & Howell, 1987) and may be due to differences in child behavior and/or adult expectations across settings, particularly at this developmental period when increased child socialization skills within formal settings are newly emerging. Parent ratings identified more children than teacher ratings; however, teachers viewed at-risk children as significantly more impaired than parents regardless of low or high risk status. These higher endorsement rates by parents relative to teachers may reflect the parent's more intimate knowledge of their child at this stage of development and/or the fact that parents do not have the opportunity to compare to hundreds of same-age peers. However, teachers are likely better able to evaluate the degree to which behaviors are impairing because they can compare across same-age peers and observe the child in both structured and unstructured settings and among demanding academic and social tasks. Nevertheless, identification by either parent or teacher is important as it provides the opportunity for early communication and monitoring by professionals.

Parent Reported Help-Seeking Behaviors

Among the total at-risk sample, only 19% had been previously evaluated and 26% were receiving help. These results are consistent with other studies of unmet mental health needs in children (e.g., Leaf et al., 1996). These low rates of help-seeking may be attributed to the timing of measurement and the child's stage of development. Namely, because the teacher reports were completed early in the school year, there may have been limited opportunities for teachers to share concerns with parents. In addition, even if parents had been informed of a problem, they may have been hesitant to believe the report and/or to seek help. Finally, it is possible that parents and teachers were adopting a "wait and see" approach to determine if maturation produced normative behavior. Surprisingly, there were no differences in any type of help-seeking between parents of low and high risk children, suggesting that greater severity may not move parents to action at this stage of development.

Furthermore, regardless of risk status, parents who reported seeking help were more likely to have pursued informal help (e.g., family member, pastor) rather than formal help (e.g., a medical doctor, psychologist). This is consistent with previous studies showing that that prior to coming to a mental health clinic, 40% spoke to friends and 30% spoke to someone at church (Harrison et al., 2004), as well as with help-seeking models that suggest that informal support systems play a significant role in the initial processes of help-seeking (Srebnik et al., 1996). Thus, future research should examine the utility of incorporating informal support systems in parent engagement interventions, as they

may serve as a catalyst toward increased service use (Hoagwood et al., 2008).

Last, as expected, those who did seek formal help were most likely to seek help from medical doctors. Overall, our data show that individuals in the medical and education disciplines are in the "front lines" of communication with parents regarding child problems, and this has critical implications for increasing parent help-seeking. Given the evidence that medical professionals can be trained to implement interventions to reduce barriers and increase mental health service use (Kolko, Campo, Kelleher, & Cheng, 2010), future research should explore training school staff to conduct sustainable mental health screenings and to reduce barriers to service utilization by engaging parents in help-seeking following screenings. School-based mental health programming has led to increased access to services (e.g., Weist, Myers, Hastings, Ghuman, & Han, 1999); specifically, there is an increase in state policy support (e.g., New York) and school programs such as Teen Screen. However, evidence suggests that one third of parents do not follow through after receiving a referral (Kataoka, Stein, Nadeem, & Wong, 2007). Thus, despite the promise of kindergarten screening, future research should determine how to increase parent engagement (Ingoldsby, 2010) and help-seeking following school screenings.

Perceived Barriers to Mental Health Service Utilization

This study uniquely examined perceived barriers of families who may not yet recognize a problem and/or have not yet decided to seek services. Average BTPS scores for parents of at-risk children in this study ($M = 68.32$, $SD = 21.42$) can be directly compared to BTPS scores of treatment completers ($M = 61.76$, $SD = 12.00$) and terminators ($M = 73.19$, $SD = 14.27$) in a study among parents who initiated treatment at an outpatient clinic (Kazdin, Holland, & Crowley, 1997). Kazdin's participants had a specific focus of parent training for youth with externalizing disorders as compared to the broad problems among the current sample; however, the aforementioned comparison is important and supports the need to reduce barriers among low-income parents. Specifically, parent-reported barriers in this study were, on average, higher than treatment completers in previous research.

Of interest, barriers did not differ between parents of low and high risk children. Among families of at-risk children, most (61%) experienced at least one barrier, and a sizeable proportion (40%) experienced two or more. Thus, given that barriers are more common than rare, professionals should expect barriers will arise and if left unaddressed may play a substantial, negative role in impeding the progress of many families. The Relevance subscale received the highest mean item score on the BTPS. Barriers within this category are associated with treatment relevance and parent expectations for treatment. Given that many parents did not recognize or report a problem, it is not surprising that they viewed treatment as irrelevant and were unsure of what to expect. This has valuable implications for interventions that address these issues with parents following a positive screen.

Indeed, only 33% of parents with an at-risk kindergartener recognized or reported a problem. These findings suggest that psychoeducation surrounding childhood mental health issues and their persistence across time will be an important aspect of communicating screening results to parents. Importantly, research suggests that problem recognition and psychoeducation alone are not sufficient for moving parents to seek help. This is supported by another study that found 66% of parents believed no services were needed, despite their having recognized a problem (Bussing, Zima, Gary, & Garvan, 2003). This may be because parents often view mental health challenges as a phase that will pass (Finkelhor, Wolak, & Berliner, 2001). Mechanisms to address this barrier, as well as other barriers, are sorely needed.

STRENGTHS, LIMITATIONS, AND IMPLICATIONS

This study has several strengths, including the assessment of children at kindergarten entry, the inclusion of participants who have not yet sought treatment services and who varied in problem recognition and stage of help-seeking, and the use of a large rural sample. However, our conclusions must be considered in light of limitations. Although many children were screened through kindergarten registration (a required event), some schools offered our screening at open houses, which are optional, thereby limiting participation to those who attended. This variability in recruitment strategies as well as our sample of families from a range of nonmetropolitan regions may limit the generalizability of the findings. Second, a single item yes/no question was used to assess whether parents believed that their child had a problem (i.e., problem recognition). Future research should include a more thorough assessment of the problem recognition construct. However, it is important to note that our results using a single-item problem recognition question are highly consistent with results from another rural study in which only 39% of parents perceived a problem even though the child met diagnostic criteria for a mental health disorder (Teagle, 2002). Third, the barriers measures were adjusted to fit

the needs of this study so that parents were not being asked about perceived barriers to treatment but rather barriers to obtaining services. Researchers must develop reliable and valid measures for assessing perceived barriers at early stages of help-seeking. Lastly, our study does not include an understanding of the variability in access to professionals and services across communities and how these contextual variations may influence parent help-seeking.

This study showed that for kindergarten children identified through a school-based screening as at risk for emotional, social, behavioral, and adaptive problems, there were low rates of problem recognition and help-seeking and high rates of perceived barriers among parents. This provides compelling evidence for early school-based mental health screening at kindergarten entry that includes both parents and teachers, as each provides a unique perspective at this point in development. Future studies should continue to examine this mechanism for identifying children through collaboration with schools, as meta-analysis of psychosocial interventions showed that problems addressed earlier in childhood may lead to more successful outcomes than when left to progress years later (Weisz, Weiss, Alicke, & Klotz, 1987). Future research should also be devoted to developing and evaluating interventions within the schools to increase problem recognition through parent education about their child's at-risk status and engage parents early to reduce barriers and increase service utilization.

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