THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF HUMAN DEVELOPMENT AND FAMILY STUDIES

EXAMINING PREDICTORS OF PARENT ATTENDANCE AT STRENGTHENING FAMILIES PROGRAM FOR YOUTH AGES 10-14

SANDRA LYNN BAMFORD
SUMMER 2013

A thesis submitted in partial fulfillment of the requirements for a baccalaureate degree in Human Development and Family Studies with honors in Human Development and Family Studies

Reviewed and approved* by the following:

Gregory M. Fosco, Ph.D.
Assistant Professor of Human Development and Family Studies
Thesis Supervisor

Lisa Gatzke-Kopp, Ph.D.
Associate Professor of Human Development and Family Studies
Honors Advisor

* Signatures are on file in the Schreyer Honors College.
ABSTRACT

Family attendance at evidence-based family intervention programs has been the focus of research for decades. Researchers aim to understand the entire picture of what influences parents to enroll their family in an intervention program, what brings them to the first session, and what factors influence their attendance throughout the duration of the program. Strengthening Families Program: For Parents and Youth 10-14 (SFP 10-14) is an example of a program with promising results that would benefit even more families if they could be recruited and encouraged to attend. Another major focus of current research is uncovering why fathers are so absent. The goal of this study is three-fold: to identify what factors at the baseline of SFP 10-14 influence total parent attendance at the program, to understand the process of what leads parents to attend at higher rates and lower rates, and to get a closer look at the under-present and poorly understood fathers in family interventions. A literature review on these topics shows support for the main study hypothesis that intervention readiness variables could explain why certain parents attend SFP 10-4 at different rates than other parents. After analyzing data from two waves Strengthening Families Program: For Parents and Youth 10-14 and Modified Strengthening Families Program (MSFP) at Penn State, only partial support for the hypotheses was found. Mothers’ report of interparental conflict and their perception of their parenting influence predicted their motivation to change. Due to these results, the study’s understanding of parents and why they engage family interventions is limited. More specifically, this study highlights how important fathers are to focus on moving forward in intervention research.
# TABLE OF CONTENTS

LIST OF TABLES.................................................................................................................. iii

ACKNOWLEDGEMENTS ...................................................................................................... iv

Chapter 1  Introduction ..................................................................................................... 1

Chapter 2  The Present Study......................................................................................... 16

Chapter 3  Methods .......................................................................................................... 19

Chapter 4  Results .............................................................................................................. 24

Chapter 5  Discussion ....................................................................................................... 29

Chapter 6  Limitations ..................................................................................................... 32

References ......................................................................................................................... 40
LIST OF TABLES

Table 1-1: Correlations and descriptive statistics of study variables. ...............................................34
Table 2-1: T-tests. ..........................................................................................................................35
Table 3-1: Linear Regression of Family Contextual Variables Predicting Motivation to Change..36
Table 4-1: Linear Regression of Family Contextual Variables Predicting Expectations of
  Treatment........................................................................................................................................37
Table 5-1: Linear Regression of Intervention Readiness Predicting Session Attendance.........38
Table 6-1: Linear Regression of Family Contextual Factor Predicting Session Attendance.......39
ACKNOWLEDGEMENTS

I would like to thank my thesis supervisor Dr. Gregory Fosco, for his continued guidance, patience, and insight throughout the past ten months. I have learned an immense amount about the many different areas of a research project thanks to you. I would also like to thank my honors adviser Dr. Lisa Gatzke-Kopp for her guidance. Next, I would like to thank the faculty, staff and students of the Strengthening Families Project at Penn State, including Dr. Coatsworth, for giving my so many opportunities to foster an interest in research. Finally, I would like to thank my friends and family for their encouragement and advice throughout this process.
Chapter 1

Introduction

Behavioral and mental health problems during adolescence have been at the forefront of developmental research for decades due to the long lasting impact of such behavior into adulthood. This concerning behavior warrants the creation of prevention programs targeted at decreasing use of drugs, alcohol, and deviancy, and promoting positive health behaviors (Hawkins, Catalano, & Miller, 1992). The National Academy for State Health Policy supports that adolescents are considered healthy by measures of disease, but not by measures unhealthful and risky behavior, which make up the leading cause of morbidity for the age group (Osius & Rosenthal, 2009, p. 7). Early adolescence is a risk period for experimentation with problem behaviors such as alcohol use. The national Youth Risk Behavior Survey found that in 2011, 70.8% of 9th-12th graders have had an alcoholic drink on at least one day of their life and 38.7% had at least one drink of alcohol once in the past 30 days (“Trends in the Prevalence of Alcohol Use National YRBS: 1991-2011,” 2011). Increase in alcohol use is just one example of increasing involvement in many problem behaviors such as drug use, delinquency, school drop-out, and high-risk sex. The implications of such behavior and its effects lasting until adulthood make it a crucial area to target research. Adolescents who engage in problem behavior early on are at risk for lifelong consequences. The obstacle in preventing
problem behavior lies not solely within the creation of reputable, evidence-based programs, but also getting families involved in programs to make a difference in adolescent lives on a larger scale.

Approaches to preventing and reducing this involvement in problem behavior, such as early alcohol use, according to Kumpfer and Alvarado (2003), have been effective in improving family relationships while preventing the occurrence of behavioral and mental health problems in adolescence. These approaches include interventions with positive results like the Strengthening Families Program: For Parents and Youth 10-14 (SFP 10-14). Given the evidence that intervention programs targeted at families have a positive impact on the families that participate, more families should be taking advantage of these programs. Understanding what influences parent attendance and adapting programs to fit parent preference is an area that needs to be addressed in order to overcome low attendance.

The research presented in this study will investigate the factors that lead to parent attendance at a universal intervention for families that targets prevention and reduction of adolescent risk behavior, SFP 10-14. A universal intervention like SFP 10-14 targets all members of a community and allows anyone to participate. The program is designed to benefit any type of family. Reviewing previous research on factors related to parent attendance at intervention programs will lay the framework for the approach to my study’s objectives and hypotheses. In this literature review, I will present research on the success of SFP 10-14, the obstacles researchers face in recruiting families to participate, the difficulties of low attendance and participation rates, and finally, why fathers are an area that need to be focused on.
SFP 10-14 Program Effectiveness

Strengthening Families Program 10-14 was developed at Iowa State University and has been implemented at Penn State University through the PROmoting School-community-university Partnerships to Enhance Resilience (PROSPER) Community-University Partnership. SFP 10-14 is shown to have strong benefits at the societal, individual, and family level. According to a report released in 2008 by the Prevention Research Center at Penn State University, SFP 10-14 shows a $13 million “statewide return on investment” (“Strengthening Families Program: For Parents and Youth 10-14,” 2012). The PROSPER Community-University Partnership Trial provides insight on the effectiveness of SFP 10-14 for individuals and families. This trial is evaluated at Penn State and Iowa State through the land-grant university Cooperative Extension System. The SFP 10-14 trial that is a part of PROSPER also includes Life Skills Training (LST). One study analyzed substance use outcomes for youth participants a year and a half after the start of this program (Spoth et al., 2007). Data analysis compared the intervention condition to a control condition and found that substance initiation scores were lower for the intervention group than the control; meaning that the 7th graders in the control condition initiated substance use earlier than the intervention condition. Also, new-user rates of various drugs, alcohol use, and cigarette use were lower for the intervention. Seventh graders from the intervention reported less use of marijuana, inhalants, cigarettes, and being drunk in the past year than the control group. Although Spoth et al. did not find enough evidence to support alcohol initiation use differences between intervention and control, this wide range of positive results support
the effectiveness of the program at preventing substance abuse in adolescence, at least to the extent of eighteen months in this study (2007).

Another study followed up on the same sample once they were in 10th grade (Spoth et al., 2011). For the SFP 10-14 intervention to be considered effective from a developmental viewpoint, it must reduce problem behaviors in the long term. Spoth et al.’s research on 10th graders’ report of substance abuse in intervention versus control participants found positive outcomes on all measures. A longitudinal analysis also showed slower growth in substance use for the intervention group. Due to the magnitude of these results compared to the 18-month follow up study discussed above, Spoth et al. suggest that influence of the program is even stronger over time (2011). The PROSPER project shows how SFP 10-14 is effective, although this project is combined with another drug resistance education program, LST. Thus, research on just SFP 10-14 and its success is important too.

An earlier study evaluating the Iowa Strengthening Families Program (ISFP; now often referred to as SFP 10-14) from 6th through 10th grades found very promising outcomes for this family-centered prevention program. Spoth, Redmond, and Shin (2001) report that ISFP, even though just a brief universal intervention program, has lasting effects until 10th grade. Their study found that participants of Preparing for the Drug-Free Years (PDFY) and Iowa Strengthening Families Project were faring better during 10th grade, four years post-intervention, than the control group. Results for ISFP were even stronger than those for PDFY. Students who were in the intervention group, specifically ISFP, had lower past month alcohol use, lower frequency of alcohol use, lower lifetime use of alcohol, and lower past month and lifetime use of cigarettes than those who were
in the control group (Spoth et al., 2001). Results from the earlier trials of ISFP and the more recent PROSPER project at Penn State and Iowa State validate that universal interventions implemented in a community have lasting positive effects for adolescents.

The success of SFP 10-14 in the states of Pennsylvania and Iowa has been significant and sustained over time. The current study draws from a randomized trial that was designed to evaluate a mindfulness-enhanced version of SFP 10-14 in comparison to the standard SFP 10-14 intervention and a home study control group. The mindfulness-enhanced version of SFP aims to achieve even better results than the original program. Thus, this study will include two separate versions of Strengthening Families: SFP 10-14 and Modified Strengthening Families Program (MSFP). Since the goals of this research do not relate to the differences between the programs, SFP 10-14 and MSFP will be referred to as just SFP 10-14 throughout the paper.

SFP 10-14 and MSFP have a basic structure of sessions once a week during the evening for seven consecutive weeks. Parents and children in the target age range, ten to fourteen years old, attend the program together at a community location such as a school. The sessions consist of separate parent and youth sessions, and then combined family sessions in which the parents and youth work directly together. Topics of these sessions span a wide variety of topics, including conflict resolution and communication skills. Trained facilitators implement the program according to a specific manual and engage parents and youth in finding ways to better their family relationships.

Findings from past research on SFP 10-14 provide evidence to support that more communities should be implementing the program in order to take advantage of the benefits. Additionally, more families within each community should be encouraged to
attend and engage in a program that can combat issues faced by parents and children during adolescence.

**Barriers to Recruitment**

The demonstrated effectiveness of family intervention programs is weakened by the inability to recruit substantial numbers of families to participate. One study found that only 31% of families contacted to participate in a universal prevention program responded to recruitment efforts (Heinrichs, Bertram, Kuschel, & Hahlweg, 2005). Even full participation of this group of families would leave unanswered questions about the remaining 69% of the population. A low response rate from families diminishes the ability to generalize results from research to the population of interest. It also prohibits non-responding families from receiving education, support, and advice that they could benefit from.

The most recent trial of SFP 10-14 at Penn State attempts to increase response rates at their Central Pennsylvania sites from recruitment efforts by offering incentives to homerooms for returning information slips about the program. The homeroom at one school that returns the most information slips about the program receives a breakfast party. Each child that returns a slip is also entered in a drawing to win a prize. Even if parents are returning a slip and they mark no interest in the program, they are still responding in some way to recruitment efforts, which is marginally better than no response at all. The slips also do not bind parents into participating in the program, but allow them to receive more information. Research on different samples from earlier collection of data on SFP 10-14, in some of the same communities as my research, found that only 17% (2650 family members) of all eligible families across 14 communities
signed up to participate in SFP 10-14 (Spoth et al., 2007). As shown by the statistics on earlier cohorts of participants for SFP 10-14, even rigorous recruitment efforts like the ones described above do not necessarily yield high participation rates from entire communities. A participation rate as low as 17% highlights the truism: even the most effective programs are only helpful to the families that participate. Further complicating this matter, it is common for those participating families to have inconsistent attendance and few families attend a majority of sessions. Inconsistent attendance can lead to a lower dosage of the intervention, and thus, potentially leaves the family less likely to experience change.

Factors Associated With Low Attendance

Barriers to Participation and Attendance

Once families are recruited to participate and agree to be involved with an intervention, a second hurdle faced by prevention science is the need to address the barriers that families face with attendance. It is not uncommon for families to have poor attendance at family sessions. Programs’ effectiveness is lessened when families only attend half of the sessions because this means that they would only receive a fraction of the overall curriculum. This has motivated prevention scientists to try to identify barriers to family attendance at intervention sessions. Kazdin, Holland and Crowley (1997) developed an important measure of perceived barriers to attending intervention sessions, which has proven valuable in predicting the probability of attendance across multiple studies. Kazdin and Wassell (1999) state that, “families who perceive barriers are likely to be less involved in and committed to treatment and, in general, less likely to engage in
or carry out treatment prescriptions” (p. 161). One study in particular found perceived barriers to independently predict attendance when controlling other family factors (Lee, August, Bloomquist, Mathy, & Realmuto, 2006). Parents listed barriers from multiple domains (stressors and obstacles, treatment demands and issues, perceived relevance of treatment, relationship with the therapist) as barriers for their own participation and practical barriers, i.e. soccer practice, as barriers to their child’s participation (Kazdin & Wassell, 1999; Lee et al., 2006). Research has demonstrated that parents’ perception of barriers to participating predicts attendance at an intervention.

Although implementing a different intervention, the study cited above by Lee et al. (2006) found a way to achieve high rates of attendance by overcoming barriers to participation. Specifically, the Fast Track Program offered transportation, traveled to the home of the participant when possible for data collection, provided food and refreshments at sessions, gave cash payments for attendance, and established positive relationships with parents regardless of their rate of participation (Lee et al., 2006). These measures to increase participation by reducing barriers led to an over 70% attendance rate at the program (Lee et al., 2006). Although SFP 10-14 utilizes nearly every one of these strategies, attendance rates are not perfect. In fact, an earlier group of cohorts of SFP 10-14 found 90% of families attended at least 4 sessions (Spoth et al., 2007). Although this could be interpreted as a high rate of participation, participants were attending just one session greater than 50% attendance and missing up to three. It is important to note that although the methods of reducing barriers led to increased attendance at a different program, these methods are a costly expense that does not guarantee participation at
every single session. Researchers make an expensive and risky investment to implement these strategies in hope to increase attendance and participation.

**Perceptions of Parenting Influence and Attendance**

Parents who believe that they can be influential in their child’s development are more likely to attend interventions. Three studies illuminate how this process manifests in different situations. Spoth and Redmond (1995) found that parents who saw their child as vulnerable to teenage problem behaviors and saw teenage problem behaviors as severe were more likely to intend to enroll in a program. King and Elder (1995) found that grandparents who perceived themselves as influential were more likely to be involved in their grandchildren’s lives. This study shows a different pathway of perceived influence, but is related to this research when considering that the general concept of involvement is related to session attendance. Finally, Gerdes et al. (2007) found that parenting efficacy, understood as a parent’s belief that they can make a difference in their child’s life, can factor into parents’ motivation to change and desire to attend an intervention. Based on these studies, this research will examine if parents with higher levels of perceived influence over their child are more likely to attend the program more often than parents with lower levels of perceived influence. Another important aspect of the family to examine besides the parent-child dynamic is the relationship between the parents of the child.

**Interparental Conflict and Attendance**
Conflict in the co-parental relationship may be an important predictor of attendance. Perhaps parents with difficulties in their family may be more motivated to attend intervention sessions. Evidence is found in a study examining family conflict and parent engagement in a family-centered prevention program for adolescents (Connell, Dishion, Yasui, & Kavanagh, 2007). This study uncovered a relationship between youth report of family conflict and engagement in the program in that higher reports of family conflict led to higher engagement in the program (Connell, Dishion, Yasui, & Kavanagh, 2007). Although my present study investigates report of parental conflict and not family conflict, the study discussed is still relevant for laying the ground work of how problems within the family affect engagement. The proposed idea is that higher levels of conflict in the family lead to a family’s stronger desire to learn how to reduce conflict and thus, attend a program that will help them do so. Kerig (1996) developed the Conflict and Problem-Solving Scales to assess how marital quality affects child development. Kerig’s study showed that parent and child report of child symptoms was related to parental conflict (1996). Accordingly, conflict in the family affects the child, involves the entire family, and higher levels of it may lead to higher engagement in interventions.

Motivation to Change and Attendance

One variable of interest in this study is parent report of motivation to change. Parents who are motivated to change their parenting or improve family relationships may be more likely to seek out intervention services. Nock and Kazdin (2005) proposed that removing barriers and increasing parent motivation for treatment would increase attendance and adherence to treatment. Using a tool called the PEI, results showed that
increasing parent motivation led to better attendance at treatment (Nock & Kazdin, 2005). Though their research was conducted on another sample and intervention, these results support the significant impact parents’ motivation has on session attendance. Another study investigated how caregiver motivation to change was related to family response of the Family Check Up Model, an evidence-based intervention implemented in the Pacific Northwest. Fosco, Van Ryzin, Stormshak, and Dishion (in press) used a three-item measure of parent motivation to change and proposed that it would mediate the relationship between family contextual factors and response to treatment. At one-year follow-up, motivation to change was related to better intervention response. Again, although a different intervention and different sample, this research shows that response to evidence-based treatment is affected by a parent’s report of motivation to change (Fosco et al., in press). This present study will examine attendance instead of treatment response, but based on the findings from Fosco (in press), also propose motivation to change as a mediator between family contextual factors and parent attendance at SFP 10-14.

**Expectations of Treatment and Attendance**

Prior to beginning an intervention, a parent’s expectations of it may undermine or facilitate their desire to attend; a parent with low expectations may be less likely to attend, or a parent with high expectations may be more likely to attend. Research by Hindman, Brooks, and Van (2012) found that a parent’s preferences for a hypothetical program influenced their intention to enroll in the same hypothetical program. Spoth found that intention to enroll in a parenting program predicted actual attendance (1995).
A related concept to preference for treatment is a parent’s perceived value of treatment. One study by Nock, Ferriter, and Holmberg (2006) found that a Credibility/Expectations Questionnaire for parents predicted treatment participation. The researchers state that their findings, “suggest that the beliefs parents have about treatment very early on in the treatment process can have a significant impact on treatment participation and potentially on treatment outcomes” (Nock, Ferriter & Holmeberg, 2006, p. 35). They also found that beliefs about treatment independently predicted treatment participation when controlling for child and parent factors like age, gender, ethnic minority status, and public assistance (Nock et al., 2006). This present study does not use the Credibility/Expectations Questionnaire, but a similar set of questions that aim to measure the same construct. Interestingly, the authors also point out that a parent’s expectations and credibility of treatment are related to motivation, but not in the same way. Instead, these two variables make up a broader concept of readiness to participate in treatment (Nock et al., 2006). This present study will focus on both expectations of treatment and motivation to change and their relation to attendance.

The Theory of Parent Involvement and the Health Belief Model

Two important theoretical frameworks that inform our thinking about why parents participate in interventions are the theory of parent involvement and the health belief model. The theory of parent involvement by McCurdy and Daro (2001) organizes four domains of parent enrollment and involvement in family support programs: individual characteristics, provider attributes, program characteristics, and neighborhood context. Within the domain of individual characteristics, this theory argues that parents with a
higher perceived need, higher cost benefit ratio, and readiness for change will have higher involvement and more positive attitudes toward service. The current study builds on this framework by including parents’ perceptions of the value of treatment and motivation to change as predictors of attendance.

The health belief model emphasizes intentions to attend as a critical predictor of actual attendance at universal parent training programs (Thornton & Calam, 2011). Researchers investigated whether or not constructs of the health belief model, in that parents are more likely to engage if they think they will be negatively affected by a negative problem and if benefits outweigh costs, predicted intention to enroll and actual attendance. All four constructs of the model—perceived susceptibility, perceived severity, perceived barriers, and perceived benefits—significantly predicted intention to enroll and actual attendance. The current study builds on this view by considering how perception of parenting influence, perceived barriers, and perceived value of treatment relate to session attendance. The theory of parent involvement and the health belief model guide the logical framework and support the hypotheses of this paper.

Father Engagement in Family Interventions

The successful results of a program like SFP 10-14, despite low recruitment rates and problems with attendance, are unfortunately based on a loose definition of ‘families’ attending the program. Fathers attend at a much lower rate. Beginning in the 1980’s, published research showed that fathers attended therapy and parent training sessions less than mothers and because of this, conclusions about these programs were based mostly on samples of mothers (Budd & O’Brien, 1982). Specifically, researchers reviewed
parent-training research and found that only 97 eligible fathers participated among 747 participating families (Budd & O’Brien, 1982). The focus began to shift to including dads in all programs and treatment for families to understand what effect their role had on family outcomes. Three studies will be reviewed to highlight the unclear findings in recent research.

A study by Bagner and Eyberg (2003) investigated the role of fathers in treatment gains immediately after treatment and at a 4-month follow-up. When compared to highly involved-father families, lowly involved-father families were found to have a rapid decline in treatment gains. Involved-father families reported maintenance of treatment gains. A unique feature of this study was the high involvement and attendance rate of fathers, which may have influenced the differences more strongly. Still, this study shows that fathers have a role in the process of treatment and affect outcomes, although the mechanism through which that occurs is still unknown (Bagner & Eyberg, 2003). A meta-analysis of father participation in parent training also found that parenting interventions had stronger effects on child outcomes when fathers participated in the training (Fabiano, 2007). However, these differences between father-present and mother-only groups diminished at follow up. This study also found different responses to treatment among mothers and fathers. Treatment gains immediately after treatment, parenting behavior improvement, and positive perceptions of parenting, were all higher for mothers than fathers. The authors suggested designing programs to meet fathers’ preferences (Fabiano, 2007).
A third study adds to the complexity of findings about including fathers in interventions. Fletcher, Freeman, and Matthey (2011) investigated whether the Triple-P Positive Parenting Program improves parenting for mothers and fathers. Like SFP 10-14, Triple P is an empirically supported intervention with a strong evidence supporting its success. However, this article points out that the self-reported improvements in parenting were not separated by mother and father, and when separated, mothers reported Triple P having a significantly greater effect on their parenting than fathers. The authors also call to question the portrayal of positive results of these kinds of interventions on ‘parenting’ if ‘parenting’ really means strong positive effects for mothers. Thus, the gender separation for mothers and fathers is necessary across the board, from data analysis to advertisements about the successes of programs. Reviewing the literature on fathers’ roles in interventions and therapy shows that mothers and fathers respond differently to treatment. The process through which this occurs is still unclear and research is needed to understand how fathers can benefit more from evidence-based programs. One necessary component to understanding this is also to understand what process leads to fathers attending interventions at different rates than mothers, a main goal of this study.
Chapter 2

The Present Study

The goal of the present study is to understand the factors that relate to mother and father intervention attendance. My research aims to understand if and how mothers and fathers differ on measures of interparental conflict, perceived barriers to participating in SFP 10-14, perceptions of their parenting influence, motivation to change, perceived value of treatment, and session attendance. Past research has not answered how parental perception of influence on their child relates to intervention attendance. However, parents’ perceptions of barriers and levels of conflict within the family affect their intervention attendance. These three constructs represent family contextual factors in that families possess these beliefs and traits prior to participating in SFP 10-14, and they give a picture of what is going on in the family. This study also aims to understand what explains the relationship between these contextual factors and attendance at SFP 10-14. It is important to uncover what factors may influence how interparental conflict, barriers to participate, and perceived value of treatment could lead to lower or higher rates of attendance. I propose that motivation to change and perceived value of treatment mediate the relationship between the contextual factors and session attendance based on the research I have analyzed in this review.
Aim 1

The first aim of this study is to understand what predicts intervention readiness (motivation to change, expectations of treatment) for mothers and fathers before they enroll and attend SFP 10-14 sessions. As shown in the literature review, understanding parents before they enroll in a program is important in how research can adapt programs to fit parent preferences. My research aims to explore how family factors that exist before the intervention at a certain level could influence their motivation to change their family and their expectations of SFP 10-14.

Hypothesis 1

Family contextual factors such as parent biological relationship to the child, interparental conflict, perception of parenting influence, and barriers to participate will significantly predict intervention readiness. Interparental conflict and perception of parenting influence will strongly predict motivation to change. Barriers to participate will predict lower levels of expectations of treatment.

Aim 2

The second aim of this study is to understand the relationship between intervention readiness and session attendance among mothers and fathers. Understanding a possible relationship between these variables would show us how variables measured at baseline (motivation to change and expectations of treatment) influence parent behavior (session attendance) across the seven sessions of SFP 10-14.

Hypothesis 2
Scores on intervention readiness, motivation and expectations of treatment, will significantly predict session attendance. Highly motivated parents with high expectations of treatment will have the highest attendance rates.

**Aim 3**

The third aim of this study is to understand what family contextual factors among mothers and fathers predict session attendance once families are enrolled in SFP 10-14. Previous research, as explained in the literature review, has shown that certain characteristics of families may be related to treatment response.

**Hypothesis 3**

Parent relationship to child, perception of parenting influence, interparental conflict, and barriers will significantly predict session attendance. Barriers will most strongly predict session attendance in that a parent who perceives more barriers to participate will attend less.

**Aim 4**

The fourth aim of this study is to understand if intervention readiness explains the relationship between family contextual factors and session attendance. Intervention readiness variables could be the important link between contextual factors and attendance that provide more insight into understanding what predicts parent session attendance.

**Hypothesis 4**

Intervention readiness variables (motivation to change, expectations of treatment) will explain the relationship between family contextual factors (parent residential status, barriers to participate, interparental conflict, and perceptions of parenting influence) and session attendance.
Chapter 3

Methods

Participants

Recruitment for SFP 10-14 occurred in public middle schools in a rural Pennsylvania college town. Homerooms that returned the most completed fliers for the program were given a pizza party. Parents were then mailed information about the program according to the interest level marked on the recruitment cards handed out in homeroom. Once they gave consent to participate in the study, the families completed family packets sent through the mail. 55 fathers and 91 mothers returned baseline surveys from Cohort 5 and Cohort 6 of the study. Over 90% of the mothers and fathers in the sample, and 80% of youth, were of white ethnicity, making the sample lack racial diversity. The mean yearly income of the families was $106,396 and the median was $49,000. The average age of the child in the sample was 12.1 years old. While the sample lacks diversity in regards to race, it is a considerably diverse sample in regards to parent educational level. For example, 22.2% of mothers and 36.5% of fathers had a high-school education only; while 28.9% of mothers and 26.9% of fathers had a four-year degree. The data analyzed in this study originated from surveys sent out to families before they were assigned to a treatment condition. Three treatment conditions existed: home study
(control), SFP 10-14 (treatment), and MSFP (treatment.) Parents assigned to treatment conditions were also sent bi-weekly surveys throughout the intervention and post intervention surveys. Families received small rewards for mailing back the surveys. All data analysis for this study, except session attendance, focuses on measures from the baseline surveys.

To review, SFP 10-14 and MSFP are comprised of once weekly sessions across seven weeks. Parents and children attend separate sessions and combined family sessions in one evening at the program. MSFP is a modified version of the program that utilizes in its curriculum mindfulness in parenting. Because the composition of the sessions is similar in terms of length and general content, session attendance at MSFP and SFP will be analyzed together and not separately.

Measures

Four separate variables make up the broader variable named family contextual factors: parent residential status, barriers to participate, perceptions of parenting influence, and interparental conflict.

**Parent residential status**

This item came from the first question on the survey that asked each parent to designate their residential status as adoptive/biological, non-biological or step parent, relative or family friend, or none of these. Eighty-nine percent of the mothers and 74.5% of the fathers in the sample were the biological or adoptive parent of their child. 2.2% of the mothers and 14.5% of the fathers were the non-biological or step parent of the child. 6.6% of the mothers and 7.3% of the fathers were a relative or family friend. 2.2% of the mothers and 3.6% of the fathers marked *none of these.*
**Barriers to participate**

Ten questions on the baseline survey asked parents about the barriers to participate in the SFP 10-14 intervention. Kazdin and colleagues’ (1997) scale on barriers to treatment and premature termination from child therapy was used. This scale included barriers from four previously identified key domains: stressors and obstacles, treatment demands, perceived relevance, and relationship with participants and leaders of the intervention (Kazdin et al., 1997). Caregivers rated items on a five-point scale ranging from *strongly disagree* to *strongly agree*. An example item from the domain of stressors and obstacles is, “time conflicts (work, child activities, etc) make it difficult to attend.” An example item from the domain of treatment demands is, “attending will be a good use of my time.” An example item from the domain of perceived relevance is, “I feel confident about my parenting, there is no reason to attend.” An example item from the domain of relationship with participants and leaders of the intervention is, “the group facilitator will be knowledgeable.” Two questions were not included in the barriers scale for this study because of their impact on reliability, leaving eight items in the scale. Scores from each question were averaged together to create a single item measuring a parent’s perception of barriers. A higher score on this measure meant that the parent perceived more barriers to treatment. Reliability for mother ($\alpha=.64$) and father ($\alpha=.64$) was adequate.

**Perceptions of parenting influence**

Parents answered seven questions on a five-point scale ranging from *strongly disagree* to *strongly agree* about their perception of their parenting influence on their child, ranging from, “how much do you think you can help your child avoid drug use” to
“how much do you think you can help your child develop his or her talents” (King, 1995). The primary investigator adapted the original scale to include three questions about the parent’s overall influence on the child. An example item from this group of three questions is, “I can have a positive effect on my child’s life”. Scores from each question were averaged to create one measure of perceptions of parenting influence. A higher score on this measure meant that parents perceived a greater influence over their child. Reliability for mother ($\alpha=.85$) and father ($\alpha=.93$) was acceptable.

**Interparental conflict**

Parents ranked on a four-point scale how often they and their partner used a strategy to handle a disagreement. They filled in two sections regarding their behaviors and their partner’s behavior in separate columns. The scale ranged from 0 (*never*), 1 (*rarely*), 2 (*sometimes*), and 3 (*always*). The four items included in the construct for this study came from the Conflicts and Problem-Solving Scales (Kerig, 1996). Reliability was acceptable for mothers ($\alpha=.85$) and fathers ($\alpha=.76$).

Two scales were used to capture key constructs related to intervention readiness. These scales measured caregivers’ motivation to change and their expectations about the intervention. These two scales are described below.

**Parent motivation to change**

Three questions on a ten-point scale made up this measure, ranging from *no change needed*, *thinking about change*, *want to change*, *taking action to change*, and *working hard to change*. The questions asked about desire to see a change in child behavior, parenting, and family interactions (Fosco, VanRyzin et al., in press). An example question is, “How much would you like to change your parenting?” The three
questions were averaged together to create an overall motivation score, with higher scores meaning parents were more motivated to change. Reliability was acceptable for mothers ($\alpha=.85$) and fathers ($\alpha=.89$).

**Parent expectations of treatment**

Fourteen items on the survey provided information on a parent’s expectations and perceived value of the program. This scale is a modified version of the Treatment Evaluation Inventory: TEI (Kazdin, 1980). Seven questions from the TEI were used based on Kelley, Heffer, Gresham, and Elliot’s factor analysis (1989). Language and tense of the questions were changed to reflect the setup and timing of SFP 10-14, such as changing “treatment” to “program” in each question. An example item from these seven items is, “I believe this program is likely to be effective.” The primary investigators created an additional seven items based on the TEI. An example item from these items is, “Sessions will keep my interest.” Participants responded on a five-point scale ranging from *strongly disagree* to *strongly agree*. A higher overall score on the average of all fourteen statements meant parents had higher expectations of the treatment. Reliability was good for mothers ($\alpha=.92$) and fathers ($\alpha=.97$).

**Session attendance**

Program facilitators recorded attendance at each of the seven sessions separately for mother, father, and youth. The attendance variable ranged from 0, never attending the program, to 7, attending every session.
Chapter 4

Results

Paired-samples t-tests were conducted to compare the scores on all variables between mothers and fathers. Results are presented in Table 1. Mothers and fathers did not differ on all but two of these scales. Mothers (M=3.97, SD=.36) reported having higher positive expectations of the value of the intervention than fathers (M=3.72, SD=.61), on average (t(49)=2.76, p=.01). Mothers’ attendance rate (M=5.22, SD= 2.07) was significantly higher than fathers (M=3.6, SD=2.55), on average t(36)=4.85, p=.00). Mothers and fathers scored (M=5.96, SD= 2.34);(M=5.68, SD=2.66) similarly on the measure of motivation t(50)=1.02, p=.31. Other comparisons indicated that mothers and fathers did not differ on their perceptions of their parenting influence, perceived levels of interparental conflict, and barriers to participate.

Means and standard deviations of all variables are presented at the bottom of Table 2. Correlations between all variables are presented in Table 2. Five significant correlations support the hypotheses. Mothers who perceived more barriers to participating also tended to have lower expectations of treatment (r= -.36, p<.01). Mothers who perceived a greater influence of their parenting tended to have high expectations of treatment (r= .29, p<.01). Mothers who had higher motivation to change tended to have higher ratings of interparental conflict (r= .33, p<.01). Mothers who
reported higher levels of interparental conflict reported less influence of their parenting ($r = -.26$, $p < .05$). Finally, fathers who perceived more barriers tended to have a lower total number of sessions attended ($r = -.37$, $p < .05$).

**Aim 1: Predicting Intervention Readiness**

The first aim of this study was to understand what predicts intervention readiness for mothers and fathers before they enroll and attend SFP 10-14 sessions. To address Aim 1, four linear regression models were constructed to examine predictors of mothers’ and fathers’ intervention readiness, in relation to motivation to change and expectations of treatment. As shown in Table 3, the model predicting mothers’ motivation to change yielded a good fit ($R^2 = .19$, $F(4, 67) = 3.97$, $p = .01$). In this model, mothers who reported feeling like they were influential in their parenting had lower levels of reported motivation to change ($\beta = -.23$, $p = .05$). However, mothers who were experiencing higher levels of interparental conflict tended to report higher levels of motivation to change ($\beta = .26$, $p = .03$).

The same regression was computed for fathers’ motivation to change. This model also did not yield a good fit with the data ($R^2 = .06$, $F(4, 48) = .76$, $p = .56$). Interestingly, no predictors in this model were statistically significant. This suggests that these predictors may be less salient for fathers.

As shown in Table 4, two more regression models were computed to predict mothers’ and fathers’ expectations of treatment. The model predicting mothers’ expectations of treatment yielded a good fit ($R^2 = .22$, $F(4, 67) = 4.61$, $p = .00$). Mothers who reported feeling like they were influential in their parenting had higher levels of
reported expectations of treatment ($\beta = .27, p = .02$). Also, mothers who perceived more barriers to treatment reported lower levels of expectations of treatment ($\beta = -.31, p = .01$).

The same regression was computed for fathers’ expectations of treatment. The model did not yield a good fit with the data ($R^2 = .07, F(4, 48) = .85, p = .50$). Once again, no predictors in this model were statistically significant. This suggests that these predictors may be less salient for fathers.

Thus, the hypothesis for Aim 1 was partially supported because interparental conflict and perception of parenting influence predicted motivation to change for mother. Mothers’ report of barriers to participate also predicted lower levels of expectations of treatment. However, parent residential status was never a significant predictor and both models did not yield a good fit for fathers.

**Aim 2: The Relationship Between Intervention Readiness and Session Attendance**

The second aim of this study was to understand the relationship between intervention readiness and session attendance. Separate linear regression models were estimated for mothers and fathers. The models did not yield a good fit for mothers ($R^2 = .02, F(2, 61) = .74, p = .48$) or fathers ($R^2 = .00, F(2, 28) = .05, p = .95$). As shown in Table 5, no significant relationships were found. Therefore, my hypothesis was not supported and intervention readiness variables were not significantly related to session attendance.

**Aim 3: Predicting Session Attendance**
The third aim of this study was to understand what family contextual factors predict session attendance once families are enrolled in SFP 10-14. This aim was investigated by performing two linear regressions among mothers and fathers with family contextual factors as the predictors and session attendance as the outcome. The models did not yield good fit for mothers ($R^2 = .15, F(4, 45) = 2.04, p = .11$) or fathers ($R^2 = .15, F(4, 26) = 1.15, p = .36$). As shown in Table 6, none of the analyses yielded significance except for father barriers predicting session attendance ($\beta = -.39, p = .05$). It is important to note that the regression equation was not significant for fathers. Due to these results, the third hypothesis was not supported.

**Aim 4: Uncovering Possible Mediation**

The fourth aim of this study was to understand if intervention readiness explains the relationship between family contextual factors and session attendance. For full or partial mediation, the independent variable should significantly predict the dependent variable. In this study, this would be family contextual factors and session attendance. These regressions were not significant for mothers ($R^2 = .15, F(4, 45) = 2.04, p = .11$) or fathers ($R^2 = .15, F(4, 26) = 1.15, p = .36$). Additionally, the proposed mediator should significantly predict the dependent variable. In this research, the proposed mediator of intervention readiness did not predict session attendance for mothers ($R^2 = .02, F(2, 61) = .74, p = .48$) or fathers ($R^2 = .00, F(2, 28) = .05, p = .95$). Further, the independent variables should significantly predict the proposed mediator. This research found that family contextual factors predicted both intervention readiness variables for mothers’ motivation to change ($R^2 = .19, F(4, 67) = 3.97, p = .01$) and expectations of treatment ($R^2$...
= .22, F(4, 67) = 4.61, p =.00). Also, family contextual factors did not predict either intervention readiness for fathers’ motivation to change (R² = .06, F(4, 48) = .76, p =.56) or expectations of treatment (R² = .07, F(4, 48) = .85, p =.50). Finally, to uncover mediation, the independent variable and the mediator would have been entered into a regression equation and the independent variable would no longer significantly predict the dependent variable. Due to the non-significance of so many regressions, the test for mediation could not be carried out and the fourth hypothesis was not supported.
Chapter 5

Discussion

This research aimed to understand the process underlying parent attendance at SFP 10-14 in Central Pennsylvania communities. Based on past research, perceived value of treatment and motivation to change were hypothesized to predict session attendance. This study drew from previous research that demonstrated family characteristics, including interparental conflict, perception of parenting influence, and perceived barriers to participating, predicted parent’s attendance rates at intervention sessions, yet questions remain about how these processes may be similar or different for mothers and fathers. Therefore, this study investigated how each of these constructs correlated with mothers’ and fathers’ total number of session attended across the SFP 10-14 program. Parents’ motivation to change was tested as a mediator of the relationship between family contextual factors and session attendance; and parents’ perceptions of the value of treatment was also tested as a mediator of the association between family contextual factors and session attendance. After conducting multiple linear regression models, only partial support was found for one of four hypotheses. There was no evidence for the mediating role of either parent motivation or caregivers’ perceptions of the value of treatment.

Given the research on the effectiveness of SFP 10-14 in reducing drug use and alcohol use long term, this investigation was guided by the premise that recruitment efforts should reach all possible participating families and then that families need to
attend most of the program in order to gain the most information and insight. Because the program is found to have such promising long term effects even when 90% of parents are attending about 50% of the time, the possibility of even stronger long term effects with higher attendance rates is appealing. Tentatively, if a given community can recruit an increased number of families and has parents who attend nearly every session, the intervention would be considerably more successful. This is a core issue of prevention and intervention implementation that needs a viable solution. One method to solving this issue would be to understand what kind of parent, prior to even beginning the intervention, is likely to attend at higher rates than another kind of parent. This research used surveys parents filled out prior to attending the program to uncover this phenomenon across variables of interparental conflict, perception of parenting influence, perceived barriers to participate, motivation to change, and perceived value of treatment. Although significance was only found between family contextual variables and intervention readiness variables and not variables predicting attendance, there is at least some insight into the issue.

The current findings show how mothers’ motivation to change at baseline is influenced by baseline levels of interparental conflict and perception of parenting influence. These results are interesting because they suggest that mothers’ are influenced both by their parenting and their partner in their motivation to change. Also, mothers’ higher report of barriers to treatment at baseline was related to low expectations of treatment. This finding is important for designing intervention programs to reduce barriers to participation even further so that mothers, and parents in general, could potentially have higher expectations of treatment.
Another aim of this study was to understand what leads to different rates of mother and father attendance. Some important differences emerged in the paired samples t-tests. Specifically, fathers attended approximately two fewer sessions than mothers on average. In addition, fathers reported that they perceived less positive value of treatment prior to participating in the program. Interestingly, mothers and fathers did not differ in their reports of motivation to change, perception of parenting influence, interparental conflict, and barriers to participate.

These results point to two important areas for research on fathers. First, the current findings support the growing body of evidence that shows fathers participate less than mothers, which is the basis for this project. Thus, fathers are still less active in universal family interventions as recently as the Fall 2012 cohort used in this sample, meaning that the problem is perpetuating and needs attention. Second, finding that fathers reported less positive value of treatment provides preliminary explanation for why they may not attend as much as mothers, although my regression analyses cannot provide evidence for this claim. However, it is still important to consider this finding in the context of SFP 10-14 because even before attending any sessions, fathers view the intervention differently than mothers. In order to increase fathers’ perception of the value of evidence-based, effective programs like SFP 10-14, the portrayal of the importance of fathers in this process of change and their positive contribution to the family unit must be emphasized. As previously described, most findings report positive results for mothers and largely ignore fathers or the differences between mother and father experiences in interventions. Fathers may need to be targeted differently beginning with potentially different recruitment efforts that focus on fathers’ value in the intervention.
Chapter 6

Limitations

This study has several limitations. First, the participants in this research represent a limited scope of geographical diversity and variability on other factors such as racial minorities. Using this kind of sample limits the ability to generalize results on a national level, or even in an urban setting, because these families reside in predominantly rural areas. Another limitation is the inability to find any significant relationships in the linear regression models for fathers. The sample size for fathers was half the size of mothers and dropped even lower once families in the control condition were not considered for attendance. Encouraging more fathers to participate in SFP 10-14 would alleviate this concern in future research. Father participation in interventions is at the center of parenting intervention research and guided the premise of this study. According to Phares, Fields, Kamboukos, and Lopez (2005), research should continue to focus on how to best recruit and retain fathers for family interventions and research.

An important limitation of this study is also the missing causal link and the missing developmental viewpoint. This study could not investigate causal relationships based on the structure of data collection and methods. The structure of this research did not allow for a developmental lens, or seeing the variables change over time, because only total number of sessions attended was included. It is important to acknowledge the variability that likely occurs across the entire intervention, in attendance, engagement,
and other constructs. This variability gives more insight into change over time than does a single measure of session attendance. Future research should focus on the process of change throughout the course of SFP 10-14 to uncover this phenomenon. Ultimately, my study sets the groundwork for future research on parent involvement in an intervention such as SFP 10-14 across time. Ideally, this research will uncover pathways that will explain how to boost intervention effectiveness for more families.
Table 1: Correlations and descriptive statistics of study variables

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
<th>12.</th>
<th>13.</th>
<th>14.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Mother POPI</td>
<td></td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Father POPI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mother motivation</td>
<td></td>
<td></td>
<td>-.17</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Father motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.38**</td>
<td>-.01</td>
<td>.70**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Mother barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.06</td>
<td>.08</td>
<td>-.15</td>
<td>-.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Father barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.08</td>
<td>.11</td>
<td>-.03</td>
<td>-.14</td>
<td>.34*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Mother PVOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.29**</td>
<td>.12</td>
<td>.27*</td>
<td>.17</td>
</tr>
<tr>
<td>8. Father PVOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.14</td>
<td>.06</td>
<td>.14</td>
<td>.23</td>
</tr>
<tr>
<td>9. Mother interparental conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.26*</td>
<td>-.11</td>
<td>.33**</td>
<td>.48**</td>
</tr>
<tr>
<td>10. Father interparental conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.10</td>
<td>-.25</td>
<td>.24</td>
<td>.17</td>
</tr>
<tr>
<td>11. Mother residential status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.08</td>
<td>-.06</td>
<td>-.10</td>
<td>-.11</td>
</tr>
<tr>
<td>12. Father residential status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.27</td>
<td>-.27*</td>
<td>.12</td>
<td>.13</td>
</tr>
<tr>
<td>13. Mother session attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.26</td>
<td>.29</td>
<td>.11</td>
<td>-.13</td>
</tr>
<tr>
<td>14. Father session attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.13</td>
<td>.12</td>
<td>.16</td>
<td>-.07</td>
</tr>
<tr>
<td>Mean</td>
<td>4.42</td>
<td>4.30</td>
<td>6.1</td>
<td>5.61</td>
<td>2.27</td>
<td>2.38</td>
<td>4.04</td>
<td>3.74</td>
<td>1.30</td>
<td>1.37</td>
<td>1.22</td>
<td>1.40</td>
<td>5.14</td>
<td>3.59</td>
</tr>
<tr>
<td>SD</td>
<td>.40</td>
<td>.64</td>
<td>2.37</td>
<td>2.76</td>
<td>.62</td>
<td>.51</td>
<td>.41</td>
<td>.59</td>
<td>.64</td>
<td>.61</td>
<td>.66</td>
<td>.78</td>
<td>2.19</td>
<td>2.55</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).
POPI: Perceptions of parenting influence variable
PVOT: Perceived value of treatment variable

Notes:
- Mean and SD presented for continuous variables.
- Correlations presented for all study variables.
Table 2-1: T-tests

<table>
<thead>
<tr>
<th>Measures</th>
<th>Mother</th>
<th>Father</th>
<th>t</th>
<th>df</th>
<th>Sig. (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>5.96</td>
<td>2.34</td>
<td>5.68</td>
<td>2.66</td>
<td>1.02</td>
</tr>
<tr>
<td>Perceived value of treatment</td>
<td>3.97</td>
<td>.36</td>
<td>3.72</td>
<td>.61</td>
<td>2.76</td>
</tr>
<tr>
<td>Perceptions of parenting influence</td>
<td>4.42</td>
<td>.4</td>
<td>4.29</td>
<td>.64</td>
<td>1.23</td>
</tr>
<tr>
<td>Interparental conflict</td>
<td>1.3</td>
<td>.79</td>
<td>1.4</td>
<td>.57</td>
<td>-1.63</td>
</tr>
<tr>
<td>Barriers</td>
<td>2.36</td>
<td>.58</td>
<td>2.37</td>
<td>.52</td>
<td>-0.03</td>
</tr>
<tr>
<td>Residential status</td>
<td>1.31</td>
<td>.79</td>
<td>1.41</td>
<td>.80</td>
<td>-0.96</td>
</tr>
<tr>
<td>Session attendance</td>
<td>5.22</td>
<td>2.07</td>
<td>3.6</td>
<td>2.55</td>
<td>4.85</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).
Table 3-1: Linear Regression of Family Contextual Variables Predicting Motivation to Change

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th></th>
<th></th>
<th>Father</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>β</td>
<td>t</td>
<td>Sig.</td>
<td>b</td>
</tr>
<tr>
<td>Residential status</td>
<td>-.239</td>
<td>.36</td>
<td>-.08</td>
<td>-.68</td>
<td>.50</td>
<td>.50</td>
</tr>
<tr>
<td>Perceptions of parenting influence</td>
<td>-1.44</td>
<td>.73</td>
<td>-.23</td>
<td>-1.99</td>
<td>.05*</td>
<td>.53</td>
</tr>
<tr>
<td>Interparental conflict</td>
<td>.94</td>
<td>.42</td>
<td>.26</td>
<td>2.25</td>
<td>.03*</td>
<td>.81</td>
</tr>
<tr>
<td>Barriers</td>
<td>-.83</td>
<td>.43</td>
<td>-.22</td>
<td>-1.92</td>
<td>.06</td>
<td>-.32</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).
Table 4-1: Linear Regression of Family Contextual Variables Predicting Expectations of Treatment

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th></th>
<th></th>
<th></th>
<th>Father</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>(\beta)</td>
<td>(t)</td>
<td>Sig.</td>
<td>b</td>
<td>SE</td>
<td>(\beta)</td>
</tr>
<tr>
<td>Residential status</td>
<td>-.05</td>
<td>.07</td>
<td>-.08</td>
<td>-68</td>
<td>.50</td>
<td>-.01</td>
<td>.11</td>
<td>-.01</td>
</tr>
<tr>
<td>Perceptions of parenting influence</td>
<td>.31</td>
<td>.13</td>
<td>.27</td>
<td>2.32</td>
<td>.02*</td>
<td>.06</td>
<td>.14</td>
<td>.06</td>
</tr>
<tr>
<td>Interparental conflict</td>
<td>.09</td>
<td>.08</td>
<td>.13</td>
<td>1.13</td>
<td>.24</td>
<td>-.01</td>
<td>.14</td>
<td>-.01</td>
</tr>
<tr>
<td>Barriers</td>
<td>-.22</td>
<td>.08</td>
<td>-.31</td>
<td>-2.83</td>
<td>.01*</td>
<td>-.30</td>
<td>.17</td>
<td>-.26</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).*
Table 5-1: Linear Regression of Intervention Readiness Predicting Session Attendance

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th></th>
<th></th>
<th></th>
<th>Father</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>b</td>
<td>SE</td>
<td>β</td>
<td>t</td>
<td>Sig.</td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Motivation to Change</td>
<td></td>
<td>.08</td>
<td>.13</td>
<td>.08</td>
<td>.57</td>
<td>.57</td>
<td>-.009</td>
<td>.19</td>
</tr>
<tr>
<td>Perceived Value of Treatment</td>
<td>.61</td>
<td>.68</td>
<td>.12</td>
<td>.90</td>
<td>.37</td>
<td>-.19</td>
<td>.62</td>
<td>-.06</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).
Table 6-1: Linear Regression of Family Contextual Factor Predicting Session Attendance

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th></th>
<th>Father</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>β</td>
<td>t</td>
</tr>
<tr>
<td>Residential status</td>
<td>-.06</td>
<td>.42</td>
<td>-.02</td>
<td>-.13</td>
</tr>
<tr>
<td>Perceptions of parenting influence</td>
<td>1.14</td>
<td>.90</td>
<td>.19</td>
<td>1.29</td>
</tr>
<tr>
<td>Interparental conflict</td>
<td>-.50</td>
<td>.53</td>
<td>-.13</td>
<td>-.94</td>
</tr>
<tr>
<td>Barriers</td>
<td>-.83</td>
<td>.50</td>
<td>-.24</td>
<td>-1.67</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).
References


of Preventive Medicine, 40(4), 440-447.

doi:http://dx.doi.org/10.1016/j.amepre.2010.12.012

Substance-use outcomes at 18 months past baseline: The PROSPER community-university partnership trial. *American Journal of Preventive Medicine, 32*(5), 395-402. doi:http://dx.doi.org/10.1016/j.amepre.2007.01.014

Strengthening Families Program: For Parents and Youth 10-14 (ISFP or SFP 10-14).

http://dx.doi.org/10.1177/1359104510366278

ACADEMIC VITA

Sandra Lynn Bamford
slb5502@gmail.com
1 Village Way, Plymouth Meeting, PA 19462

EDUCATION

Penn State University, University Park, PA
B.S., Human Development and Family Studies, Summer 2013
Minor in Psychology, Summer 2013

The Pantheon Institute, Rome, Italy
Study Abroad, Summer 2013

ACADEMIC HONORS

• Schreyer Honors College Scholar
• Dean’s List (FA ’10, SP ’11, FA ’11, SP ’12, SU ’12, FA ’12, SP ’13)

LEADERSHIP AND VOLUNTEERISM

• Cradles to Crayons of Philadelphia Volunteer
• Penn State IFC/Panhellenic Dance Marathon Rules & Regulations Captain
• Penn State IFC/Panhellenic Dance Marathon Rules & Regulations Security Leader
• Penn State IFC/Panhellenic Dance Marathon THON Chair
• Fresh Start Day of Service Participant and Team Leader

PROFESSIONAL EXPERIENCE

• Strengthening Families Project Research Assistant
• University Life Study Research Assistant
• Research Methods Course Undergraduate Teaching Assistant