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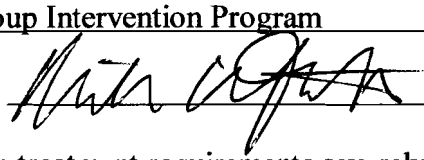
Abstract approved: 

Noncompliance with treatment requirements severely impacts the delivery of mental health services. This study investigated the relationships between family variables and compliance versus noncompliance with completing treatment requirements. The sample consisted of 83 court ordered families, 54 male and 42 female juvenile offenders and their 82 mothers and 35 fathers. The archival database consisted of the families that attended the Family Solutions program from September 2000 to May 2002. Seventy families completed the program while 13 did not comply with treatment requirements. Treatment outcome was found to be associated with increased family satisfaction. Therefore, treatment was considered valuable which rendered meaning to the attrition rates of the program. Families were assessed on demographics such as gender, race, and history of family criminality, family involvement by number of family dinners eaten together each week, family satisfaction as measured by the Family APGAR, and primary caregiver depression as measured by the Beck Depression Inventory. Families who never ate dinner together or ate dinner together four or more times were more likely to drop out of treatment than families who ate dinner together 1 to 3 times per week. No other measures were found to be significant.

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RELATIONSHIPS BETWEEN FAMILY DYNAMICS AND SUCCESSFUL COMPLETION OF A MULTIPLE FAMILY GROUP INTERVENTION PROGRAM

A Thesis

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by

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CHAPTER 1

INTRODUCTION

The client who terminates therapy against the therapist's advice represents a reoccurring setback in the mental health industry (Wiedholz & Leesa, 2000). These premature termination rates are extremely high in some studies. Walitzer, Connors, and Dermen (1999) have measured group psychotherapy dropout rates to be as high as 33 to 55%; Pekarik (1983) finds that 30 to 60% of all outpatient psychotherapy clients drop out of treatment prematurely. These rates impede the delivery of health care services and result in the loss of important resources such as time, energy, and money.

Premature termination has received much attention because of its costly nature. In terms of patient personal loss, therapist personal loss, and financial loss. Premature termination causes treatment plans to be interrupted which minimizes or delays successful client outcomes. In addition, for clients involved in group therapy, group dynamics that have been built throughout treatment can be dramatically altered when a family prematurely terminates and may compromise the quality of group sessions (Quinn & VanDyke, 2000).

Therapists' sense of self-efficacy is also affected by premature termination. Therapists could interpret the early termination as a personal failure (Medeiros, 1989). This personal loss experienced by therapists can result in low productivity and high rates of staff burnout and turnover.

Attrition is a costly expense to the mental health industry. Resources could be better spent on clients who will complete treatment. In addition, therapists are not able to be paid for dropouts; therefore, their hours are consumed and wasted on dropouts (Quinn

& VanDyke, 2002). Due to these personal and financial losses, screenings are needed to identify clients at increased risk for attrition, and then interventions could be applied that would lower these probabilities.

Family Variables

The first step of identifying potential dropouts has proven to be a difficult task (Dravitz, 1999). After a comprehensive review of the literature, Brandt (1965) has concluded inconsistent and contradictory results with premature termination research. Rather than becoming more focused, the answer could be to apply a broader lens to discover solid solutions. Research has focused on many factors (e.g., age, socioeconomic status) associated with premature termination, but the majority of the research includes only an individual's perspective. Luborsky (1971) has presented four factors influencing premature termination: patient factors, therapist factors, the match between therapist and patient, and treatment factors. While much research has attempted to tighten the definitions of these factors, the purpose of this current study was to identify the risk of premature termination based on understudied family variables.

With increasingly more mental health programs including family members as part of the treatment process, family variables need to be considered in research as well. The use of family measures is vital to provide needed information about the adolescent that otherwise would not have been revealed (Combs-Orme & Thomas, 1997; Putnins, 1984). By focusing on the whole family, the limited outlook of focusing the blame of attrition as only centered on the individual will be amplified.

More recent research is beginning to focus on the family as a system. For example, family constructs account for half of the variance of adolescent aggression,

which shows the influence each individual has on the family system. In addition, juvenile crime is strongly associated with family factors (Orpinas, Murray, & Kelder, 1999). For example, if crime rates are high in the family, then the more likely an adolescent in the family will commit crime (Quinn, Bell, & Ward, 1997). Therefore, families might also influence individual family members.

This study focused on the completion of treatment by adolescents and their families. Many adolescents with antisocial behavior are referred to treatment by their parents when the parents receive pressure from the court or school. With U.S. juvenile courts handling over 4,000 delinquency cases per day and many of these delinquents receiving treatment, understanding the potential differences between treatment completers and dropouts is important (Quinn & VanDyke, 2002).

For example, recidivism rates are lower for treatment completers rather than noncompleters or adolescents who attend sporadically (Quinn & VanDyke, 2002). Decreasing attrition rates could lower adolescent crime rates. Quinn, Bell, and Ward (1997) believe lowered adolescent crime would also be related to reduced educational failure, drug and alcohol abuse, negative peer interactions, and onset of adult crime. These potential reductions support the importance of identifying dropouts early (Dravitz, 1999) and developing preparatory and motivational interventions that could be utilized to increase the likelihood of clients completing treatment (Walitzer, Connors, & Dermen, 1999).

Family demographics. Might different family backgrounds cause some people to drop out of treatment early while others maintain attendance? Factors commonly investigated are gender and ethnicity of the identified client.

Although Chung, Pardeck, and Murphy (1995) did not find gender to be predictive of attrition, the findings may only be attributable to adults receiving individual therapy. Although there may not be a difference in the treatment completion percentage between men and women, gender could influence parental perceptions of the identified problem, or parents might have different expectations of the child based on gender. Therefore, a child's gender may influence a family's completion of therapy. Additional research on gender of adolescents is needed to more thoroughly understand this concept.

Quinn and VanDyke (2002) have studied ethnicity as a predictor of dropouts in multi-family group therapy sessions and found that white families are 83% less likely to drop out of group treatment than black families. In another study, Native Americans are more likely to drop out of treatment when compared with whites (Raines, Force, & Burdsal, 2000). There is no available research concerning other minority groups and completion of family sessions. Completion of therapy may also be partially dependent on the therapist's cultural awareness and sensitivity.

In addition to gender and ethnicity, it is also important to look at other aspects of family culture such as family history of maladaptive behavior. Many problem children have parents with problems (Olson, 1988). Family crime is known as the most important predictor of an aggressive and violent adolescent (Farrington, 1989). Offenders are usually highly concentrated in families; an arrested individual usually has had another relative arrested previously (Farrington, Jolliffe, Loeber, Stouthamer-Loeber, & Kalb, 2001). Parental criminality increases children's risk of gang membership (Sirpal, 2002). Also, as mentioned previously, recidivism rates are lower for treatment completers (Quinn & VanDyke, 2002). Due to the numerous previous reasons, families with a

history of criminal behavior are a crucial population to complete treatment but may be the most likely to discontinue. Therefore, research needs to look at this variable more closely to further understand the attrition rates of this vital population.

Family involvement. The construct of family involvement may also be vital to understanding its relationship to attrition rates and the therapy process. In fact, Siddall and Conway (1988) found the more social support the family offers the client, the less likely a client will drop out of treatment. Zagayka (1995) has narrowed family involvement to maternal involvement and has found that increased involvement during treatment improved attendance.

While the previous studies looked at involvement in the treatment setting, no available research exists to understand family involvement in the home and its relation to attrition rates. An additional measure of family involvement in the home without the influence of mental health professionals could clarify the role of family involvement. By also understanding families in their natural setting, a more consistent and authentic image of the quantity of family involvement is provided.

Family satisfaction. The family is an operational system, and premature termination is usually tied to influences in this system (Blotcky & Friedman, 1984). Family systems regulate via homeostasis in order to maintain overall stability (Steinglass, 1982). Therefore, maladaptive behavior by an "identified client" may be a result of a disruption in another aspect of the family; thereby, the "acting out" behavior could be an attempt to maintain family stability. For example, immature behavior from the "identified client" could be reinforced by family members who fear being abandoned (Blotcky & Friedman, 1984). The previously discussed studies measure family

involvement by quantity but understanding the quality of family relationships is also important. Perhaps attrition rates during family therapy are associated with whether time spent together as a family is perceived as positive or negative.

Internal family satisfaction in two studies was not statistically significant. However, non-significant trends suggest an increase in family satisfaction is related to a decrease in noncompliance and vice versa (Quinn & VanDyke, 2002; VanDyke, 2001). Further research is needed to determine if lack of significance is a methodological artifact or if it might be significant in another geographic location with a different population.

Primary caregiver mental health. When the presence of mental illness has been studied with attrition rates, Mathisen and Meyers (1984) found past mental illness positively associated with higher attrition rates. Hillis, Alexander, and Eagles (1994) found that patients with a history of deliberate self-harm are more likely to prematurely terminate treatment. In these studies, mental illness is operationalized as any past evidence of mental illness with the "identified client." However, current mental illness in the family might be more predictive since a youth's attendance is usually dependent upon their parents' current functioning in order to receive permission and guidance to attend treatment.

Current family pathology predicts higher attrition rates (Mathisen & Meyers, 1984). Venable and Thompson (1998) found that the children of caretakers with depression had higher attrition rates. Depressed parents may result in higher attrition due to the effort parents are required to exert to maintain their child's attendance in therapy, and depressed parents tend to lack the energy and motivation needed.

Depression creates significant interpersonal demands and challenges for the depressed and those residing with them (Compas, Langrock, Keller, Merchant, & Copeland, 2002). Specifically, depressed parents are more likely to display irritability with their children. Depressed parents are also likely to be overly intrusive or to withdraw from their children (Malphurs, J.E. et al., 1996). Children of depressed parents are likely to internalize problems creating such symptoms as depression or anxiety or to have externalizing disorders such as conduct problems or oppositional behavior problems (Anderson & Hammen, 1993). Beardslee, Bemporad, Keller, and Klerman (1983) reported that children of depressed parents are two to five times more likely to develop behavior problems than children of non-depressed parents. These risk factors emphasize the importance for families with depressed parents to comply with treatment requirements.

Research Question

The purpose of this study was to investigate the relationships between family variables and compliance versus noncompliance with completing treatment requirement. Based on past research, the following research question was proposed:

Research Question 1: Are there identifiable characteristics that relate to compliance versus noncompliance with treatment requirements in a multi-family group therapy intervention?

Research Question 2: Is gender associated to this compliance versus noncompliance?

Hypotheses

The present study also investigated the following hypotheses:

Hypothesis 1: African-Americans and Hispanics will be less likely to comply with Family Solutions program requirements than Caucasians.

Hypothesis 2: Families with serious illegal activity will be less likely to comply with Family Solutions program requirements than families with no history of illegal activity.

Hypothesis 3: Family members who eat dinner together more often will be more likely to comply with Family Solutions program requirements than families who eat dinner together less often.

Hypothesis 4: Individuals with a higher level of family satisfaction will be more likely to comply with Family Solutions program requirements than those with a lower level of family satisfaction.

Hypothesis 5: Depressed caregivers will be less likely to comply with Family Solutions program requirements than caregivers who are not depressed.

CHAPTER 2

METHOD

Participants

Data was drawn from an archival database that included 83 court ordered families, consisting of 54 male and 42 female juvenile offenders and their 82 mothers and 35 fathers. One of the families had four adolescent offenders who were referred to the program, one family with three adolescent offenders, and eight families had two adolescent offenders referred. The court required one parent to attend the Family Solutions program, while the program encouraged both parents to attend. The average age of the juvenile offenders was 15 ($SD = 2$) ranging from 10 to 18 years old. Ethnicity of adolescents was white (71%), Hispanic (18%), and black (5%) origin, and 6% adolescents who did not classify themselves as a specific category. Seventy of the families completed program requirements, while 13 of the families (16%) did not comply with court ordered requirements. Compliance in this study was defined as missing no more than 1 of the 10 sessions with unexcused absences and actively participating during sessions as determined by the program's facilitators. Sixteen families had received an unexcused absence, while 16 families had been given an excused absence. An excused absence was granted in cases of medical necessity as documented by a doctor's note, or other extenuating circumstances that included a death in the family and severe weather conditions.

Instrumentation

The risk assessment for use in this study included measures on family demographics, family involvement, family satisfaction, and primary caregiver depression.

The risk assessment (see Appendix A), developed by the director of the Family Solutions program in Georgia, assessed specifics on gender, ethnicity, and history of family criminality. Family involvement was assessed on a scale requesting frequency of family meals together. Data for family satisfaction on adaptation, partnership, growth, affection, and resolve was measured by the Family APGAR (Smilkstein, Ashworth, & Montano, 1982). The Beck Depression Inventory (BDI) was also included to measure depression scores from the primary caregiver (Beck & Steer, 1993). The BDI and Family APGAR are described in more detail below. Attrition rates were determined by viewing progress reports that noted rates of attendance and participation.

Beck Depression Inventory. The revised Beck Depression Inventory (BDI), a paper and pencil, self-report inventory, is designed to assess the severity of depression in psychiatrically diagnosed patients. The questionnaire requires a 5th grade reading level and consists of 21 questions. The total scores fit into categories of normal (0-9), mild depression (10-16), moderate depression (17-29), and severe depression (30-63). Since its release, it has proven to be valid for ages of 12 years, 10 months and up (Steer, Kumar, Ranieri, & Beck, 1998). A reliability estimate of .81 for 15 non-psychiatric samples has been found demonstrating high internal consistency in non-clinical populations as well (Canals, Blade, Carbajo, & Domenech, 2001). The BDI contains high content validity and discriminant validity as indicated by a meta-analysis of available research (Richter, Werner, Heerlein, Kraus, & Sauer, 1998). There is mixed evidence of stability over time for non-clinical populations. One study has reported a test-retest correlation of .90 over a two-week interval, while a comparative study found a

one-week test-retest reliability of .64 (Beck & Steer, 1993). Face validity has been reported at .90 (Keyser & Sweetland, 1985).

Family APGAR. The Family APGAR is a paper and pencil five-item rating scale developed by Smilkstein at the Department of Family Medicine, University of Washington (Smilkstein, Ashworth, & Montano, 1982). The questionnaire is designed to examine family functioning across the dimensions of Adaptation, Partnership, Growth, Affection, and Resolve in the respondent's family. These factors are rated on a 0 to 2 scale (2 = almost always, 1 = some of the time, 0 = hardly ever) with a total score between 0 to 10. Shapiro, Neinstein, and Rabinovitz (1987) reported that the Family APGAR is a valid screening test for identifying family problems in adolescents. Also, Smilkstein, Ashworth, and Montano (1982) concluded that the Family APGAR is a reliable and validated utilitarian instrument.

Procedure

After obtaining the Institutional Review Board's approval, the database was obtained from the Family Solutions intervention program. The program meets in a group setting once a week for 10 weeks, two hours per session. A curriculum manual guides the goals and objectives of the Family Solutions program, which concentrates on helping juvenile offenders and their families find solutions to prevent repeat criminal offenses and achieve personal and family well-being. The manual also explains the program's theoretical rationale (Quinn, 1998). Juvenile offenders and their families are referred by the Lyon County juvenile court. As part of the court-ordered referral, each family is required to contact the program director to schedule a family appointment. The appointment takes place at the mental health center one to three weeks before the first

session of the program. At initial contact, families sign a release of information form (see Appendix B) and the use of data collection for statistical purposes for benefit of the program is explained. Each family member then fills out the risk assessment and is given a short (approximately 15 minutes) informative interview explaining the process of the program. Participants are also made aware of the importance of completing Family Solutions in order to complete their diversion or probation requirements. Although no time limit is imposed, the testing procedure usually requires 30 to 45 min. for completion. In cases where participants are not able to read, instructions and questions are read aloud to them.

This study used an archival database created between September 2000 and May 2002. Each completed risk assessment was entered into a SPSS file by a trained program facilitator or intern. Only cases with complete data were analyzed. Data were divided into one of two categories: compliant and noncompliant. This was a dichotomous independent variable based on the operational definition of compliance.

Experimental Design and Hypotheses

The purpose of the present study was to determine if there are differences between families who are compliant versus those who are noncompliant on completing the Family Solutions program requirements, and if gender was associated to any differences. It was believed that (1) minority race and (2) serious family criminality are variables that are associated with noncompliance of completing the Family Solutions program requirements. It was also predicted that (3) increased family involvement and (4) high family satisfaction was associated with compliance to the Family Solutions

program requirements. (5) Primary caregiver depression was predicted to be associated with noncompliance of completing the Family Solutions program requirements.

CHAPTER 3

RESULTS

The research method that was used is primarily a quasi-experimental two group design. The 83 families who participated in this study were classified in one of the following groups: compliant and noncompliant.

The following comparisons were analyzed to determine if treatment had a significant positive influence. These comparisons helped define the meaning of the two groups by determining if they were compliant or noncompliant to a treatment that was successful or a treatment that was not beneficial. Recidivism rates were tracked up to four months after completion or termination and were compared by group, compliant and noncompliant, with a chi-square. A 2 x 2 ANOVA was computed to test the relationships between the intervention (pre-treatment, post-treatment) and family role (caregiver, adolescent) and the dependent variable, average Family APGAR scores.

Two primary types of analyses were performed to test the hypotheses: *t*-tests and chi squares. For Research Question 2, a chi-square was performed to test any association between rates of noncompliance (percentages) and gender category (male, female) of the adolescent. For Hypothesis 1, a chi-square was performed to test any relationship between rates of noncompliance (percentages) and ethnic categories (White, Hispanic, Black) of the adolescent. For Hypothesis 2, a chi-square was performed to test any association between rates of noncompliance and category of family crime history (none, minor, serious). For Hypothesis 3, a chi-square was performed to determine if there was a significant relationship between rates of noncompliance and the category of number of evening meals eaten together per week (never, one to three, four or more). For

Hypothesis 4, a 2x2 ANOVA was computed to test the relationship between the treatment group (compliant, noncompliant) and family role (caregiver, adolescent), and the dependent variable, average Family APGAR scores at intake. For Hypothesis 5, an independent samples *t*-test was performed to determine whether the compliant and noncompliant families differed on depression, average BDI score.

An alpha level of .05 was used for all statistical tests. A chi-square was performed between rates of noncompliance and recidivism rates. This relationship was not found to be significant, X^2 (1, N = 88*)* = *.32* within four months of termination or completion. The percentage of reoffenders within four months in the compliant group was 7.2% and in the noncompliant group was 0%.

For family satisfaction (Family APGAR scores), a 2x2 ANOVA was computed. The within subjects effect of pre- and post-treatment was significant, $F(1,146) = 15.74$, $p < .001$. Primary caregivers and adolescents who complied with Family Solutions program requirements reported an increase in family satisfaction post treatment (M = 12.22, SD = 2.36) when compared with pre treatment family satisfaction (M = 11.61, SD = 2.70). The between subjects effect of family role was also significant, $F(1,146) = 7.35$, $p = .008$, with the adolescents reporting a lower level of family satisfaction (M = 12.19, SD = 2.53) than primary caregivers (M = 11.64, SD = 2.46). The interaction between family role and the intervention was not significant, $F(1,146) = .57$, $p = .45$, with an approximate increase of 1 point for the adolescent and the primary caregiver. See Table 1 for verification.

For family demographics, two separate chi-squares were performed between rates of noncompliance and gender category and then between rates of noncompliance and

race. The relationship of gender, X^2 (1, N = 97) = .05, p = .82, and the relationship of race, X^2 (2, N = 91) = .65, p = .72, to noncompliance were not significant. These calculations did not support Hypothesis 1 or Hypothesis 2. A chi-square was also performed between rates of noncompliance and family history of criminality, which did not support Hypothesis 3. This analysis, X^2 (2, N = 93) = .84, p = .65, was not significant.

A chi-square was performed on the relationship of rates of noncompliance and family involvement (number of family meals eaten together per week in categories of 0, 1-3, 4 or more). This relationship was significant, X^2 (2, N = 95) = 7.33, p = .03 with adolescents who reported eating dinner with their family 1 to 3 times per week more likely to have complied than adolescents who reported never eating dinner together with their family or reported eating dinner 4 or more times with their family per week. These results were not consistent with Hypothesis 4; see Table 2 for verification.

A 2 x 2 ANOVA was computed to test the relationship between the treatment group and family role and the average Family APGAR scores at intake. The main effect of compliance on family satisfaction was not significant, F(1, 178) = .01, p = .93 with the compliant group's family satisfaction (M = 11.48, SD = 2.80) similar to the noncompliant group (M = 11.58, SD = 2.81). The effect of family role was not significant, F(1, 178) = 5.64, p = .25, and the interaction of family role and compliance was also not significant, F (1, 178) = 1.31, p = .25. Therefore, this did not support Hypothesis 5.

An independent samples t-test was performed to determine the relationship between treatment group and average Beck Depression Inventory (BDI) scores. The relationship between BDI scores and primary caregivers who complied with Family

Solutions program requirements ($M = 7.97$, $SD = 9.58$) and BDI scores and primary caregivers who did not comply with Family Solutions program requirements ($M = 10.38$, $SD = 9.04$) was not significant, $t(1, 68) = .45$, $p = .50$, and did not support Hypothesis 6.

Table 1

Summary of Factorial Analysis of Variance of the relationships between the intervention (pre-treatment, post-treatment) and family role (caregiver, adolescent) and average Family APGAR scores.

Source	*df*	*SS*	*MS*	*F*
Intervention	1	49.23	49.23	15.74*
Role	1	67.37	67.37	7.35*
Intervention x Role	1	1.80	1.80	.57
Within Subjects Error	146	456.58	3.12	
Between Subjects Error	146	1338.09	9.16	

*$p < .05$

Table 2

Summary of Frequencies of Number of Family Dinners Eaten Together Per Week by Compliance Group

Variable	Percentage	
	Compliant	Noncompliant
Frequency of meals together ($N = 95$)		
Never	78.9%	21.1%
One to three times	97.5%	2.5%
Four or more times	77.8%	22.2%

CHAPTER 4

DISCUSSION

While there are many studies on attrition rates (e.g., Pekarik, 1983; Walitzer, Connors, & Dermen, 1999), few of them have offered empirical support behind the importance of the treatment in which they were extracting the attrition data. Without the understanding that treatment was successful, then the attrition results may be meaningless. This study attempted to analyze treatment outcome to better understand the effect of treatment on families. There was significant evidence to show that treatment improved family satisfaction within the family when they completed treatment. While family satisfaction improved significantly for both adolescents and caregivers, this study discovered that adolescents reported a lower level of family satisfaction than caregivers. This finding encourages a thorough understanding of the processes of change that occur in treatment. When grouped together family satisfaction improved, but by dividing family satisfaction among adolescents and primary caregivers a more accurate picture of change during treatment was revealed. Both groups improved similarly but began treatment at different levels of family satisfaction.

However, this study was not able to establish a difference in recidivism rates between those who drop out of treatment and those who do not. For lack of a more accurate and consistent measure, recidivism rates were only tracked for four months after completion or termination. The juvenile court system was only able to report recidivism rates until the age of 18. Therefore, this excluded nine of the adolescents from the sample. While this study attempted to provide treatment outcome results, these results

could have provided a more accurate picture of treatment outcome if recidivism was tracked more efficiently and thoroughly.

There was significant evidence to show that treatment improved family satisfaction within the family when they completed treatment. While family satisfaction improved significantly for both adolescents and caregivers, this study discovered that adolescents reported a lower level of family satisfaction at intake than caregivers. This finding encourages a thorough understanding of the processes of change that occur in treatment because when grouped together family satisfaction improved but by dividing family satisfaction among adolescents and parents a more accurate picture of change during treatment was revealed.

In looking at demographics such as gender of the adolescent and the relationship with attrition rates, this study was consistent with previous studies that gender was not significantly contributing to attrition (Chung, 1995). Gender was examined in the family context, since it only had been evaluated in an individual context.

When looking at another demographic variable such as race, minority groups, including Blacks and Native Americans, tend to drop out of treatment more than Whites. This study's results did not agree; however, this study had a limited sample size of Blacks ($n = 4$). Therefore, this limited sample may be contributing to this discrepancy. This study's main focus was on the understudied ethnic group of Hispanics. There was not a significant difference between Hispanics and Caucasians with attrition rates. It is important to look at the Hispanic population further and discover why this minority group does not greatly contribute to attrition rates contrary to other minority groups. Possible conclusions from this study could be that Family Solutions considered the context of each

family by encouraging differences between culture to be discussed and explored, thereby supporting Hispanic families to feel included as an important dynamic to the group. However, including a measure of acculturation may have offered a further understanding of this variable. Since the Hispanic sample consisted of some families who originated from other countries, an appropriate measure that should have been included is a measure of the length of time in America to determine whether this variable actually contained two distinct types of populations. Also, it may be more accurate to indicate a specific ethnicity rather than a broad category of Hispanics.

While the history of family criminality was not found to be a factor of attrition, this may be due to limitations of this study. The history of family criminality may have been more accurately assessed by precise descriptions instead of broad categories. Objective categories, such as reporting particular family crimes, may be more accurate than utilizing a subjective measure for this variable. Suggestion for further research would be to focus on the history of family criminality within the immediate family rather than including the extended family members within this variable.

While research has shown that family involvement in therapy is a significant factor to completion of therapy (e.g., Siddall & Conway, 1988), this study utilized a program that included family members in the program. Since family involvement was already incorporated into the program, the lower attrition rates of this program when compared to other interventions may exist due to this aspect. Since family involvement in treatment was required, this study looked at family involvement outside of therapy.

In an attempt to find an accurate measure of family involvement, this study chose to measure family involvement by the number of reported family dinners eaten together

per week. Therefore, there was an assumption that eating dinner together as a family is a positive activity for all families, which may be an inaccurate assumption.

Surprisingly, this study found that family members who never ate dinner together or ate together almost every night were more likely to drop out of the program than families who ate dinner together one to three times per week. This curvilinear trend reveals that families who moderately engage in family involvement may be more likely to complete treatment. The families who never or almost always engage in family involvement may be more likely to drop out of treatment. Therefore, a possible conclusion is that a family that is able to find a balance between too much and not enough of family involvement may be an important factor of maintaining family attendance in treatment. This may be indicative of identifying particular types of family styles. For example, the families at the two extremes of this variable may fit into categories of enmeshed or disengaged families. Therefore, further research should explore whether these two particular types of families may be predictive of attrition.

Another possibility is an extraneous factor interfering with the data. An extraneous factor that may need to be examined is the amount of activities that the family is involved in. Quinn and VanDyke (2002) reported that families are more likely to complete treatment if they are involved in community activities. This study failed to identify a measure that incorporated all types of family involvement. For example, some families may not have eaten dinner together every night due to other forms of family involvement such as attending their child's school or community activities. Therefore, future research should look at measuring this variable in other ways in order to examine other types of family involvement and their contribution to attrition rates.

Family satisfaction in this study was not found to be a predictor of attrition nor has it in past studies. However, research has only looked at measuring this variable through the eyes of the Family APGAR. Therefore, another measure may reveal different results. A possible limitation of the Family APGAR is that it only contains five questions rated on a 0 to 2 scale. Therefore, the scale can only vary from 0 to 10. This offers little variation for an analysis to detect any differences among groups, especially when there is a limited sample size.

Further research should concentrate on measuring family involvement with family satisfaction to understand if there is an interaction between the two and how it may be indicative of attrition. This study attempted to measure the variables separately, and by doing so may have lost important information that may be related to attrition.

Contrary to past studies (e.g., Venable & Thompson 1998), this study found that caregiver depression was not significantly associated with attrition rates. However, it is important to note the nonsignificant trend that occurred in this study that is congruent with past research. Caregivers who dropped out of treatment scored slightly higher on the Beck Depression Inventory (BDI) than caregivers who completed treatment. In fact, the average score of the noncompliant group was in the mild depression range, while the compliant group was in the normal range. Contrary to research, this study looked at attrition rates for a court ordered program. Therefore, caregiver depression may not influence caregivers to drop out of treatment as much when the treatment is mandatory. The BDI measures had a smaller sample size than the other measures of this study; therefore, this is also important to consider when looking at this result. Further research should study this variable with court ordered programs and include larger sample sizes.

Primary weaknesses of this study included the limited sample size of the noncompliant group. There was also a limited sample size of African Americans for this study. Due to utilizing an archival database, this study was not able to make any changes that may have needed such as improving measurements or choosing variables assessed. Further research should look at utilizing more continuous and less interval data. There also was only one measure of each variable where an additional measure of each variable would have provided a more accurate depiction of the variable. An example is that recidivism rates were only tracked for four months after completion or termination. In addition, the history of family criminality was only assessed by broad subjective categories instead of by objective descriptors. There is also concern that measuring family involvement by the number of family dinners eaten together should have been analyzed before assuming that it measures family involvement. The measures were also limited to the adolescent and primary caregiver responses, and it would have been advantageous to understand the whole family context in order to control for extraneous variables.

One strength of this study was that it attempted to measure many variables possibly associated with attrition. The study assessed information from the primary caregiver instead of just the "identified client." This study attempted to measure treatment outcome, which further defined the groups: compliant and noncompliant. After assessing treatment outcome, it was found that the noncompliant group was dropping out of a beneficial treatment setting. Due to a sizeable Hispanic population, this study was able to assess their relationship to attrition when compared to the White sample, which was not found in previous research. While research has focused on family involvement

in therapy and its positive relationship with attrition, this study was able to assess a different angle of family involvement by assessing family involvement outside of treatment. Another contribution is that this study looked at depression and its relationship with a court ordered program, which was not found in previous studies either.

Therefore, the overall significance of this study is the importance of assessing treatment outcome efficiently before attempting to define compliance and noncompliance of treatment. Major contributions of this study include a new look at variables and their relationship with attrition that had not been seen in past research. These variables include the Hispanic population, family involvement outside of treatment, and primary caregiver depression in a court ordered program.

By attempting to further understand attrition rates, the clinical field might be able to screen for risk factors during intakes. By understanding variables that contribute to attrition, interventions could be employed during intake that may increase the likelihood that these clients will remain in treatment. Interventions could help alleviate the loss of time, energy, and money that attrition so often creates.

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APPENDICES

Appendix A

Risk Assessment

RISK ASSESSMENT QUESTIONNAIRE
ADOLESCENT FORM

AGE_____

RACE

1. White
2. Black
3. American Indian, Native American
4. Asian or Pacific Islander
5. Hispanic
6. Other (Specify) _____

SEX

1. Male
2. Female

85. ARE ANY MEMBERS OF YOUR FAMILY/HOUSEHOLD INVOLVED WITH THE COURT SYSTEM?
    1. No family members are involved
    2. A close family member has committed minor crimes
    3. A distant relative is heavily involved in the system
    4. A close family member has been imprisoned
    5. More than one member of the family has been involved

91. HOW OFTEN DOES YOUR FAMILY HAVE DINNER TOGETHER?
    1. Never
    2. 1 to 3 times a week
    3. 4 or more times a week
    4. Daily

Appendix B

Release of Information Form

MENTAL HEALTH CENTER OF EAST CENTRAL KANSAS

1000 Lincoln Street
Emporia, Kansas 66801
(316) 342-0548

INTERAGENCY AUTHORIZATION FOR RELEASE OF INFORMATION

Individual: _____ Parent/Lawful Custodian _____

DOB _____ Agency Securing Authorization _____

Address _____

I authorize the following persons and agencies to share information about my child. I understand that this information will be strictly confidential and will not be released to any other party without prior written consent. *This release is valid for a period of 12 months and I may cancel it in writing at any time.*

Initial the agencies authorized to share information:

Emporia Community Day Care	( )	Public/Private Schools	
Even Start	( )	_____	
Flint Hills Special Education Cooperative	( )	_____	
Lyon County Health Department	( )	Social & Rehabilitation Services	( )
Mental Health Center East Center Kansas	( )	Social Security Administration	( )
Newman Memorial Hospital	( )	Specialists, Hospitals, Clinics	( )
Parents as Teachers	( )	_____	( )
Physician(s) _____	( )	_____	( )
_____	( )	Other _____	( )
_____	( )	_____	( )

The following records may be exchanged:

	Yes	No		Yes	No
Psychological Testing Reports	( )	( )	Social/Developmental History	( )	( )
Health/Medical Records	( )	( )	Speech/Language Reports	( )	( )
Occupational/Physical Therapy	( )	( )	Individual Education Plans (EP'S	( )	( )
Other _____	( )	( )	Individual Family Service Plans (ESP's	( )	( )
_____	( )	( )	Diagnostic Educational Reports	( )	( )

_____ _____
Signature of Parent, Guardian or Lawful Custodian of Individual — Date

_____ _____
Signature of Witness — Date

NOTE: A Photostat of this authorization shall be as valid as the original

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Title of Thesis

Signature of Graduate Office Staff Member

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