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and Conduct Disordered Adolescents:

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Improving Initial Session Attendance

of Substance Abusing

A Controlled Study

ABSTRACT. The present controlled study was the first to demonstrate a method of improving first session attendance in a population of conduct disordered and substance abusing adolescents. The results indicated that an intensive intervention involving the youth and parent was more effective in improving session attendance than a less intensive intervention that excluded the youth's involvement. The intensive intervention resulted in greater attendance to the first appointment (60% vs. 89%), greater attendance to appointments throughout the study (57% vs. 83%), and greater promptness to sessions that were attended (5.8 mins. vs. 0.8 mins.). Implications of this study are discussed in light of these results. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]

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# INTRODUCTION

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Missed appointments in mental health facilities constitute a major problem due to the under utilization of clinical resources and reduced quality and availability of patient care (Dunbar & Agras, 1980; Moser, 1994). Attendance rates for initial sessions are considerably lower than later sessions, and more staff time is proportionally allocated to initial session preparation (see Sparr, Moffitt, & Ward, 1993). Although attendance in the initial session (intake) has been reported as high as 85% (Noonan, 1973), most studies have indicated less favorable results. In fact, when mental health services fail to implement interventions that are specifically designed to improve attendance, only 22 to 70% (usually about 50%) of patients have been found to attend their first scheduled session (Allan, 1988; Burgoyne, Acosta, & Yamamoto, 1990; Campbell, Scilagyi, Rodewald, Doane, & Roghmann, 1994; Gottesfeld & Martinez, 1972; Hershorn & Rivas, 1993; Hochstadt & Trybula, 1980; Kourany, Garber, & Tornusciolo, 1990; Levy & Claravall, 1977; McKernan, McKay, McCadam, & Gonzalez, 1996; Nazarian, Mechaber, Charney, & Coulter, 1974; Overall & Aronson, 1963; Parrish, Charlop, & Fenton, 1984; Raynes & Warren, 1971; Rosenberg & Raynes, 1973; Ross, Friman, & Christopherson, 1993; Shepard & Moseley, 1976; Smith, Wienman, & Wait, 1990; Swenson & Pakarik, 1988; Tantum & Klerman, 1979; Turner & Vernon, 1976; Webster, 1992). Initial session attendance in substance abuse clinics is also about 50% (Gariti et al., 1995), and substance abuse, young age, and antisocial behavior have all been found to be associated with missed appointments (Cohen & Richardson, 1970; Deyo & Inui, 1980; Matas, Staley, & Griffin, 1992). This is especially noteworthy, as substance abuse is the most frequently occurring comorbid diagnosis among those with mental health problems, and this disorder represents the most frequently occurring mental health problem (see Carey & Carey, 1990; Miller & Brown, 1997). Attendance problems are not limited to the initial session in mental health settings. as 20 to 30% of patients who attend their first session do not attend their second scheduled session (Betz & Shullman, 1979; Krauskopf, Baumgarder, & Mandarcchia, 1981; Phillips, 1985). Thus, attendance in the first two sessions is particularly low.

Several interventions have demonstrated significant improvements in initial session attendance relative to no intervention, according to

well controlled studies that have been conducted across various mental health settings. These interventions have included increased discussion of the presenting problem, defining the process of obtaining clinical services, and assisting with attendance barriers prior to scheduling the initial session, 73% vs. 45% attendance (McKernan et al., 1996); mailing a program orientation letter two days prior to the initial session, 83% vs. 57% attendance (Swenson & Pekarik, 1988); mailing an orientation letter and delivering a telephone reminder 24 hours prior to the initial session, 72% vs. 40% attendance (Kluger & Karas, 1983); initiating a telephone reminder 24-hours prior to the scheduled session, 91% vs. 45% attendance (Hochstadt & Trybula, 1980); stating that 3 missed appointments would result in a delay of treatment, 82% vs. 42% attendance (Parrish et al., 1984); delivering appointment reminders prior to the session such as personalized letters emphasizing the benefits of the program or post-cards that specify the appointment time and date, 74 to 75% vs. 68% attendance (Campbell et al., 1994) and 64% vs. 48% attendance (Nazarian et al., 1974); a telephone appointment reminder delivered 1-2 days prior to the initial session, an orientation letter, or a 24-hour telephone reminder plus orientation letter, 64% to 74% vs. 58% attendance (Kourany et al., 1990); automatically rescheduling an initial session that was previously missed via a letter, 39% vs. 9% attendance (Lowe, 1982); and promising token incentives (i.e., baby food gift certificates) for session attendance, 37% vs. 22% attendance (Smith et al., 1990). Uncontrolled studies have indicated similar improvements in initial session attendance consequent to the implementation of variations of these interventions (Palmer & Hampton, 1987; Planos & Glenwick, 1986; Turner & Vernon, 1976; Webster, 1992).

However, little is known about which specific interventions are relatively most effective. When initial attendance interventions have been compared in controlled studies, the results have generally indicated nonsignificant differences in attendance (Campbell et al., 1994; Hershorn & Rivas, 1993; Kluger et al., 1983; Kourany et al., 1990; Ross et al., 1993; Swenson et al., 1988). When significant differences in initial attendance have emerged in controlled comparison studies (Lowe, 1982; Parrish et al., 1984; Smith et al., 1990), the less effective conditions have been limited to token incentives for attendance or minimal intervention (i.e., costume jewelry, orientation letter depicting program).

The need exists for appointment adherence procedures with the very non-adherent conduct-disordered, and substance abusing, youth. The adherence procedure should be evaluated by means of comparison with another "best effort" procedure rather than a minimal usual appointment procedure since such comparisons lend themselves easily to experimenter expectancy effects. The purpose of the present study, therefore, was to compare two attendance interventions in a population of adolescents who were dually diagnosed with conduct disorder and substance abuse. Parents in both interventions received a detailed program orientation that included discussion of the parent's concerns and the benefits of the program. However, one of the interventions also included the youth's involvement, motivational appointment reminder calls, and incentives for attendance such as snacks and promises to send letters to judges and probation officers depicting punctuality and attendance, if appropriate. It was hypothesized that the intervention that incorporated the youth and the motivational reminder calls would be more effective in improving attendance to the first two appointments since potential problems related to attendance might be resolved in talking with the youth directly.

## **METHOD**

### Subjects

The study sample consisted of 39 adolescents who met Diagnostic and Statistical Manual, fourth edition (APA, 1994) criteria for Conduct Disorder and Substance Abuse, according to a structured phone interview administered immediately prior to scheduling the first appointment, and shortly after receiving a telephone call from their legal guardian [parent] requesting treatment in an outpatient cognitive-behavioral treatment program specializing in adolescent substance dependence and conduct disorder. Study inclusionary criteria were: being within 30 minutes of the clinic, willingness of a legal guardian in the youth's home to participate in the youth's therapy, clinic accessibility, absence of concurrent psychological intervention, and no evidence of mental retardation or psychosis. Twelve (31%) of these youths were referred from a county juvenile detention center, 7 (18%) were referred by their juvenile justice caseworker, 8 (21%) were referred by other community agencies, and 12 (31%) referrals were parent initiated. Forty-four percent of these youth were court-mandated to receive psychological intervention, 27 (69%) were male, and their mean age was 15.4 years (SD = 1.1). Twenty-three (59%) were Caucasian, and 16 (41%) were of ethnic minority status (African-American = 10%, Hispanic = 10%, mixed minority status = 21%).

The legal guardians responsible for bringing these youth to the clinic were 33 to 58 years-old (M = 42.2, SD = 6.4). Most legal guardians were biological parents (biological mothers = 77%, biological fathers = 13%), and their average gross family income per year was \$39,308 (SD = 21,150, range = 0 to \$100,000). Thirty-one (80%) of these legal guardians were female.

## Procedure

In the initial telephone call by the parent to the outpatient clinic, the subjects were assessed to meet study inclusionary criteria and those that did were randomly assigned by a coin flip to receive an intensive intervention involving the youth and legal guardian [parent] (N = 19)or an intervention involving only the parent (N = 20). One subject who had been assigned to the intensive parent and youth condition withdrew from the study prior to receiving intervention. The study involved attendance at two sessions. Within two days of their initial call to the clinic, parents were given an opportunity to schedule an initial (intake) appointment together with their youth at the clinic. Parents chose their intake appointment time and date from a schedule of clinician availability. The intake session was always scheduled to occur within 2 to 7 days of the parent's initial call to the clinic. The second session was scheduled to occur about 7 days after their intake session was attended. This session was scheduled by the clinician, usually the same time as the intake appointment but 7 days later. If a youth and parent missed an appointment, the session was rescheduled by the clinician who had been scheduled to conduct that session. In doing so, the clinician provided available appointment times until a satisfactory appointment time was accepted by the parent. Appointments continued to be made until both sessions were attended, or the parent declined further participation. The present study concerned only the first two sessions. Clinicians were blind as to the nature of the study.

Parent-focused attendance intervention. Immediately prior to scheduling the intake appointment, the legal guardian was read the

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following program orientation in a telephone call (interviewers were predominately doctoral students in clinical psychology who were trained to maintain strict adherence to a standard script in providing this information): (1) outpatient therapy would be cost-free due to a grant, (2) the program had demonstrated efficacy in reducing youth drug abuse and conduct problems, (3) urine drug screens and several standardized questionnaires would be administered to assess psychological functioning of the youth, (4) effort in therapy might result in less severe judicial penalties in the event of court involvement, and (5) three failures to attend sessions without notice would result in termination from the program.

During the intake session, the parent and youth were also given a form to read at their leisure that depicted the program's correspondence policy with outside agencies and the legal system. The document specified that outside agencies and the legal system often request information regarding attendance and punctuality to sessions, completion of program therapy assignments, compliance to program procedures, and progress in therapy. That upon written permission from the parent, the program clinician would relate this information to the agency requesting said information. The document also specified the program's past effectiveness, and emphasized that lateness to scheduled sessions, cancellations without notice, and re-scheduling sessions, would delay the treatment of others.

Intensive parent and youth attendance intervention. Parents who were assigned to the parent and youth attendance intervention received the same program orientation as the parent-only attendance intervention. However, these parents were also administered several other interventions with their youth.

Both the parent and youth were scheduled to receive a motivational telephone reminder call 2-3 days prior to their scheduled intake session. Standard scripts were utilized during these calls. During this call the youth and parent were each informed of the following during this call: (1) the clinician (name provided) who was scheduled to meet with them was looking forward to the assessment meeting, (2) notification that other clients and staff members say "good things" about the assigned assessment clinician, (3) an ample opportunity to discuss concerns regarding their treatment was provided, (4) empathy was provided regarding any concerns that may have been expressed, (5) the scheduled time and date of the intake session was reiterated, (6) the

parent was asked to verify directions to the clinic, (7) refreshments would be available during all sessions, (8) the subjects were asked to be a few minutes early, (9) stating that their family would probably be very happy with the program as others in their situation were. In addition, court-referred youths were told that their promptness/attendance to scheduled sessions would be communicated in a letter to appropriate judicial personnel, if relevant.

During the first session, youths and their parents were each asked to sign the document that depicted the program's correspondence policy with outside agencies and the legal system (rather than review as in the parent-only condition).

Prior to the 2nd scheduled session, and within 7 days after their intake session attendance, youths and their parents were each scheduled to receive a telephone call. These calls included: (1) a statement that the clinician who conducted the assessment was impressed with their session promptness (if on time), (2) an opportunity to discuss possible concerns regarding their treatment, and (3) empathy was provided regarding any concerns that may have been expressed by the subjects. Youths were offered snacks and soda at both sessions.

# Measures

Three measures were used to assess attendance. These measures included (a) the number of youths who kept their first appointment (intake), (b) the percentage of appointments that were kept, and (c) the average number of minutes late to sessions that were attended. Being greater than 15 minutes late to a scheduled session was considered non-attendance, as determined by common practice in local psychology clinics.

# Sample Comparability of the Two Intervention Groups

Two-tailed t-tests performed on continuous subject and demographic variables (age of parent and youth, income), and chi-square tests conducted on categorical subject and demographic variables (referral status, gender of parent and youth, race, relation of parent to youth), revealed no significant differences between subjects receiving the intensive parent and youth attendance intervention and subjects receiving the parent-only attendance intervention (p > .05). Also, the two

intervention groups did not differ in the number of days after the initial call to the clinic that the first assessment session was scheduled [the mean of the parent-only attendance intervention was 4.4 (SD = 1.9); the mean of the parent and youth attendance intervention was 4.5 (SD = 2.1)], and a chi square test indicated that the groups did not differ in the number of appointments that were made across the study [the mean of the parent-only attendance intervention was 3.0 (SD = 2.1); the mean of the parent and youth attendance intervention was 2.7 (SD = 1.5)].

# Protocol Adherence

Measures were taken to assure protocol adherence by training and rehearsal of the staff and by having them utilize a protocol adherence checklist. The responses to the protocol adherence checklist indicated that all procedures were implemented according to protocol in both conditions. Regarding the motivational telephone reminder calls that were scheduled in the intensive condition, 90% of the parents and 90% of the youths were able to be contacted by telephone 2 to 3 days prior to the initial scheduled session, and 100% of the parents and 79% of the youths were contacted by telephone prior to the 2nd scheduled session. Calls were attempted once during the evening and once during the day on the 2nd and 3rd day prior to the scheduled session until the subject was contacted. Two-tailed t-tests performed on session attendance and minutes late to scheduled sessions indicated no differences between subjects in the parent and youth attendance intervention who received, and did not receive, all scheduled telephone appointment reminders (p > .05).

# Comparison of Interventions on Measures of Attendance

Table 1 presents differences in attendance between the two intervention groups. One-tailed t-tests indicated that subjects who received the parent and youth attendance intervention, as compared to subjects receiving the parent-only attendance intervention, attended a greater percentage of their appointments, 82.8 vs. 57.3% (p < .01), and were more prompt to sessions that were attended, 0.8 vs. 5.8 minutes (p < .0005). Five subjects in the attendance group were excluded from the latter analysis because they did not attend a session.

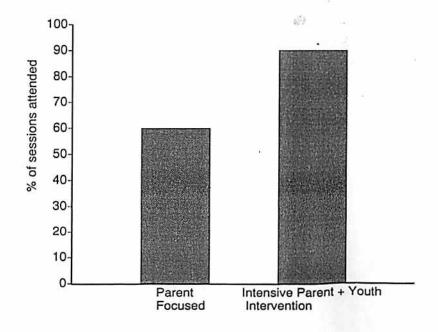
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A one-tailed chi square test utilizing the Yates Continuity Correction term, indicated that significantly more patients in the parent and youth intervention (N = 17/19) kept their first appointment than did subjects who received the parent-only attendance intervention (N = 12/20) (Chi square = 3.03, p < .05). As shown in Figure 1, 60% of subjects in the parent-only attendance intervention attended their first

## TABLE 1. Comparison of Interventions on Attendance Variables

Variable	Parent-only Intervention		Parent and Youth Intervention		(+)		
	Mean	(SD)	Mean	(SD)	Ν	t	P(1tail)
Overall % of scheduled sessions attended	57.0	(37.8)	82.8	(23.8)	39	-2.54	<.01
Avg. mins. late to sessions	5.80	(4.72)	0.79	(1.70)	34	3.92	<.0005

FIGURE 1. Percentage of Subjects Attending Their Intake Appointment in the Parent-Focused and Intensive Parent + Youth Interventions



scheduled session in contrast to 89% of subjects in the parent and youth attendance condition. Thus, subjects receiving the parent and youth intervention demonstrated significantly greater attendance across all measures.

# DISCUSSION

The present study was the first to demonstrate a method of improving initial session attendance in a population of conduct disordered and substance abusing adolescents. The results indicated that an intensive intervention involving the youth and parent was more effective in improving session attendance than a less intensive intervention that excluded the youth's involvement. The intensive intervention resulted in greater attendance to the first appointment (60% vs. 89%), greater attendance to appointments throughout the study (57% vs. 83%), and greater promptness to sessions that were attended (5.8 mins. vs. 0.8 mins.). It should be mentioned that being early to an appointment was recorded as being on time, and that subjects in the intensive condition, relative to subjects in the less intensive procedure, often arrived early to their sessions. This allowed them to complete the necessary program forms and prepare for the session.

This increased adherence can be attributed to multiple differences between the two procedures. First, the parent-focused intervention did not include motivational appointment reminder calls to either parents or their youth, whereas parents and their youths in the intensive condition received such calls 2 to 3 days prior to their scheduled sessions. These reminder calls included reviews of the benefits of session attendance, such as potential leniency by court authorities, availability of snacks, discussion of obstacles to attendance, past success of the program, satisfaction of previous clients, and the importance of session promptness, all of which were not included in the parent-focused intervention. A distinctive feature of the intensive procedure was the involvement of the youth, not only by contacting the youth by telephone prior to scheduled sessions, but also in the first session by asking the youth to sign an attendance contract after reviewing its contents, and providing snacks for the youth. In past studies, adolescents have been omitted from the interventions that target their attendance. The experimental design did not permit isolation of the importance of each of the above differences, but did demonstrate the substantial effectiveness of their use in combination with this typically non-adherent population.

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The degree of initial appointment adherence for the intensive condition (89%) is especially high in this population of dually diagnosed adolescents (substance abuse and conduct disorder). Our initial experience with a typical appointment procedure had been about 45% initial appointment adherence. The parent-only procedure had been developed to improve adherence, and the present results of 60% adherence with this procedure suggests that improvement did result although the experimental design did not formally provide a comparison with the typical appointment procedure. Future studies need to be conducted that examine the relative efficacy of specific components in the parent and youth intervention. The intensive parent and youth intervention that was developed in this study is certainly more cost-effective than the method of institutional placement or the less drastic method of implementing family counseling procedures in the home or office with the immediate family to improve subsequent attendance (Szapocznik et al., 1988; Santisteban et al., 1996).

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