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### Assessing treatment integrity: A case example

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## Assessing Treatment Integrity: A Case Example

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Anat Zeira, Betty Blythe, and Anita Reithoffer

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*This paper presents an example of assessing treatment integrity as part of an experimental study of home-based, intensive family preservation services (IFPS). Participants were 103 IFPS workers and 24 state public child welfare agency workers (FC). The structured, self-report questionnaire included questions about specific components of the services, as well as the characteristics of the family and the workers themselves. Findings suggest that IFPS workers delivered services according to the treatment model guidelines. The procedure yielded a good estimate of whether the structural components of treatment were delivered according to the model as delineated in the treatment manual. The paper discusses the advantages and disadvantages of this approach to assessing treatment integrity.*

**Key Words:** Treatment integrity, practice research; family preservation services

Family preservation services, including intensive family preservation services (IFPS) are offered as an alternative intervention for children at imminent risk of removal from their families, before children are placed in substitute care (cf. Fraser, Pecora, & Haapala, 1991; McCroskey, 2001; Whittaker, Kinney, Tracy, & Booth, 1990). Early studies of IFPS reported very positive findings (Kinney, Madson, Fleming, & Haapala, 1977). In response to calls for increased rigor, a series of outcome studies utilizing experimental or quasi-experimental designs was implemented and the effectiveness of IFPS was called into question (Feldman, 1990; Shuerman, Rzepnicki, Littell, & Chak, 1993; Yuan, McDonald, Wheeler, Struckman-Johnson, & Rivest, 1990). While some of the studies found evidence suggesting that family preservation programs are effective in avoiding unnecessary out-of-home placements, others did not show a significant difference between children receiving family preservation services and those receiving other services (Blythe, Salley, & Jayaratne, 1994).

Various reasons have been proffered for these mixed findings including concerns about the research methodology of some of the studies. In fact, part of the debate around the effectiveness of IFPS concerns the difficulty in determining what was the intervention (i.e., what the workers do) and if it was delivered according to the treatment protocol. The study reported in this paper is part of a larger experiment aimed at assessing the effectiveness of a specific family preservation intervention program. A major component of the study was to record certain components of the intervention process to facilitate better inferences regarding the effectiveness of the program.

Many intensive family preservation programs follow a general model of providing services to families in their home with the ultimate goal of keeping families safely together and avoiding unnecessary out-of-home placements. Programs vary, however, in terms of the interventions employed and the means of attaining specific goals (Berry, 1995). The complexity and variation of family preservation programs may be another cause for inconclusive findings regarding their effectiveness as compared to the usual

services for children at imminent risk of removal (Rzepnicki, Shuerman, & Littell, 1991). In each of the several variations of the family preservation model, workers use different content-related components (e.g., intervention techniques and strategies) as well as different structural components (e.g., length of treatment, amount of face-to-face contact, and availability of the worker). With respect to the content-related components, programs vary not only from one worker to another, but also from one client unit to another according to the clients' specific needs and circumstances. As a result, it often is difficult to show that the family preservation model and services were provided as intended in the model. Therefore, criticism often is directed at the treatment model and the poor validity of implementing the intervention (Blythe & Tripodi, 1989).

#### *What is Treatment Integrity?*

Recent developments regarding practice guidelines and treatment manuals are important contributions to the social work profession's efforts to become more scientifically based (Proctor, Rosen & Rhee, 2002). While practice guidelines aim at providing practitioners with the best-known interventions to attain specific outcomes, treatment manuals delineate the intervention process and allow for a more systematic and consistent delivery of services (Waltz, Addis, Koerner, & Jacobson, 1993). Still, even employing both treatment manuals and practice guidelines are not sufficient for systematic practice, because delivering the intervention in the prescribed manner requires constant training and supervision (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Moreover, the delivery of the intervention should be accompanied by empirical checks to show that the interventions are properly implemented.

Treatment integrity, treatment fidelity, and adherence to treatment are terms that often are used interchangeably to describe the degree to which an intervention procedure is delivered as intended and in accordance with the planned intervention protocols (Ivanoff, Blythe, & Tripodi, 1994). Gambrill (1997) stress that treatment integrity should focus on the extent to which workers are using components that are part of the protocol and not using components that are not part of the protocol. Waltz et al. (1993) further suggest that sometimes treatment integrity is being confused with the worker's competence in executing the treatment. Hence, in order to deliver the intervention as intended, it is assumed that workers are trained and capable. In this study, the workers in the experimental condition were trained within the IFPS model.

Along with these definitions, the literature reveals a growing interest in treatment adherence research. Such research encompasses methodological strategies aimed at documenting the process by which an intervention is delivered to affirm that a given intervention is implemented as intended and according to the procedural and theoretical aspects of the model (Hogue, Liddle, & Rowe, 1996).

#### *Why is it Important to Assess Treatment Integrity?*

Every intervention program is aimed at making a change in a specific emotional, behavioral, or cognitive situation. Gresham and his colleagues (2000) assert: "A fundamental goal of all intervention research is the unequivocal demonstration that changes in a dependent variable are related to systematic, manipulated changes in an independent variable and are not due to other extraneous variables" (p.198). Outcome evaluation is thus based on the notion that interventions are responsible for the observed change. Therefore, researchers are obliged to provide evidence that the intervention was employed according to its theoretical and practical guidelines. That is, when an

intervention shows evidence of high treatment integrity, the resulting outcomes have greater internal validity (Moncher & Prinz, 1991). And, the converse should be considered when appropriate. If programs are found to be ineffective, is it due to a weak intervention or something else? In addition, measuring the level of treatment integrity enables researchers to compare outcomes across two or more specific programs. It also facilitates comparison between innovative interventions and “standard” services and may explain the effect of treatment assignment on outcome (Hargreaves, Shumway, Hu, & Cuffel, 2000). Because of the controversy around the effectiveness of IFPS, outcome studies that are able to show that the intervention was employed systematically and in accordance with the practice plan provide stronger evidence about the effectiveness of these interventions.

### *Measuring Treatment Integrity*

Measuring the course of treatment and providing evidence that it was implemented as intended is a challenging task (Craig-Van Grack, 1997). In fact, many of the studies that allude to treatment integrity provide no empirical evidence regarding the degree to which interventions were implemented as intended (Gresham, 1997; Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000). We identify two sources for this challenge. First, any interference with the prescribed course of an intervention poses a threat to its measurement validity (Moncher & Prinz, 1991). Second, social interventions, unlike such interventions as some medical procedures, involve interpersonal relationships that are more variable and thus more difficult to tap (Salend, 1984). Therefore, assessment of treatment integrity has to take into consideration the nature of the intervention and its various components such as workers’ style and experience (McMahon, 1987).

Assessment of treatment integrity is based on information about the participants and their activities during the intervention course of treatment. Gresham et al. (2000) summarize the practical considerations in measuring treatment integrity and suggest three possible methods: direct assessment (e.g., observers conducting “live” observations or examining videotapes) indirect assessment (e.g., self-reports or interviews), and manualized treatment (e.g., detailed step-by-step manual). They stress that while the first two methods provide actual measurement of the way the intervention is implemented, the third method of using a treatment manual -- as often reported by researchers -- does not provide any information as to the actual implementation of the detailed instructions (Gresham et al., 2000). Thus, they recommend assessing treatment integrity by combining treatment manuals that delineate the treatment model with one or more forms of actual measurement of its implementation. In this study, the workers followed a treatment manual and reported on the implementation of the structural components of the intervention.

### *Treatment Integrity in Intensive Home-Based Family Service*

While there are a growing number of studies on the integrity of treatment in other domains (e.g., education), published literature in IFPS is scarce. Because several structural components of IFPS intervention (such as length of treatment, minimum face-to-face contact, and spending flexible funds for specific needs) are not necessarily the same in all IFPS models, it is important that the integrity of the treatment be verified and reported. Notwithstanding this variability, very few studies of intensive home-based services have included integrity checks. The following review focuses on the IFPS

components that were investigated and on the contribution of tracking treatment integrity in outcome studies.

Berry (1995) studied 40 families engaged in a family preservation agency in order to assess the provision of services. She argues that family preservation programs include three types of services: soft services, hard services, and enabling services. Soft services concern emotional needs (such as counseling, and providing support and understanding), hard services pertain to concrete needs (for example, providing funds for housing, medical care and food), and enabling services focus on “helping families negotiate access to the supportive services offered by agencies and institutions” (p.28). The study results show that soft services were the most frequently provided services, followed by enabling services. Hard services rarely were provided, however, largely due to budget cuts. The findings indicate also that there was no significant association between the total amount of time spent with the families and their severity of risk. Yet, in a 3 month follow-up, 90% of the families were still intact (Berry, 1995).

While Berry’s study has several methodological limitations (Berry, 1995), its merit is mostly in stressing the importance of tracking provision of the different types of services. Unlike the expectation that a short-term treatment would emphasize provision of hard services and that workers will spend more time with the neediest families, the contradictory findings suggest that workers were not practicing the model as intended. Berry thus recommends further training for workers that include clarifying the principles of the IFPS model (Berry, 1995).

Another evaluation study of family preservation services in four different locations in the Netherlands (Brink, Veerman, Berger, & Kemp, 2000) depict the components of the intervention model from both theoretical and practical perspectives and examines if the program was carried out in practice as prescribed by the program model. The researchers provide detailed and specific information on the various components of the treatment model, including the length and duration of treatment, the availability of services, and the specific techniques and guidelines that were used. They found that most workers were following the treatment model (Brink et al., 2000). Tracking the workers’ adherence to the treatment protocol also enhanced their ability to interpret data on the outcomes of the services. Moreover, when deviations from the model were detected, the workers’ training was revised accordingly.

Henggeler and his colleagues (1992; 1997) studied the effects of family preservation using multi-systemic therapy (MST) with violent and chronic juvenile offenders and their families. Workers’, parents’, and adolescents’ reports assessed adherence to the treatment model. Despite differences in the characteristics of the population served, the general goal of MST is similar to other intensive home-based programs, which is to maintain the adolescents safely with their families and to reduce and prevent future incarceration and arrest.

Henggeler et al. (1997) show that adherence to the MST treatment principles has a major role in attaining desired outcomes regarding adolescents’ criminal activity. In an earlier randomized trial of MST with juvenile offenders in a controlled setting, MST cases had fewer arrests and a reduction in incarceration (Henggeler, Melton, & Smith, 1992). A subsequent study of MST, conducted in natural field conditions, did not find a significant change in arrests and incarceration (Henggeler et al., 1997). But, the researchers found that cases with greater adherence to the MST model attained substantially better outcomes. They argue that workers received intensive support to maintain integrity in the controlled study, while workers in the field study did not receive

any additional support to increase adherence to the model. Based on their analyses, they conclude that drift from the treatment model was related to undesired outcomes concerning the adolescents' criminal activity and incarceration (Henggeler et al., 1997).

In summary, despite the scarce empirical reports in the literature on IFPS, the positive effects of adhering to treatment practice guidelines and the theoretical model are well documented. Outcome studies, and especially those that concern controversial models of interventions, should provide information not only on the outcomes (i.e., measures and procedures) and the problems (i.e., population characteristics and diagnosis), but also on the interventions both as they were intended and as they were eventually implemented. This type of information is crucial to a fair and more accurate interpretation of the results of outcome studies.

### *The Research Problem*

In this paper, we present an example of assessing treatment integrity in a study of home-based, intensive family preservation services. The services are funded by the state and implemented by private agencies. The contracts with the agencies stipulate the intervention model to be implemented, which is very similar to the Homebuilders model (Kinney, Haapala, & Booth, 1991). The study was conducted in a midwestern metropolitan area. To ensure adequate acquaintance with the treatment model, only "mature" IFPS programs that had been in existence for at least 6 months were included in the study.

Like most IFPS programs, these too follow a complex intervention model which includes a combination of required structural components and flexibly selected treatment strategies (McCroskey, 2001). The assessment of treatment integrity focused on the structural components of the treatment – that is the components that are defined by the structure and tenets of the intervention model and thus are shared by all the workers and considered to be the foundation of the model. For example, caseload size should be limited to 2 cases per worker at any given time, and the length of service limited to 4 to 6 weeks. Such components also were identified in previous studies (e.g., Berry, 1995; Brink et al., 2000; Della Toffalo, 2000). Within the confines of these structural components, workers are encouraged to select from a long list of hard and soft services or intervention strategies to tailor an intervention to meet the specific needs of each family. Thus, the structural components are viewed as the essence of IFPS and provide a critical indicator of treatment integrity.

The family preservation programs studied here follow a detailed manual that describes the process of treatment and documents its structural components (Families First Michigan, 2002). Documentation of services delivered is part of their routine case report. In contrast, the regular services that are provided by the state's public child welfare agency are described in broad, general terms and workers deliver them in many forms. Hence, we assumed that services delivered by IFPS workers differed from those delivered by the foster care (FC) workers at least with regard to the structural components of the treatment.

The purpose of this article is to suggest a procedure to assess the treatment integrity of complex intervention models. More specifically, we examine whether: 1) IFPS workers deliver services as intended; and 2) IFPS are markedly different from FC services.

## Method

### *Case Assignment*

The appropriate target for IFPS are families who are at imminent risk of having one or more children removed into protective services. Because previous studies of IFPS were criticized for including lower-risk families in their sample, we wanted to be sure that the imminent risk criterion was met. Thus, cases for the study were drawn from the families in which a family court judge or referee had authorized an initial petition for removal of the children and randomly assigned the child to IFPS or FC. To ensure that the child could be safely maintained at home, should the case be assigned to the IFPS condition, we followed a meticulous process that involved several professionals working together over a short period of time. When asked, most of the workers in our study (92.2%) thought that their cases were an appropriate referral for the program. Families in both conditions could refuse to participate in the study but still receive services. In addition, families in the IFPS condition could refuse to receive family preservation services, in which case the child would go into foster care.

### *Sample*

As mentioned earlier, this investigation is part of a larger outcome study that compared IFPS and FC. Of the 202 families participating in the outcome study (120 families in IFPS and 82 families in FC), due to administrative reasons we could track data pertaining to treatment integrity on 75% of the families. Our sample thus is comprised of 103 families receiving IFPS and 48 families receiving FC services.

In general, the workers in the two conditions had similar socio-demographic characteristics. The majority of the workers in both groups were female (66.3% in IFPS and 83% in FC). Most were caseworkers (89.8% in IFPS and 88.9% in FC), an additional 8.7% of workers in IFPS were supervisors and 6.3% in FC were intake workers. The vast majority held a bachelor's degree (88% in IFPS compared with 79.5% in FC) and some workers had a master's degree (11% in IFPS vs. 15.9% in FC). Most of the workers in both conditions were African American (70.9% in IFPS vs. 58.1% in FC), although more FC workers were Caucasian (11.7% in IFPS vs. 35.9% in FC). On average, IFPS workers had worked for the agency for 30 months ( $SD=33.4$ ) with a range of 1 to 240 months and a median of 19 months. FC workers had worked for their programs between 3 and 96 months, with the mean of 34.3 months ( $SD=28.1$ ) and a median of 24 months.

Workers in the two conditions had very different numbers of children in their caseloads. IFPS workers carried caseloads of 1 to 17 children with a mean of 5.1 ( $SD=3.16$ ) and a median of 5 children. At the same time, FC workers had caseloads ranging from 10 to 57 children with a mean of 29 ( $SD=10.3$ ) and a median of 27 children. In accordance with the IFPS model, the vast majority of IFPS workers (94%) did not carry more than two families at the same time.

### *Procedure*

To reduce the interruption to routine practice, treatment integrity data were collected in a different manner from workers in each condition. IFPS workers completed



the treatment integrity questionnaires at the conclusion of each case, which was 4 to 6 weeks after the services were initiated. Slight adjustments were made to the questionnaire for the foster care workers and it was administered orally, over the phone, approximately 6 weeks after FC services were initiated.

### *Measurement*

The integrity of treatment was measured by a structured, self-report, mostly closed-ended questionnaire that was based on a questionnaire already used by IFPS programs. The questionnaire was pre-tested on a sample of cases and slightly revised as a result of feedback from workers. Workers in each condition were presented with a series of items that describe the services provided and the participants in three areas. The first area includes items on the characteristics of the family and the nature of the specific case. For example, data were collected about whether the parents or children faced such issues as domestic violence, substance abuse, unsafe housing, loss of a family member, or loss of income. The second area refers to specific components of the services provided, such as length of treatment, amount of face-to-face time spent with the family, and flexible funds spent for the family. Items in the third area pertain to the workers' demographics, such as gender, race, education, and current position. Most of the information collected by the treatment integrity questionnaire should be part of any case record. Moreover, IFPS workers routinely provided similar information on all of their cases. The structural components are straightforward and their operational definition is self explanatory. Therefore, we do not expect that the differential data collection procedures affected the quality of the data.

## **Results**

Before presenting the findings on the services provided by FC and IFPS, we compare the characteristics of the families in the two conditions. As described earlier, the criterion of imminent risk was met while assigning cases to the study. Because families had to meet the regular IFPS screening criteria (e.g., children could be safely maintained at home with an intensive intervention), the level of risk is assumed to be similar in both conditions. First, we describe the sample characteristics of the families in the two conditions. We then compare the services provided to families in each condition.

### *Family Characteristics*

Families in the two conditions are fairly similar with regard to their socio-demographic characteristics. Table 1 presents the family characteristics for the participants in each condition. The only statistically significant differences were in the mother's race. As can be seen in Table 1, there were significantly more white mothers in FC and significantly more African-American mothers in IFPS ( $\chi^2 = 9.9$ ,  $df=3$ ,  $p=.04$ ).

We also asked the workers to specify if they encountered any of the following issues regarding the parents' or the children's mental and physical condition during the intervention period: substance abuse, serious communication disorder, mental illness, physical disability or serious illness, sexual abuse and mental retardation. The participants in the two conditions shared similar characteristics with regard to those issues. Substance abuse was the only issue with a significant difference, with 43.8% of

the parents in the FC condition experiencing substance abuse as opposed to 17.5% of the parents in IFPS ( $\chi^2 = 12.3$ ,  $df=1$ ,  $p= .006$ ). See Table 1, pg. 36.

Workers also were asked to indicate if families experienced domestic violence, homelessness, threat of loss of home, unsafe neighborhood, unsafe housing, or loss of family income. Significant differences between families in IFPS and FC were only found in one area. Domestic violence was experienced by 33.3% of FC as compared to 13.6% of IFPS families ( $\chi^2 = 9.1$ ,  $df=1$ ,  $p= .028$ ).

### *First Contact*

IFPS workers contacted the vast majority (79.6%) of the families within 24 hours of the referral, as prescribed by the treatment model. Another sixteen families (15.5%) were contacted later because they were not available to meet the worker immediately due to work or other obligations. Data on first contact were not available on five (4.8%) additional families. While the majority of the first contacts with IFPS families were made within 24 hours of the case referral, FC families were contacted for the first time an average of 22 days ( $SD= 25.9$ ) after referral. Only 1 FC family was contacted within 24 hours and 20.9% of the families were contacted 1 month or later.

### *Intensity and Length of Treatment*

The duration of treatment for all IFPS families was within the model's guidelines and lasted between 6 to 44 days, with an average of 27 ( $SD= 7.5$ ) days. The range of the total time IFPS workers spent with families was 9.5 to 217 hours and the median was 60.5 hours. Several of the families whose problems were described as more severe by the workers stayed in treatment longer ( $r = .22$ ,  $p < .05$ ). While IFPS families received services mostly during traditional hours (i.e., 8:00-5:00 on weekdays), workers also spent a substantial amount of time with families during non-traditional hours on weekdays and on weekends. Altogether, workers spent an average of 12.3 ( $SD= 10$ ) hours in face-to-face meetings and 36 ( $SD= 61.2$ ) minutes on the phone with families during non-traditional hours.

All FC cases still were open at the time of data collection (approximately 6 weeks after case was assigned to the study). Yet, IFPS workers spent significantly more time with families than FC workers. On average, they had 66 ( $SD= 31.4$ ) hours of face-to-face contact with families as compared to 4.7 ( $SD= 7.7$ ) hours for FC workers ( $t= 17.4$ ,  $p < .000$ ). No significant differences were found with regard to the average time workers in both conditions spent with families on the phone (106.9 minutes in IFPS and 95.6 phone minutes in FC).

### *Service Characteristics*

Our findings show that most of the IFPS families had meetings with workers during weekends (68%) and after hours on weekdays (89.3%), whereas only one FC family (2.1%) was visited during the weekend and 15 FC families (31.2%) met their workers on weekdays after hours.

In accordance with the IFPS treatment model, the vast majority of the workers (94%) had a caseload of two families at a time. Moreover, very few meetings with the families were held in the agency's office (11.8%). While all IFPS families had a plan in place so they could reach the worker 24 hours a day, only 40.4% of FC families had such plan in place ( $\chi^2 = 53.9$ ,  $df= 1$ ,  $p= .000$ ). About one third of the IFPS families made crisis calls to workers during the course of treatment.

The vast majority (93.2%) of IFPS families participated in developing the treatment goals. The equivalent process in FP is to develop a parent/agency agreement. Less than one-third (29.2%) of the FC families had such an agreement. Moreover, only one-half of these agreements were accepted by the court. This may indicate that the agreements do not reflect a true harmony between the worker and the family vis-à-vis the treatment goals.

### *Provision of Funds*

Use of flexible funds enables workers to provide immediate help to the families in different areas (Berry, 1995). Workers were asked to indicate the extent and nature of use of the flexible funds that are available for families and that are part of the specific services of IFPS. The findings indicate that nearly three-fourths of the IFPS families (73.8%) received some form of these flexible funds, ranging from \$2 to \$2,190 with an average amount of \$304 (SD=422) per family. At the same time, only three (6.4%) FC families received some form of funds directly from their FC workers.

Table 2 presents the amount of dollars provided to IFPS families by the type of fund. Funds were most often provided for recreation, housing (rent/deposit), furniture and/or appliances, and groceries. Less frequent expenditures include funds for household repairs, cleaning or maintenance, transportation, substance abuse (treatment or screening), utilities, personal care items, and clothing. Other types of flexible funds (e.g., baby products, day care, state documents and medications) were given to 29.1% of the families.

Most of the families in both conditions were referred to and received a wide range of other services (86.4% in IFPS and 81.2% in FC). Table 3 compares the percentages of families receiving services in each condition by type of service. One in every two FC families and one in every three IFPS families received parent training. Public income support was provided to one in five families in both conditions. Other frequent services were health care and outpatient mental health counseling for FC families, and childcare or babysitting and housing to IFPS families. As can be seen in Table 3, significant differences between conditions were found in several types of services. More IFPS families received childcare or babysitting, financial assistance for housing, family planning, household management, housing services, SER, and recreational services. In contrast, more FC families used parent training, drug treatment, health care, and inpatient mental health services.

There was no significant difference in the mean number of different services provided to families. On average, families in IFPS received 3.8 different services and FC families received 3 services ( $t = .72$ , N.S.). The median number of services per family, however, was three for IFPS and two for FC. Furthermore, 21.4% of the IFPS families received five or more different services compared with 16.8% of the FC families ( $\chi^2 = 20.9$ ,  $df = 12$ ,  $p = .052$ ). See Tables 2 and 3, pgs. 37 and 38.

## **Discussion**

Adhering to treatment protocols has been recognized as essential to concluding that effective outcomes can be attributed to a specific intervention (Dunbar-Jacob & Schlenk, 1996). Assessment of treatment integrity thus is fundamental to a valid study of the efficacy of intervention protocols. As part of a larger outcome evaluation of family preservation services, this study examined whether IFPS workers delivered services

according to the treatment guidelines, and if these services were markedly different from those delivered by the foster care services offered by the state.

Our findings indicate that IFPS workers implemented the critical structural components of the model as intended. The overall length of the treatment was brief and intensive. During the intervention period, IFPS workers were available 24 hours per day. Most of the intervention took place in the family's home during and after office hours. Families were involved in setting the treatment goals and IFPS workers supported families with both "hard" services (i.e., flexible funds) and "soft" services (i.e., parent training) to increase their ability to keep the children safely at home. These findings are consistent with the literature that describes intensive family preservation interventions (c.f., Berry, 1995; Blythe, 1990; Craig-Van Grack, 1997; Kinney, Haapala, Booth, & Leavitt, 1991; Lewis, 1991).

Because some observers expressed concern that FC workers who knew they were part of an outcome study might change their practice, the study compared the key elements of IFPS with those of FC services. Our findings show that, despite the resemblance in family and worker characteristics in both conditions, IFPS were markedly different from FC services. For example, families receiving services from FC workers were engaged in significantly longer treatment. In fact, after 6 weeks – the longest treatment allowed by the IFPS model – all FC cases were still open. In addition, many IFPS workers met families during weekends and evenings while the majority of FC workers met with families during traditional weekday hours. We also found that most IFPS families received funds to improve their housing and enjoy recreational activities. At the same time, FC families seldom received funds for such things. Finally, in most cases IFPS workers made greater use of other available services than did FC workers.

While this study of treatment integrity does not attempt to ascertain which services yielded more favorable outcomes, it does provide empirical evidence that IFPS was implemented in accordance with underlying treatment model and different from the alternative foster care services. Thus, it strengthens the internal validity of outcome research on IFPS and increases the likelihood that successful treatment can be ascribed to the IFPS intervention (Craig-Van Grack, 1997; Henggeler et al., 1997).

Data on adherence to a treatment model can be collected directly from workers or by means of observation (Gresham et al., 2000). Observation may involve unreliable interpretations by the observer while self-report may be subject to social desirability biases. Data collection in this study was accomplished by asking the workers to report on their activities. For the IFPS workers, this reporting was integrated into their routine activities and occurred regardless of the study. FC workers were interviewed retrospectively, by phone. We believe that these data collection procedures -- despite their differences -- eliminated biased reports for both conditions and yielded a reliable picture of the services provided. For instance, our findings indicate that services matched the population characteristics (e.g., substance abuse was significantly more prevalent among FC families and, subsequently, we found that more FC families were referred to drug treatment).

The focus of this study was on the structural components of the treatment. By definition, these components are easier to operationalize and measure. At the same time, the structural components represent key elements of IFPS. We examined only the components that were possible under the circumstances (cost, time, etc.). Our study did not include specific intervention strategies or techniques employed by the workers in both conditions. Even by measuring only the structural components rather than specific

intervention strategies, the findings provide a good estimate of whether the treatment as a whole was delivered according to the model as delineated in the manual.

IFPS models use a wide range of hard and 'soft' services or intervention techniques depending on the goals that workers set with the families (e.g., anger management, negotiation skills, specific parenting skills, hanging bedroom doors, cleaning kitchens, and training in budgeting, just to name a few). Because of the large number of different techniques and the variability between different IFPS models, any attempt to examine treatment integrity with regard to the specific intervention techniques would require a large sample and be very costly. Workers' difficulties with reporting detailed information on specific interventions employed also may inhibit such examination (Hayes & Gregg, 2001). Many social work interventions are as complex as IFPS and the approach described here offers a beginning point for assessing their integrity as part of larger experimental studies. Nevertheless, we agree with Craig-Van Grack's (1997) suggestion that future research should attempt to address other elements of the model such as specific intervention techniques.

In order to promote procedures for maintaining adherence to the treatment model, we suggest that agencies provide intensive initial training in the intervention procedures followed by on-going "booster" training sessions (Gresham, 1997). Treatment manuals must be sufficiently specific to allow such training and systematic recording of workers' activities. Including treatment integrity protocols as part of daily practice also will enhance adherence to the model.

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**Table 1:** Family Characteristics of the Participants in the Two Conditions

	IFPS (N=103)	FC (N=48)
Child's Gender	59.8% boys	45.8% boys
Child's Mean Age	7.4 (SD=4.5)	6.7 (SD=5.4)
Mother's Mean Age	31 (SD=7.6)	30.7 (SD=7.2)
Father's Mean Age	41 (SD=7.3)	37.6 (SD=7.2)
Caretaker's Mean Age	41.8 (SD=11.3)	41.5 (SD=11.4)
Total Household Income		
\$0	1.9%	2.1%
\$1-4,999	28.2%	29.3%
\$5,000-9,999	26.2%	29.2%
\$10,000-19,999	16.5%	14.6%
\$20,000+	21.4%	16.6%
N/A	5.9%	8.3%
Mother's Race		
African American	68.9%	42.6%
White	12.6%	27.7%
Hispanic	1.0%	2.1%
Other	2.9%	6.4%
N/A	14.6%	21.3%
Father's Race		
African American	6.3%	2.9%
White	N/A	5.8%
Hispanic	N/A	N/A
Other	2.1%	N/A
N/A	91.7%	91.3%
Mother living with child prior to hearing	6.2%	70.8%
Mother is the primary caretaker	81.6%	72.9%



Table 2: Dollar Amount Spent on IFPS Families by Type of Fund

Type of fund	Percentages of families receiving funds (N= 103)	Range (\$)	Mean (\$)	SD (\$)
Recreation	21.4	1-125	5	15
Housing- rent / deposit	19.4	16-1,400	130	302
Furniture / appliances	18.4	40-891	58	155
Groceries	18.4	4-235	12	36
Household repairs	12.6	25-611	27	93
Transportation	9.7	2-330	5	33
Substance abuse – treatment / screening	9.7	10-80	3	12
Utilities	8.7	11-1,095	33	142
Personal care items	7.8	6-138	4	17
Clothing	6.8	11-312	8	41
Legal documents	3.9	2-41	1	4
Other (e.g., day care, medications)	29.1	1-430	20	66