Evaluating Outpatient Pediatric Psychology Services in a Primary Care Setting

Amanda B. Sobel,¹ MA, Michael C. Roberts,¹ PhD, ABPP, Arista D. Rayfield,² PhD, Martha U. Barnard,² PhD, and Michael A. Rapoff,² PhD
¹University of Kansas and ²University of Kansas Medical Center

Objective: To provide descriptive and outcome information of an outpatient pediatric psychology clinic based in a medical center in a major metropolitan area.

Methods: We coded the characteristics and outcomes of 100 patients prospectively on a number of dimensions. Surveys and interviews were used to gather follow-up information.

Results: The majority of patients were Caucasian boys (n = 56 out of 100) between 2 and 12 years of age. The most common reasons for initiating contact with the clinic were assessment of school problems, behavior problems, anger, attention problems, depression, and temper tantrums. Eighty-one percent of the patients saw a therapist for brief treatment, between one and five sessions, and behavioral treatments were administered for the majority. The children’s behavior for which the parents sought treatment improved significantly from pre- to posttreatment, as rated by parents and therapists.

Conclusions: Overall, parents were satisfied with the services received and indicated that the recommendations given during therapy were helpful and easy to implement. This study provides general evidence for the effectiveness of pediatric psychology services.

Key words: mental health services research; primary care; behavioral problems; brief treatment; outpatient.

Over the history of pediatric psychology, a few reports have presented the practice patterns of inpatient and outpatient activities in pediatric and pediatric primary care settings through both narrative and data-based descriptions. The data-based descriptions have covered the range of pediatric psychology activities such as providing (1) psychosocial services for problems related to pediatric health conditions (e.g., adjustment to a disease diagnosis, adherence to treatment regimens); (2) psychological interventions for mental health problems appearing in medical units, sometimes as a byproduct of condition or treatment (e.g., negative behaviors resulting from extended hospitalization); and (3) general mental health services for behavior problems referred to and within pediatric settings, but not necessarily related to pediatric health conditions. For the former two activities, the services are often provided through inpatient consultation or outpatient follow-up (e.g., Olson et al., 1988; Rodrigue et al., 1995; Singer & Drotar, 1989). In the third service activity, the primary care setting of pediatrics is often the first place parents seek professional assistance (Lavigne et al., 1999; Roberts & Wright, 1982). Thus, as envisioned by Wright (1967) in his role model article, the psychologist in

All correspondence should be sent to Michael C. Roberts, Clinical Child Psychology Program, 2006 Dole Human Development Center, 1000 Sunnyside Ave., University of Kansas, Lawrence, Kansas 66045-5777. E-mail: mroberts@ku.edu.

© 2001 Society of Pediatric Psychology
the pediatric setting may treat as many patients who are physically healthy with behavior problems as those with physical health problems. This aspect of pediatric psychology has been demonstrated in several empirical descriptions (Sobel, Roberts, Rapoff, & Barnard, 2001; Walker, 1979). For example, Ottinger and Roberts (1980) determined that most referrals to a pediatric psychology service in a pediatrician’s clinic and medical hospital were for negative behaviors and toileting. Schroeder, Gordon, Kanoy, and Routh (1983) found that, in her private primary care setting in a pediatrics clinic, patients were seen for the same category of problems as might be seen in a traditional guidance clinic (negative behaviors, school problems) and to a lesser degree for pediatric and medically related problems (Kanoy & Schroeder, 1985). These reports of descriptive studies have been important in delineating some aspects of clinical practices. Evaluating treatment outcomes within pediatric psychology clinics is now an even greater focus of research.

Studying outcomes is critical to a successful clinical practice. Purchasers, managed care providers, and consumers are now being asked to assess the effectiveness of a managed care plan or provider (Lambert, Salzer, & Bickman, 1998). Information on outcomes can also be used to improve the services provided to children and families. Finally, the field of pediatric psychology has recognized the limited research on effectiveness of interventions and endorsed the statement that pediatric psychology should conduct outcomes-based research, including investigations providing empirical support for treatment interventions (Brown & Roberts, 2000). Similarly, despite the many research publications over time in this specialty, La Greca (1997) and La Greca and Varni (1993) have called for more studies documenting the effectiveness of clinical interventions in pediatric psychology.

Clinical outcomes can be measured by psychologists in several ways: consumer satisfaction, referral source satisfaction, treatment outcome as rated by consumers, therapeutic change ratings by therapists and parents, and objective rating scales. Most health maintenance organizations (HMOs) target consumer satisfaction in assessing outcomes because this is considered an inexpensive way to measure therapeutic effects and because “satisfied” consumers more often re-enroll with the health plan. Therefore, the collection of satisfaction data has become a high priority among mental health providers and insurance companies (Bilbrey & Bilbrey, 1995).

Referral source satisfaction provides outcome information by asking the source of the referral to evaluate satisfaction and the clinic’s effectiveness (Rodrique et al., 1995). Treatment effectiveness can also be measured by therapist ratings of degree in symptom change during and after therapy. For example, Plante, Couchman, and Hoffman (1998) administered rating scales before and after treatment to assess a therapist’s perceptions of the general psychiatric symptoms and client cooperation, clinician satisfaction, and treatment success with moderate levels of positive effects reported. Finally, other behavioral ratings can enhance the evidence for the effectiveness of an intervention. For instance, one study found that parent outcome and behavior checklist ratings indicated an improvement or resolution of the problem behaviors for the majority of the children receiving psychological services, a high satisfaction with services received, and a reduction in medical services during the year after psychological services (Finney, Riley, & Cataldo, 1991).

Only a few studies have prospectively evaluated the services provided to children and families in a pediatric primary care setting, whereas more and more psychologists are establishing clinical practices with pediatric and other primary health care groups (Roberts & Hurley, 1997). Therefore, the primary care setting, where the majority of children receive medical care, is an important place for pediatric psychology services to take place and for evaluation research to be conducted (Lavigne et al., 1999; Stancin, 1999). In addition, those investigations conducted prospectively assessed only a few outcome variables at a time, such as consumer satisfaction and a rating scale, not a full range of possible measures. For example, Lambert et al. (1998) found that measuring consumer satisfaction alone was not sufficient in determining treatment outcome. Parents reported high rate of satisfaction with the services, which did not correlate with changes in psychopathology in their children (Lambert et al., 1998). Using multiple measures to determine the effectiveness of an outpatient pediatric psychology clinic and the outcome of children and families is essential to understanding all aspects of care. Therefore, it is important to utilize multiple methods to determine the effectiveness in practice of a service unit for children and families. This study prospectively measured different aspects of treatment outcomes and satisfaction by using rating scales and questionnaires. The purposes of this study are to (1) prospectively enroll patients and families in an
evaluation research project, (2) gather information on patient characteristics, functioning, and perceptions of treatment by parents and referral sources over time, and (3) demonstrate a readily implementable possible methodology for evaluating effectiveness in practice settings. Based on a retrospective file analysis (Sobel et al., 2001), we expected in this prospective study that the treatment outcomes would be positive and satisfaction would be generally positive from consumers and referral sources. The pediatric psychology clinic under study here has been devoted to behavioral pediatrics for three decades (Christophersen, 1982; Christophersen & Rainey, 1976). In many ways, this clinic, integrated within a general pediatrics clinic setting, is not dissimilar to the pediatric office practice model of Schroeder (1996), Evers-Szostak (1997), and Ottinger and Roberts (1980). Another activity of the psychologists in this particular unit is consultation and liaison services for the inpatient units of the surrounding medical center, but this was not the focus of the study.

Method

Participants

The sample for this study consisted of all parents and their children (ages 1 to 19 years) who were outpatients at two pediatric primary care settings, at a separate unit associated with a midwestern university medical center, and a community-based pediatricians’ office, from September 1998 through October 1999. There were four licensed psychologists participating in this study who had been practicing for a range of 5 to 20 years in a pediatric psychology setting with backgrounds in developmental and child psychology and clinical child psychology providing services at the time of the study. The clinic is part of the pediatric outpatient service in a separate building within the medical center, and all pediatric and pediatric psychology patients check in at the same front desk. Billing is an integrated system. Coordination of health and mental health visits could be made. The psychologists’ therapy rooms are in the medical exam rooms, making contact and collaboration easily accessible. One hundred children and adolescent cases were enrolled prospectively as they registered in the clinic (one other family refused to participate in the study due to time constraints based on the additional time to explain and sign the consent form and then complete the symptom severity scale). The sample consisted of 44 girls (44%) and 56 boys (56%) ranging from 1 year to 19 years of age ($M = 8.28$, $SD = 4.29$). Age was further divided into the following categories: less than 2 years (2%), 2 to 5 years (28%), 6 to 9 years (35%), 10 to 12 years (15%), 13 to 15 years (12%), 16 to 18 years (7%), and 19 to 21 years (1%). The majority of participants were identified as Caucasian (73%); others were African American (14%), Hispanic (5%), biracial or other (5%), and 3% did not complete information indicating racial identification. Less than half of the parents in this study were married (40%), 24% were divorced, 12% were single, 5% were widowed, 3% remarried, and 3% were separated at the initial appointment with the clinic. Marital status was left blank on the intake form by 12% of the parents. Thirty-five percent of the sample presented with private insurance, 24% Medicaid, 12% Blue Cross/Blue Shield, and 3% HMO. Twenty-six percent of the sample did not provide insurance information or were without insurance at their initial visit. Finally, most participants were residents in the state or from the adjoining state’s metropolitan areas.

Dependent Measures

Information was collected on the families in the following variables.

Patient Information. We obtained demographic and clinic information from the patients’ files. The investigator recorded such characteristics as the patient’s gender, age, race, presenting complaints, parents’ marital status or residence, parents’ education levels, parents’ insurance, and name of the therapist who treated the patient. Consistent with the standard practice of the clinic, upon receipt of a referral or contact, parents were mailed an intake form, the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) and the Parenting Stress Index-Short Form (PSI/SF; Abidin, 1995), to be completed before their initial appointment. Parents also completed a symptom severity scale based on items and concepts contained in the Global Assessment of Functioning (GAF) scale (Luborsky, 1962) for their child. Adequate reliability and validity have been established (Jones, Thornicroft, Coffey, & Dunn, 1995). The symptom severity scale, which considers psychological, social, and occupational functioning, was modified from the GAF scale’s 10-point rating scale to a 5-point scale to ease the administration
of the scale and lessen the complexity for parents. Parents and therapists did not know each other’s ratings on the symptom severity scale of the child and did not have access to the data throughout therapy. In addition, parents and therapists were not made aware of their individual ratings on the questionnaires and rating scales after treatment was terminated.

Therapist Information. The therapist’s diagnosis and treatment approach for the patient were recorded from the case notes and documentation in the patient’s file. The type of treatment approach, such as bibliotherapy, “chip system,” behavior therapy, parent training, and so forth was coded from the therapist’s case notes. Therapists also completed the modified GAF Scale identical to the parents’ form.

Referral Information. The researcher recorded referral information, including the type of agency or unit from the patient’s files. After the referral source was identified, a referral satisfaction questionnaire was sent to the source after 6 weeks of the initial appointment. The form asked if the referral source was satisfied with the services that the child received, if they would refer to the clinic in the future, and if the needs of the family were met.

Procedure

The participants were recruited for participation at their first appointment with the clinic and signed consent forms. No qualifications for inclusion or exclusion in the study were required. This project had been reviewed and approved by the institutional review boards of the medical center and the university. An undergraduate research assistant was trained and served as the reliability checker on 25% of the cases.

Termination of treatment was determined to be 6 weeks after the last treatment session scheduled by the patient. Parents were contacted by phone to answer questions concerning consumer satisfaction, treatment outcome, treatment satisfaction, and the same symptom severity scale completed at the initial visit. Questionnaires completed by parents asked about how the child was functioning currently, why the parents had terminated treatment with the clinic, if the family was satisfied with the services they received, and if the recommendations were easy to implement in the home or at school. Parents were also mailed the ECBI and the PSI/SF to be returned to the researcher in a self-addressed stamped envelope.

Results

Data Analyses

First, descriptive statistics provide a summary on all major parameters codified in order to describe the nature of practice in this setting. Second, paired t tests among variables were analyzed to determine their relationship to each other to determine different treatment outcomes.

Reliability

The independent reliability coder examined a randomly selected subset of files coded by the primary coder. Kendall’s tau-b correlations for the two coders were calculated for seven of the categories contained in the coding sheets. The reliability categories included gender, diagnosis, treatment type, presenting problems, dates of initial appointment, last appointment in the clinic, and number of sessions. Overall, the interrater reliability across categories averaged .92. The following analyses are based on the data coded by the primary coder (ABS).

Referral and Consultation Information

Patients were referred to the clinic by an identified source in 90% (90 patients) of the files. For the remaining 10% of the patients, referral source was unknown. Of those referred, 48% of the consultation requests came from health professionals affiliated within the medical center and 52% of the consultation requests came from outside health professionals.

The majority of patients had no previous diagnosis (64%) before coming to the clinic and had not received any prior psychological treatment (85%). Primary problem was defined as the parents’ stated reason for initiating the consultation; a secondary problem was recorded if the parents or referral source identified multiple problems/complaints. The most common reasons for referring children or initiating contact with the pediatric psychology clinic were the assessment of school problems, behavior problems, anger, attention, depression, and temper tantrums. The 31 reasons for referral were summarized into six categories. Forty-five percent of the presenting complaints were classified as externalizing problems, 23% internalizing problems, 15% education-related problems, 7% adjustment problems, 4% diagnosis for medical or psychological problem, 4% habit disorders, and 3% medical
Developmental/learning problems

Internalizing

Adjustment reactions

The total number of diagnoses given exceeds 100 because more than one diagnosis could be given to each patient.

Externalizing disorder, attention deficit hyperactivity disorder-combined type, attention deficit hyperactivity disorder-inattentive type, oppositional defiant disorder, intermittent explosive disorder, disruptive behavioral disorder, conduct disorder.

Adjustment reaction disorder.

Depression, dysthymia, anxiety disorder, posttraumatic stress disorder, somatoform disorder, somatization disorder, eating disorder not otherwise specified, bulimia, psychological factors affecting medical condition, PKU, rumination syndrome, diabetes, pica, anorexia.

Enuresis, encopresis, Tourette's syndrome.

Table 1. Categories of Diagnoses (n and %)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>n (% )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing disorder</td>
<td>77 (58.3)</td>
</tr>
<tr>
<td>Adjustment reaction disorder</td>
<td>19 (14.4)</td>
</tr>
<tr>
<td>Internalizing disorder</td>
<td>16 (12.1)</td>
</tr>
<tr>
<td>Developmental/learning problems</td>
<td>8 (6.1)</td>
</tr>
<tr>
<td>Medical problems</td>
<td>7 (5.3)</td>
</tr>
<tr>
<td>Habit disorder</td>
<td>5 (3.8)</td>
</tr>
</tbody>
</table>

The majority of patient diagnoses made by the pediatric psychologists were oppositional defiant disorder (22%), attention deficit hyperactivity disorder (22%), and adjustment reaction disorder (14.4%). The formal diagnoses of the 100 patients were then divided into six categories: externalizing disorders, internalizing disorders, medical problems, developmental/learning problems, habit disorder, and adjustment reaction disorder. Table I presents the definitions and diagnoses for the patients within these six categories. Most of the patients were diagnosed with an externalizing disorder.

Treatment Information

The number of sessions ranged from 1 to 14 sessions with a therapist (M = 3.56, SD = 2.99). The modal of the sample was one session. The majority of patients saw a psychologist between one and five times (81%), with only four patients seeing a therapist more than 10 times (4.0%). In the type of treatment category, over all cases, the therapists provided individual therapy for the children or parents 66% of the time, family therapy 21%, and both individual and family therapy 13% of the time.

Seventy-nine percent of the patients were treated with behavioral techniques, cognitive-behavioral methods accounted for 10.5%, supportive counseling techniques accounted for 8%, and physical techniques (i.e., diet, exercise) accounted for 2.5%. These behavioral treatments consisted of bibliotherapy, parent training related to time in/time out procedures, behavior management, toilet training, token economy, contingency contracting, differential reinforcement, grounding, habit reversal, and behavioral contracts. Cognitive-behavioral treatments included relaxation, social skills training, self-monitoring, problem solving, and exposure. Almost half of the children receiving treatment from the clinic (44%) were taking medication related to their psychological diagnoses. Other professionals were involved in 52% of the cases of children seeking treatment, including teachers, physicians, mental health professionals, counselors, and nurses.

The patients’ parents were contacted by phone and asked why they had chosen to discontinue treatment with the clinic for a 92% completion rate. Twenty-four of the 92 parents contacted (26.1%) reported that they discontinued treatment because they had completed treatment with the clinic, 15 parents (16.3%) stated they did not discontinue and planned to return, 12 parents (13%) stated cost/insurance problems, 9 parents (9.8%) stated their child or the parents decided not to seek recommended treatment. In addition, patients’ parents who only solicited contact with the clinic one time were analyzed separately. Five of the 27 parents (18.5%) indicated that they discontinued treatment because they requested a consult, five parents (14.8%) stated their child or the parents decided not to seek recommended treatment, four parents stated they had plans to return, four parents (14.8%) were not able to be contacted, and three parents (11.1%) indicated scheduling problems. The remaining 6 parents out of 27 (22.2%) indicated that they discontinued treatment because of traveling distance, cost/insurance problems, patient improvement, or seeing another health professional.

Outcome Measures

Treatment Satisfaction. Parents were also asked to indicate if they were satisfied with the treatment recommendations. On a scale from 1 (useless) to 5 (useful), the majority of the respondents (71%, n =
79) reported that the treatment recommendations by the therapist were “very useful” in managing the behavior of their child. On a scale from 1 (impossible to implement) to 5 (easy to implement), the majority of the respondents (75.9%, n = 79) indicated that the treatment recommendations were “easy to implement” at home or in the school (M = 3.73, SD = .50). Thirteen of the 92 respondents reported that they were not given any recommendations by the therapist and, therefore, could not answer the question regarding ease of recommendations.

Referral Source Satisfaction Questionnaire. Ninety percent of the sample reported a referral source. Thirty-one of the mailed questionnaires were returned by those named referral sources for a 37% return rate. On a scale from 1 (very dissatisfied) to 5 (very satisfied), all of the 14 respondents who were able to evaluate the clinic, reported being very satisfied (71.4%) or satisfied (28.6%) with the psychological services that the patient(s) received from the clinic (M = 4.71, SD = .47). On a scale of 1 (almost all were met) to 5 (none were met), 12 respondents felt that the clinic met most of the needs (50%) or almost all of the needs (50%) of their patient(s) and the patients’ parents (M = 4.50, SD = .52). On a scale of 1 (excellent) to 5 (very poor), the majority of respondents’ overall rating of the pediatric psychology clinic was excellent (72.2%) or good (11.1%) (M = 4.44, SD = 1.10). Approximately half of the replying referral sources stated they could not evaluate the clinic and responded to the questions with “I don’t know.”

Consumer Satisfaction. Six weeks after treatment was terminated, the parents were contacted by phone concerning their satisfaction with the services they received from the clinic. On a scale from 1 (very dissatisfied) to 5 (very satisfied), the majority of the 92 respondents reported being either very satisfied (60.9%) or satisfied (33.7%) with the psychological services provided by the pediatric psychology clinic (M = 4.52, SD = .72).

Treatment Outcome: Parent Measures. Forty-eight percent (n = 44) of parents reported that their child’s behavior was much better since therapy began, 34% (n = 31) reported their child’s behavior was a little better, 16% (n = 15) reported that their child’s behavior stayed the same, and 2% (n = 2) reported that their child’s behavior had gotten a little worse.

Eighty parents completed the symptom severity scale at the initial session. On a scale from 1 (absent or minimal symptoms, good functioning in all areas, no more than everyday problems and concerns) to 5 (some danger to hurting self or others, occasionally fails to maintain minimal personal hygiene, or gross impairment in communication), the majority of parents indicated their child presented with mild to moderate difficulty in school, occupational, or social functioning symptoms (63.8%) upon initial appointment with the clinic (M = 2.75, SD = 1.08; see Tables II and III). Six weeks after termination with the clinic, parents again completed the symptom severity scale for a 92% completion rate. The majority of parents indicated their children presented with absent to mild difficulty in school, occupational, or social functioning symptoms (78.2%) 6 weeks after treatment was terminated with the clinic (M = 2.00, SD = 1.08; see Tables II and III). Seventy-nine parent GAF symptom severity scales were matched pre- and posttreatment to assess if their child’s behavior had improved significantly on this scale. From pre- to posttreatment, children demonstrated a significant decrease in symptoms (M = 2.00, SD = .86, matched t [78] = −5.085, p ≤ .01). Parents’ indicated, on a 5-point scale from 1 (much worse) to 5 (much better), that their children were functioning much better at home and at school as compared to pretreatment (M = 4.27, SD = .81). Thus, the symptom severity scale as completed by the parents indicated significant levels of improvement.

Parents were also asked to complete two questionnaires, the ECBI and the PSI/SF. Both measures were administered pre- and posttreatment. Twenty-one parents completed the ECBI 6 weeks after their last appointment. Of those reports matched pre- and posttreatment, there was a significant difference between the behaviors presented as a significant problem for the parents before treatment and since therapy ended (M = −5.13, SD = 7.75, t[15] = −2.644, p ≤ .05; see Table III). There were no differ-

### Table II. Parent and Therapist Ratings of Symptom Severity Pre- and Posttreatment

<table>
<thead>
<tr>
<th></th>
<th>Parent</th>
<th>Therapist</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre n (%)</td>
<td>Post n (%)</td>
</tr>
<tr>
<td>Absent or minimal</td>
<td>11 (13.8)</td>
<td>27 (29.3)</td>
</tr>
<tr>
<td>Mild symptoms</td>
<td>21 (26.3)</td>
<td>45 (48.9)</td>
</tr>
<tr>
<td>Moderate symptoms</td>
<td>30 (37.5)</td>
<td>12 (13.0)</td>
</tr>
<tr>
<td>Serious symptoms</td>
<td>13 (16.3)</td>
<td>7 (7.6)</td>
</tr>
<tr>
<td>Danger to self/others</td>
<td>5 (6.3)</td>
<td>1 (1.1)</td>
</tr>
</tbody>
</table>
matched and compared at intake and compared 6 weeks after the last therapy session with regard to symptom severity. Parents and therapists agreed that the child significantly improved since treatment began and there was no significant difference found between parents and therapists’ symptom severity ratings at the beginning of treatment (M = 2.98, SD = 0.75). However, parents rated their children’s improvements 6 weeks after therapy significantly higher than did the therapists (M = 2.52, SD = 0.83, t[88] = 5.487, p ≤ .01). Thus, whereas parents and therapists agreed that the child’s behavior had significantly improved since treatment began with the clinic, parents rated their children as having significantly less symptomatology at follow-up than the clinicians did.

Discussion

Several interpretations of this practice analysis appear significant. First, parents and therapists reported significant therapeutic change and symptom reduction with brief psychological therapy. Even those children and families whose parents reported they did not complete treatment in the clinic were reported by therapists and parents to show improvement in terms of symptom reduction. Second, parents reported satisfaction with psychological services and treatment received, along with satisfaction with the ease of recommendations from the therapist. Third, the brief behavioral treatment was rated as an effective therapy for the majority of children and families in this population. These particular contributions of this study derive from several features, relative to earlier reports, in that this project assesses outcomes in a prospective methodology, with comprehensive attention to different elements of evaluation of functioning and perceptions in an established pediatric psychology setting.

<table>
<thead>
<tr>
<th>Parent</th>
<th>Therapist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Symptom severity scale</td>
<td>2.75 (1.08)</td>
</tr>
<tr>
<td>ECBI</td>
<td></td>
</tr>
<tr>
<td>Intensity</td>
<td>119.0 (47.47)</td>
</tr>
<tr>
<td>Problem</td>
<td>13.19 (9.77)</td>
</tr>
<tr>
<td>PSI/SF</td>
<td>84.62 (23.59)</td>
</tr>
</tbody>
</table>

Table III. Means and Standard Deviations for Parent and Therapist Ratings of Symptom Severity Pre- and Posttreatment, ECBI, and PSI/SF.
Other studies have examined these issues, but rarely have they done so in combination. These types of mental health practice and services research are necessary where insufficient information exists at the end of the continuum of efficacy—effectiveness—practice—services research (Street, Niederehe, & Lebowitz, 2000).

The results indicate that the majority of patients were Caucasian boys ages 2 to 12 years old. Externalizing behavior problems for outpatients accounted for over 45% of the primary and secondary referral problems presenting to these pediatric psychologists. The finding on types of presenting problems is in general agreement with previous reports of several investigators in that the majority of cases were for externalizing disorders in pediatric psychology outpatient clinics (Arndorfer, Allen, & Aljazireh, 1999; Evers-Szostak, 1997; Rodrigue et al., 1995; Sobel et al., 2001).

Overall, health professionals making referrals who could be contacted were satisfied with most aspects of services provided at the pediatric psychology clinic. More specifically, the referral sources believed that the clinic met the needs of the patients they had referred and that they were pleased with the services provided by the therapist. However, these results represent a modest return rate and therefore must be interpreted with caution. A possible reason for the low completion could be due to the fact that referring professionals had not had contact with the child since the referral was initiated for therapy. Professionals indicated they would like more feedback with regard to appropriate diagnosis, treatment plans, and therapy attendance. Feedback of this nature would facilitate collaboration among professionals, allow pediatricians and other health professionals to be more aware of the status of their patients referred, and enable the referring physician to evaluate the clinic and refer again.

The low number of therapy visits (mode = one session) and the brief treatment orientation are consistent with previous research in pediatric psychology primary care clinics (Evers-Szostak, 1997, Finney et al., 1991; Schroeder et al., 1983; Sobel et al., 2001). Due to the limited number of visits, interventions become more problem-focused and brief (Evers-Szostak, 1997). As a result, short-term behavioral approaches may be most effective and used most often. In addition, pediatricians are more likely to refer children and families to therapists using behavioral techniques (Andorfer et al., 1999). The modal number of sessions may help determine how therapists might anticipate services and how to create the most effective services that can be applied in such settings. According to information obtained from the consumers as to why they had discontinued treatment with the clinic, many of the families who attended only one session apparently indicated requesting a single session consult, the parents’/child’s decision not to seek the recommended treatment, scheduling problems, or had plans to return.

The majority of parents indicated they did not think that they had formally terminated, but thought that their child’s behavior had improved and no longer required psychological services. Additionally, many parents indicated they believed therapy was an “open door” and that they could return if their child’s behavior worsened or new problems arose. This perception seems consistent with Schroeder’s observation (1996) that therapeutic relationships get renewed over time as parents find a need. Although we did not measure systematically, some parents reinitiated contact with the clinic after the follow-up call was made and indicated the phone call prompted them to call and schedule another visit with the therapist. Follow-up calls with parents who have not maintained therapeutic contact may help reconnect them for additional benefit. In this study, families reported overall satisfaction with psychological services and found the recommendations useful and relatively easy to implement in the home/school.

Parents and therapists reported significant reductions in symptom severity with brief behavioral therapy. The majority of the children initially presented with mild to moderate problems, as rated by both parents and therapists. Parents indicated that the majority of children, since coming to the clinic for psychological therapy, showed no or mild problems, compared to the therapists who indicated that the majority of children still showed mild to moderate problems after therapy had terminated. One possibility for this difference is that the children had improved since the last visit (6 weeks prior), but the therapists were not able to observe these changes. In addition, because the majority of families saw a therapist only for brief therapy, between one and five sessions, children may have been showing improvement rather quickly, which the therapists may not have expected based on the severity of the presenting symptoms and their beliefs that therapy had not been completed. In addition,
parents may have been inclined to respond favorably to the questions because of their relationship with the therapist.

This project is an effectiveness study in that it measures outcomes of interventions delivered in real clinical settings, not a laboratory analogue situation. As a study of actual therapy, this project could not use randomized assignment of patients to different treatment conditions or control groups. Additionally, the patients and their families were not highly selected on a set of criteria, but were those referred to a clinic active in the medical center for over 30 years and continued after this project was completed.

A purpose of this study was to demonstrate that evaluative research can be adopted relatively easily and inexpensively into a clinic setting to gather data regarding services, treatment, and outcome. The measures used here took less than 15 minutes to complete and could become part of the clinic routine to request after patients discontinue treatment with the clinic, similar to standard gathering of information at intake. Forms can also be mailed to the parents to be filled out prior to the initial visit. However, due to the low return rate for the rating scales after treatment was completed, it would be helpful to complete these forms on the phone as well. Due to the relative ease of implementation, low cost to clinic, and little time it would take to have the forms completed, evaluative research could become standardized routine for clinics.

Why has this particular clinic not conducted an overall effectiveness evaluation before? The most direct answer is that there may have been no prior incentive or need to do so. The current atmosphere of accountability in health care, coupled with the new emphasis on evidence-based/empirically supported treatment has created favorable conditions for such evaluations of clinic functions. The current and former psychologists affiliated with this clinic have contributed extensively to the professional literature, for example, on specific treatment interventions and pediatric psychology phenomena, but have not been interested in overall evaluations. Following completion of the project, the pediatricians requested that the investigators conduct similar analyses of other aspects of their primary care clinics. While many studies have evaluated aspects of care in retrospective evaluations (Olson et al., 1988; Rodrigue et al., 1995; Sobel et al., 2001), relatively few studies have examined their clinic and services prospectively (cf. Finney et al., 1999). Similarly, this study attempts to narrow the gap between research and practice by demonstrating that empirically supported treatments, such as behavioral treatments, which are most often used in an unmonitored field clinical setting, can be effective in producing successful outcomes and symptom reduction for children and families. Prospective studies of this type can provide more accountability information to the psychologists and the managed care companies seeking evaluative data for every kind of health care delivery service. Pediatric psychology is demanding more research of this nature, which is comprehensive and uses multiple methods to determine if the services provided are promoting better lives and outcomes for the families.

Pediatric psychology has a good start on establishing bases for its treatments. The series of articles in the Journal of Pediatric Psychology on empirically supported treatments represents considerable efficacy and effectiveness research. The field now needs to turn its attention also to investigating further how treatments are used in everyday applications and what outcomes are obtained. That is, effectiveness research needs to move directly to practice and services research in studying how treatment and services are provided in clinical practice and service systems (Street et al., 2000). Compared to the numbers of articles in pediatric psychology on other topics, there have been much fewer on how services are provided and what can be done to improve them. Effectiveness and practice research should be undertaken for the range of pediatric settings and presenting problems including specialty inpatient and outpatient units or clinics. In addition, this type of research is needed in general primary care settings that provide different services offered than the one investigated here. For example, prevention and early intervention activities of psychologists and pediatricians need to be evaluated as practiced, not just as special research projects. Interventions for special populations, now also being served in primary care, also require effectiveness-practice research (e.g., HIV: Armstrong et al., 1999).

There are several limitations of this study. For example, we could not measure follow-up after longer intervals, and assessing how many families returned to therapy after the follow-up calls would be useful. In addition, using objective raters to evaluate the children would have restricted the demand characteristics for both parents and therapists in their report of behavior change. For example, ac-
cording to the ECBI, parents reported that problem behaviors were significantly less of a problem. There was no significant difference from pre- to posttreatment on the PSI-SF, which measured parental stress, and intensity score on the ECBI, which measured frequency of problem behaviors. Perhaps, inherently different information is yielded when a parent thinks about how the child is doing in a global nature rather than thinking about specific problems associated with the child and relationship. Parents may shift their focus from the presenting problem, not present in the same form after treatment, but they still found problems in other areas. Given the low return rate at follow-up, it may be that only those parents whose children improved or were susceptible to social desirability completed the forms. Another limitation attends to the generalizability of the study: this represents only one pediatric psychology practice. However, the general characteristics of this practice are similar to others reported in the literature in terms of behaviorally and cognitively behaviorally oriented treatments and types of diagnoses (Evers-Szostak, 1997; Finney et al., 1991; Schroeder et al., 1983; Walker, 1979). Therefore, this finding may indicate that this type of research has been primarily conducted in behavioral clinics or that gathering such data is more related to being a behavioral pediatric psychologist. Alternatively, the field as a whole appears to be becoming more behavioral (Roberts, 1986; Roberts & McNeil, 1995).

Additionally, the types of presenting problems indicate that, despite a seeming orientation toward issues of chronic illness in the pediatric psychology journals, significant clinical activity with behavior problems remains.

Providing effective psychological services for these disorders in pediatric settings is as relevant today as it was much earlier in the development of pediatric psychology as a field of research and practice (Lavigne et al., 1999; Roberts, 1986). Evaluative studies are becoming increasingly important to better document services and functions of the professionals who work in the health care field. Furthermore, professionals need to assess the impact of current trends (e.g., increased focus on primary care services) on the future service and care that pediatric psychologists provide for their patients (Rodrigue et al., 1995).

Acknowledgments

This article is based on a task project submitted by Amanda Sobel to the Clinical Child Psychology Program at the University of Kansas. This project was supported by a grant from the Office of Primary Care, University of Kansas Medical Center.

Received August 2, 2000; revisions received January 21, 2001, accepted January 26, 2001

References


