A QUALITATIVE SYSTEMATIC REVIEW AND NARRATIVE SYNTHESIS OF THE EFFECTIVENESS OF INTERVENTIONS FOR NON-INTIMATE PARTER YOUTH FAMILY VIOLENCE

by

SCOTT SAINATO

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

December 2018

Acknowledgements

It is with great pleasure that I extend my sincere gratitude and appreciation for all of those you have contributed to this dissertation, my education, and my personal and professional growth. I could not have finished this journey without all of you.

I would like to first thank those on my dissertation committee who provided encouragement, guidance, and knowledge. Dr. Jordan, I have been very fortunate to have you as an advisor and chair on my committee. You helped guide, educate, and encourage me from my first day. I can say truly that you have made me a better researcher, writer, and academic and for that I am grateful. I would also like to thank Dr. Lehmann, Dr. Nagoshi, and Dr. Basham for providing unique and valuable insight to my dissertation. Each of your expertise and feedback has helped me along the way have been essential to my growth and as a scholar. Dr. Rouse, I am very grateful that you decided to allow me to learn from you in my class as well as join my committee to offer your unique perspective from outside of the social work discipline. I believe your insights and help has made my dissertation strong.

I would also like to show my appreciation to my colleagues and former classmates who always gave me words of encouragement from the first day of class to my completing my Ph.D. I will never forget each of you and the help you gave me over the years. Last, I want to express my deep and sincere gratitude to my wife for her unwavering support and love. You never doubted and always encourage this journey. I could not have done this with your support, patience, and many sacrifices. I truly feel blessed to have these amazing people in my life.

April 13, 2018

Abstract

A QUALITATIVE SYSTEMATIC REVIEW AND NARRATIVE SYNTHESIS OF THE EFFECTIVENESS OF INTERVENTIONS FOR NON-INTIMATE PARTER YOUTH FAMILY VIOLENCE

Scott Sainato, PhD

The University of Texas at Arlington, 2018

Supervising Professor: Catheleen Jordan

Social Workers have an ethical obligation to “monitor and evaluate policies, the implementation of programs, and practice interventions” (National Association of Social Workers, 2017, 5.02A). This study seeks to meet ethical standards for social workers as well as advance the general knowledge base in the area of Non-Intimate Partner – Youth family Violence (NIP-YFV) by conducting the first systematic review and narrative synthesis in the area of NIP-YFV. The following research will identify and explain why certain interventions are most effective in addressing NIP-YFV. Discussion and conclusion will detail the implications this study has on social work practitioners, policy makers, and researchers as well address the limitations so future research can build on this study.

Keywords: Non-intimate Partner Violence; Family Violence; Youth Violence; Youth to Parent Violence; Systematic Review; Narrative Synthesis

Table of Contents

List of Illustrations

List of Tables

Chapter 1

Introduction

Social Workers have an ethical obligation to “monitor and evaluate policies, the implementation of programs, and practice interventions” (National Association of Social Workers, 2017, 5.02A). Non-Intimate Partner – Youth Family Violence (NIP-YFV) is any physical and/or emotional violence committed by a youth against a parent, sibling or caretaker (non-parent family member). Social Workers are interested in this area because they work to treat youth with family violence issues while using an evidence-based perspective. A cursory look at the literature reveals there are not enough studies to do a meta-analysis, so this effort will be a qualitative systematic review instead. The aim of this study is to examine the existing literature for evidence-based treatment effectiveness for NIP-YFV. This study’s full qualitative systematic review and narrative synthesis will help meet that ethical obligation. In this chapter, after a brief description of the evidence-based framework an overview of the NIP-YFV area of study will be provided. Finally, the objectives and procedures embodied in the qualitative systematic review and narrative synthesis are described.

Evidence-Based Practice Conceptual Framework

This study is conceptualized using an evidence-based practice framework. Evidence-based practice (EBP) is a “process in which practitioners make practice decisions in light of the best research evidence available” (Rubin & Babbie, 2005, p.25). EBP is commonly used among social work practitioners when deciding what interventions to use with a client. This study will be guided by the identified steps of the EBP framework as described by Babbie & Rubin (2005), including 1) formulate a question to answer practice needs, 2) search for the evidence, and 3) critically appraise the relevant studies. Practitioners themselves will determine which evidence-based interventions are

most appropriate for their particular type of clients, 4) determine which evidence-based intervention is most appropriate for your particular client(s), and 5) apply the evidence-based intervention. The methodology of this study systematic review and narrative synthesis will also follow the EBP process. This study will focus on Step 3 and 4 of the EBP process in the following ways. The identified studies from a systematic literature review will be critically appraised and fulfill (Step 3) of the EBP process. The results of the narrative synthesis will help identify potentially effective evidence-based interventions from the included studies (Step 4). The focus in this study will be on the evidence base for interventions in the area of NIP-YFV.

Understanding Non-Intimate Partner – Youth Family Violence

The difference between NIP-YFV and Intimate Partner Violence (IPV) is critical to understanding study of NIP-YFV as a distinctive area. While NIP-YFV is any physical or emotional violence perpetrated by the youth against a parent, sibling, or caretaker, IPV is "any incident of threatening behavior, violence or abuse (psychological, physical, sexual, financial or emotional) between adults who are or have been intimate partners or family members, regardless of gender or sexuality (Wilcox, 2012, p.283). There are important distinctions between NIP-YFV and other types of violence such as IPV. NIP-YFV involves the youth and parent or sibling whereas IPV involves two adults. This is an important distinction because a parent has an on-going responsibility to take care of the youth and does not have the same opportunity to end or leave the violent relationship as in IPV cases. Another distinction is risk factors for NIP-YFV and IPV. (Kennedy, Edmonds, Dann, & Burnett, 2011, p.511). but are not common risk factors in IPV (Capaldi, Knoble, Shortt, & Kim, 2012, p.257). Further, IPV has been researched longer, 1960s (Bair-Merritt, 2010, p.146) and more extensively than NIP-YFV, late 1970s (Gelles & Straus, 1979, p.15). There are a couple of reasons why NIP-YFV interventions should be studied

separately. First, there are different risk factors for IPV and NIP-YFV such as school problems found in NIP-YFV and not common in IPV. Second, NIP-YFV is between a youth and a parent whereas IPV is between two adults. An intervention used for the parent and child may not be effective between two adults in a relationship. For example, a resource for IPV victims are shelters or places to go to avoid the abuse. In NIP-YFV, the victim (parent) does not have the same resources as a victim of IPV. In order for an intervention to be effective it must address the risk factors and find solutions to prevent the violence from reoccurring. Due to the unique risk factors and different dynamics between IPV and NIP-YFV studying these issues separately can more effectively address their unique circumstances.

Key Terms

NIP-YFV refers to situations in which a youth commits a violent act against a family member who is not an intimate partner. Violence can be physical and/or emotional act committed by the youth against a parent/caregiver or sibling (Hoffman & Edwards, 2004).

Youth – This study focuses on youth who commit violence against a parent, sibling, or caregiver. For the purposes of this paper, violent youth offenders cover, those who are age 15 – 25 years of age (Cottrell, 2001, p.76). Any exceptions to this definition are specifically identified.

Youth to Parent Violence – A definition of parental violence offered by Cottrell (2001) is “any act by a child that intimidates the parent to gain power and control and is aimed at causing them physical, psychological, or financial harm” (p.107).

Youth to Sibling Violence – Similar to parental violence, sibling violence also includes physical and psychological harm. An older study (Hoffman & Edwards, 2004, p.191) showed that one distinct difference between youth violence towards parents

versus siblings revolves around the most common instances of each type. Assault was found to be the most common example of parental violence whereas psychological abuse was more common than physical abuse among siblings. This definition is used to describe studies that address specifically youth to sibling violence.

The Context and Scope of NIP-YFV

NIP-YFV is a far-reaching problem affecting the youth, their families, and communities. Statistics provide a context and scope which help illustrate the seriousness of the NIP-YFV problem. The National Center of Juvenile Justice reported over "100,000 violent acts committed by youth against a family member in 2013 alone with most of these acts consisting of physical assault (80.7%) and intimidation (11.1%)" (Puzzanchera, Smith, & Kang, 2015, para 2).These statistics describe not only the most common instances of NIP-YFV (assault) but also the magnitude or scope of the problem (100,000 violent acts in 1 year).. These stats are important for practitioners to be aware of the circumstances of NIP-YFV as they address it with their clients. It is also important for policy makers to show the magnitude of the problem as evidentiary support to fund further studies and interventions to address this issue. NIP-YFV is not a new problem, but one that has been around for decades with indications the problem is larger than expected as described by Routt and Anderson (2011), NIP-YFV was "first reported by researchers in 1979 (Gelles & Strauss, 1979) with a growing body of evidence suggesting it is widespread" (p.1).

It is difficult to ascertain whether the problem is getting worse or better over time due to several factors. First, "parents are less likely to report incidents of violent youth due to guilt, shame, or embarrassment. Second, law enforcement is less likely to arrest a youth for this particular crime (misdemeanor assault)" (Bobic, 2004, p.33). Statistics may be lacking or not available if there is an unwillingness or apprehension to report, which

inhibits the ability to fully capture the prevalence, circumstances, and causes of NIP-YFV. Until more resources become available for victims (parents, siblings) such as therapy or family services provided by social workers, we will not know the true extent or trend of NIP-YFV. If resources and services are not provided or known to victims, they may not see the benefit of reporting the incidents and the extent of NIP-YFV may not be truly known

Description of the Qualitative Systematic Review and Narrative Synthesis

This study's purpose is to identify evidence-based interventions for NIP-YFV and methodological gaps by conducting a full qualitative systematic review of the NIP-YFV literature including published and unpublished studies that meet certain criteria discussed in Chapter 2. A qualitative systematic review is a methodology that can find, assess, and synthesize all studies relevant to the chosen topic. A narrative synthesis "refers to an approach to the systematic review and synthesizes the findings from multiple studies that rely primarily on the use of words and text to summarize and explain the findings of the synthesis" (Popay, Roberts, Sowden, Petticrew, Arai, Rodgers, …Duffy, 2006, p.5). The full systematic review is a proven method to delineate the "best evidentiary information available" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p.22) and thus aid in implementing "best practices" for social workers and other mental health professionals.

Conducting a qualitative systematic review and narrative synthesis is informative in several key ways. First, this will be the first study to utilize a systematic review and narrative synthesis to compare evidence-based interventions and provide a new research approach in NIP-YFV. Second, it will follow the Evidence-Based Practice (EBP) conceptual framework because systematic reviews are highly regarded in the EBP model. McNeece and Thyer (2004) describe the strength of systematic reviews as "the top research method to provide credible answers based upon their ability to reliably and

directly inform practice" (p.10). Third, the methodology (systematic review and narrative synthesis) used in this study will help social workers to meet their ethical obligations of: "monitoring and evaluating practice interventions" (NASW, 2017, 5.02A), and "social workers should base practice on recognized knowledge, including empirically based knowledge, relevant to social work and social work ethics" (NASW, 2017, 4.01C). Last, a systematic review is more rigorous than a narrative literature review (Cipriani & Geddes, 2011, p.146).

Baumeister and Leary (1997) describe commonly-found flaws in narrative literature reviews such as 1) Inadequate coverage of the literature. When there is a lack of clarity regarding how much detail to give, the ambiguity of the narrative literature review may lead to insufficient information. 2) Lack of critical analysis. It is common for narrative literature reviews to offer insufficient analysis of the literature. 3) Selective Review of Literature. Literature may be excluded that did not support or build a case for the researcher's hypothesis which may lead to publication bias. A qualitative systematic review was chosen in this study as a rigorous and proven method of literature review and a stronger method than narrative literature reviews. The full qualitative systematic review and narrative synthesis may provide the detailed analysis of available literature needed to suggest a direction for choosing the best intervention and helping to achieve "best practices" for social work professionals.

This chapter has discussed the social problem of NIP-YFV through the definitions and context provided. The evidence-based perspective was noted as a guide to identify effective evidence-based interventions and methodological gaps in existing studies. To study NIP-YFV from an evidence-based perspective, a qualitative systematic review and narrative synthesis will be utilized.

Research Question

The primary objective of this study is to use a qualitative systematic review and narrative synthesis to look at previous studies of NIP-YFV to find effective evidence-based interventions and assess methodological issues and gaps. In the EBP framework (Step 1), a research question is formulated to answer practice needs (Rubin & Babbie, 2005, p.25). Accordingly, the guiding research question is:

How would a systematic review and narrative synthesis be applied to existing studies of NIP-YFV interventions, what evidence does the literature provide, and what new directions are suggested for continuing research?

Chapter 2 provides in greater detail the methods used, then a review of the literature. The methodology chapter includes evidence-based support for implementing the systematic literature review and narrative synthesis as well as defining and detailing the step by step process on how it was implemented in this study.

Chapter 2

Methods

Despite some evidence that interventions for NIP-YFV may be effective, no systematic review or narrative synthesis of available studies has been done. It is also unknown how components of the intervention such as the identified problem (type of NIP-YFV), participants, research study design, outcome measures, and study limitations play a role in the reported effectiveness of interventions. This research aims to compare available studies of NIP-YFV interventions on effectiveness and to evaluate their methodological strengths and weaknesses through a systematic review and narrative synthesis of the existing literature.

Aim of Study

The goal of the present study is to identify and evaluate evidence-based interventions for NIP-YFV. The aim of this section is to explain how conducting a systematic review will help achieve this goal. A comprehensive systematic review of published articles can locate, assess, and synthesize all studies relevant to the chosen topic. It is especially useful to conduct this type of literature review if there is a lack of information or ambiguity regarding the effectiveness of interventions. This systematic review will follow the protocol set forth by the *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) because it has been "identified as one of the strongest methods of systematic reviews in social science" (Cooper & Hedges, 2009, p.436). There are several reasons *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) protocol is a strong method to identify and evaluate effective interventions. First, set criteria must be identified before any search is conducted. The criteria set forth by *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) are rigorous and will help ensure strong methodological studies will be included in this study. Second, the search strategy

protocol is thorough and complete to ensure all possible strong methodological studies with NIP-YFV interventions are reviewed. This chapter discusses each implemented step of the *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) for this systematic review, including 1) set criteria and summary of identified studies; 2) search strategy; 3) selection strategy; and 4) data abstraction as well as results of the systematic review. It is important to note the systematic review was conducted solely by the author.

Set Criteria

Cochrane's (Higgins & Green, 2011) criteria are used to determine the suitability of a study for this review to evaluate the effectiveness of NIP-YFV interventions. These criteria identify methodologically strong studies of interventions by adhering to specific guidelines, detailing the aspects of the intervention being reviewed and the exact criteria for deciding on the inclusion or exclusion of a study.

The set criteria will be used as part of the narrative synthesis and analysis of the included studies in several ways. First, each of the criteria is defined to give the reader and researcher clarity regarding the key terms utilized in assessing NIP-YFV interventions such as reliability/validity, research study design, and type of interventions. Second, tables are presented to give a visual representation of significant factors such as reliability/validity scores and the research study design strength (Hierarchy of Evidence). Third, Figure 2.1 Set Criteria provides another look how each component is connected to provide the set criteria for studies to be included. Data is abstracted and entered on the study information table (Appendix A). This information is key in evaluating and comparing interventions. For example, as part of the narrative synthesis, studies will be grouped and ranked by research study design. This process will allow for comparison and analysis of studies utilizing the Hierarchy of Evidence table. Abstracting this data is necessary and

vital to completing a thorough analysis and identifying effective evidence-based interventions for NIP-YFV.

Quality of Study

As discussed in *The Cochrane Reviewers' Handbook* (Higgins & Green, 2011), quality of a study is evaluated based on maximizing both external and internal validity while minimizing bias. Table 2.1 (helps to explain the key aspects of these quality concept definitions. Being able to locate and identify these terms in the studies provides further analysis of the findings based on quality concept indicators.

Table 2.1 Conceptual Definitions of Terms (Kitchenham, 2004)

Term	Synonyms	Definitions
Bias	Systematic error	A tendency to produce results that depart from systematically 'true' results. Unbiased results are internally valid.
Internal Validity	Validity	The extent to which the design and conduct of the study are likely to prevent systematic error. Internal validity is a prerequisite for external validity.
External Validity	Generalizability, Applicability	The extent to which the effects observed in the study are applicable outside of the study.

The criteria established in *Cochrane's Reviewer's Handbook* (Higgins & Green, 2011) and utilized in this study are described below.

1. Design of Study: The design of a study contributes to its quality. Numerous designs are used in research. Table 2.2 Study Designs describes the types of designs used in the studies being reviewed. Identifying the design of a study used helps to evaluate implemented interventions.

   Among study designs, there is a hierarchy of evidence to determine the strength and EBP effectiveness of the NIP-YFV intervention used. The strength

of an individual study design contributes to a study's quality. *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) summarizes the relative strength of various designs (See Table 2.2). Since a goal of this study is to identify potentially effective interventions for NIP-YFV, this concept will help in the identification of effective interventions by suggesting the strength of the evidence presented in selected studies.

Table 2.2 Hierarchy of Evidence (Higgins & Green, 2011)

Level	Description
1	Experimental studies (e.g., RCT with concealed allocation)
2	Quasi-experimental studies (e.g., studies without randomization)
3	Controlled observational studies
3 A	Cohort studies
3 B	Case-control studies
4	Observational studies without control groups
5	Expert opinion based on theory, laboratory research or consensus

*Level 3 is separated into A and B to distinguish with cohort studies being a higher level of evidence than case-control studies

2. Types of Participants: Youths who have committed a violent act against a non-intimate family member are included. Parents, siblings, and caretakers are also included if they took part in the therapeutic process. Any exception to these criteria is noted. Youth committing violence against a non-family member or intimate partner will be excluded. All genders, races, and ethnicities of youth are included. Age range may vary among studies, but studies addressing youth, adolescent, teenagers, juveniles, or other descriptors of this age group are included. Studies focused exclusively on other forms of family violence (child abuse, elder abuse, partner violence, domestic violence) are excluded. This review will include studies that focus on the youth, siblings, parents, and other family members affected by NIP-YFV. Some interventions may focus solely on the youth or a combination of those affected by NIP-YFV. For example, some

interventions may focus on only youth themselves and parents, youth and siblings, families (youth, parents, and siblings), only parents, or only siblings.

3. Types of Settings: This review includes studies conducted in both U.S. and international settings. Specific intervention settings such as home and treatment facilities are also noted.
4. Types of Interventions: This review includes various forms of treatment for youth, siblings, parents, and other family members affected by NIP-YFV. Table 2.3 will help visualize some of the various treatment modalities for NIP-YFV as well as the underlying premise or reasoning about why the treatment may be effective with violent youth.

Table 2.3 Types of NIP-YFV Intervention/Treatments (Tate, Reppucci, & Mulvey, 1995, p.16)

Type of Intervention	Premise
Biological	Several different biological conditions and neurological processes are hypothesized to be linked to violent behavior, including genetic influences, neurophysiological abnormalities, and functioning of steroid hormones and neurotransmitter systems (Reiss & Roth, 1993).
Cognitive Behavioral	Cognitive interventions assume that an angry, aggressive state is mediated through a person's expectations and appraisals and that the likelihood of violence is increased or decreased because of this process
Social Skills Training	It incorporates "skill streaming" (designed to teach a broad range of prosocial behaviors), anger control training (a curriculum for modifying anger responses), and moral reasoning training (Goldstein, Glick, Reiner, Zimmerman, & Coultry, 1986).
Problem Solving Skills Training	Treatment emphasizes the development of cognitive strategies to increase the adolescent's self-control and social responsivity (Tate et al.1995, p.779).
Multisystemic Family Therapy	Multisystemic Family Therapy interventions are child-focused, family-centered, and directed toward solving multiple problems across the numerous contexts in which youths are embedded: family, peers, school, and neighborhood (Tate et al. 1995, p.779).

Recognizing the type of intervention and understanding the premise behind the intervention will help evaluate its effectiveness by deciding if the intervention achieved its purpose or goal. A program may use multiple modalities.

5. Types of Outcome Measures: For a practitioner, clinician, or social worker to determine appropriate interventions, an evaluation of outcome measures is needed. This review is limited to studies that measured the effectiveness of NIP-YFV interventions. Outcome measures include assessments that reported high reliability and validity statistics. Studies with pre-and post-test measures were also included. Also, studies needed to provide calculation of effect size or demonstration of strength in findings to be included. Studies with little or insufficient information were excluded in the analysis. The process of how studies were selected is explained later in this chapter.

   Outcome measures vary across NIP-YFV studies due to the multitude of factors they measure. Despite such differences, they can be categorized into "personal" or "interpersonal" outcome measures. The following factors are the most commonly found salient to NIP-YFV outcome measures Personal factors include depression, anger, and stress. Interpersonal factors include family relations (i.e., mother, father, and siblings relationship with youth), aggression, and recidivism. Measurement of these factors is key in determining the EBP effectiveness of the interventions by assessing if and how well an intervention addresses both the personal and interpersonal factors of youth family violence.

   The reliability and validity of the measures utilized in NIP-YFV studies are crucial. Reliability is the "matter of whether a particular technique, applied repeatedly to the same object, would yield the same result" (Rubin & Babbie, 2005, p. 180). In other words, will a specific measure given to participants in a

NIP-YFV program produce the same result if given again? The more reliable a measure is the less random error in it. Reliability is important in EBP for future research to replicate the results of the study. A high-reliability score will show a strong methodological approach in that study. Cronbach's alpha is the widely used formula to test internal consistency, with scores ranging from 0 to .99 with scores below 0.7 being X and scores above 0.8 being more desirable (See Table 2.4). However, interpretation of numerical results may vary depending on a study's author(s).

Table 2.4 Cronbach's Alpha Reliability Scores

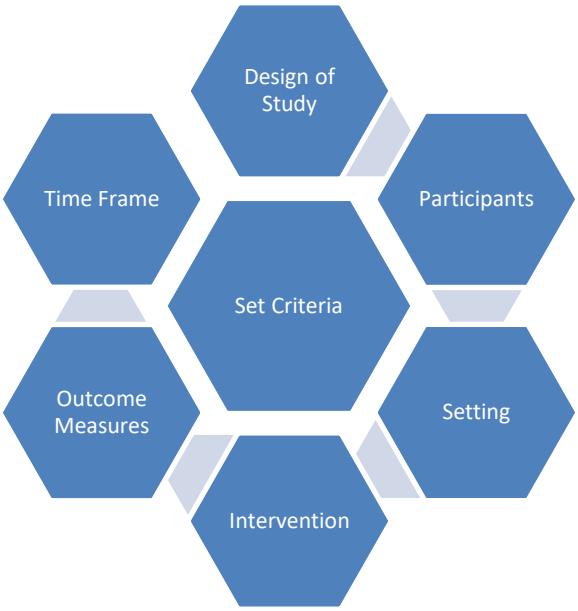
Cronbach's Alpha	Internal Consistency
$a \geq 0.9$	Excellent
$0.9 > a \geq 0.8$	Good
$0.8 > a \geq 0.7$	Acceptable
$0.7 > a \geq 0.6$	Questionable
$0.6 > a \geq 0.5$	Poor
$0.5 > a$	Unacceptable

Validity "refers to the extent to which a measure adequately reflects the real meaning of the concept under consideration" (Rubin & Babbie, 2005, p.184). Validity is measured by content that the study provides on the measure. For example, a study to have high validity, it would have to provide information on the construct of the measure and evidentiary support for the measures including previous studies that implemented the measure. In this study, as part of a NIP-YFV intervention there is a measure of anger in the youth, it is critical that it measures anger and not another variable such as depression. No studies were excluded based upon validity, but the study's validity is considered as part of the analysis. In other words, measures were not only analyzed based upon what factors (personal and/or interpersonal) of NIP-YFV, but how well they address those factors. Several instruments measure anger, but the reliability and validity

of the measure helps determine its strength. The stronger measurements will have a high reliability score to demonstrate the consistency of the measure. Also, strong measurements will have high validity if correlates highly with the factor being measured. Evaluation of the scales can help determine the strength. A key part of this study is to identify interventions that implement reliable instruments that can be produced again, and instruments that are accurately measuring the factors of NIP-YFV. This part is critical in determining the treatment success of the NIP-YFV interventions. Both reliability and validity are significant factors in the determination of an effective intervention. Not all reliable measures are valid, and not all valid measures are reliable. Making this assumption could lead to errors in analysis. Any studies which do not determine and disclose the reliability and validity of its measures or other pertinent information may be excluded from the review.

6. Time Frame: Studies conducted between 1979 and 2017 will be included to provide a thorough review of past and current NIP-YFV interventions. The year 1979 was selected as the beginning of the time frame used for inclusion because it was the start of published NIP-YFV research when Gelles and Straus (1979) summarized the state of knowledge of violence among family members. Reviewing over 35 years of published material provides a comprehensive search for qualifying studies.

Figure 2.1 Set Criteria



Search Strategy

The search strategy utilized in this study is a systematic process detailed by *Cochrane's Reviewer's Handbook* (Higgins & Green, 2011). This strategy will fulfill the goal of completing a full systematic review to identify evidence-based interventions for NIP-YFV. The following section explains how each step of the search process was implemented in this study.

Online Literature Search

Searching online literature is the first step in the strategy for systematic reviews. Google Scholar and Yahoo search engines were utilized as part of the literature search. This literature search strategy followed *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) "Boolean operators" process in which the focus is to "build up the controlled vocabulary terms, text words, synonyms and related terms for each concept at a time,

joining together each of the terms within each concept with the Boolean 'and' operator" (2011, 6.4.7). A visual look at the search process can be found in Table 2.5 Key Word Search below.

Table 2.5 Key Word Search

Order of Search	Key Words
1	Youth violence
2	Family violence
3	Youth family violence
4	Non-intimate partner violence
5	Child to parent violence
6	Interventions with violent youth
7	Therapies for violent youth
8	Family therapy with violent youth
9	Youth violence random control trials
10	Youth violence quasi-experimental trials

This study systematically searched the literature. The Boolean operators process was implemented. Google scholar was the first search engine utilized. After each key-word search, the resulting found studies were analyzed. For example, "youth violence" was the first keyword search in Google scholar. Each study was analyzed based on the set criteria detailed in previous section (set criteria). Once all studies were analyzed the next keyword search was conducted. Once completed the same process was repeated using the Yahoo search engine.

Electronic Database Search

Searching the electronic databases was the next step as part Cochrane Reviewer's Handbook (Higgins & Green, 2011) search strategy. The search of electronic databases (in this order) included the following sources: Dissertations and Abstracts, Social Work Abstracts, ProQuest (dissertations), Academic Search Premier, Medline, and PsycINFO to provide a thorough review. Delimiters including peer reviewed, journal articles, and published were part of the search process.

The same Boolean keyword search utilized in the literature search was also used for the electronic databases. Once the Boolean operators were completed then this process was repeated for the remaining electronic databases. Each study located was examined based on the set criteria.

Internet Search

The third step involved searching the internet for reports not published or found in the electronic databases by search engines. The internet search is visually represented by Table 2.6 Internet Search below and used to locate statistics, reports, and articles. Studies, reports, statistics, and articles from agencies or organizations such as the FBI, WHO, and the CDC were included because they provide multiple perspectives on NIP-YFV, offering a different lens than refereed journal articles in databases such as Google Scholar and thus providing a more comprehensive understanding of NIP-YFV. For example, the Center for Court Innovation was searched to find any court interventions utilized to address NIP-YFV. Also, Youth.gov was searched because it provides information on many issues facing youth including delinquency, violence, mental health issues which are all relevant to youth family violence.

Table 2.6 Internet Search

Order of Search	Name and Website
1	Youth.gov (www.youth.gov)
2	National Criminal Justice Reference Service (www.ncjrs.gov)
3	Centers for Disease Control & Prevention (CDC) (www.cdc.gov)
4	Center for Court Innovation (www.courtinnovation.org)
5	Federal Bureau of Investigation (FBI) (www.fbi.gov)
6	World Health Organization (WHO) (www.who.int)

This study searched in order the websites listed above. For each website, the Boolean process was implemented along with the same keyword search (Table 2.5). For example, “youth violence” was searched in the Youth.gov website for any related studies. After each keyword search, studies found were analyzed using the set criteria. This process was repeated for each website listed. This area of search was used to locate any studies not published or missed by the literature search or electronic databases.

Hand Search

Hand searching includes combing through past publications from journals’ websites for keywords that might be relevant to the topic under investigation. The following journals were hand searched as likely to contain pertinent information for the literature review about the target population (e.g., youth), type of offense (e.g., violence), and interventions (e.g., therapy, juvenile justice). The order and list of journals searched are: *Journal of Family Violence* (publication dates 1986-2016), *Journal of Aggression, Maltreatment, & Trauma* (publication dates 1990-2016), *Journal of Aggression and Violent Behavior* (publication dates 1996–2016), *Journal of Interpersonal Violence* (publication dates 1986-2016), *Youth Violence & Juvenile Justice Journal* (publication dates 2003-2016), and *Journal of Applied Juvenile Justice Services* (publication 2014-2016). These journals were chosen to be searched due to the similar area of focus around youth family violence. Journals were identified through a simple google search for “youth family violence journals”, and then reviewed to ensure applicability to NIP-YFV. In other words, is the aim and focus of the journal, and other articles published from the journal relate to NIP-YFV.

Most journals have a search function that allows someone to review past and present journal articles. Each journal was reviewed in the stated order above. The same Boolean process and keyword search were utilized (Table 2.5). For example, “youth violence” was

the first search in the *Journal of Family Violence*. Once each keyword search was conducted, the past and recent articles from the journal were examined using the set criteria. This search process was used to identify any studies not located by the previous search methods.

Reference Lists Search

Reference lists of the selected studies help locate additional studies relevant to the systematic review that might otherwise be overlooked. The reference lists were from all the articles collected via the previous methods described here. Reviewing the reference lists of the studies ensures a thorough and systematic process to identify all eligible studies meeting the set inclusion criteria.

The included studies from the previously implemented search areas were organized alphabetically. Each study's reference list was examined for more possible studies to include. For example, the first study analyzed was Dekovic, Asscher, Manders, Prins, & Van Der Laan, (2012). Each reference was located using one of the above techniques and analyzed using the set criteria (Illustration 2.1). This process was done for each reference before moving on to the next included study.

Selection Strategy for Studies

The previous section discussed the areas of search and the process used in each area. This section explains the process of how the final set of studies was selected from the online literature search, electronic database search, internet search, hand search, and reference lists search and is illustrated in Appendix B: PRISMA Flow Design. The selection strategy is important to allow all studies that meet the set criteria to be chosen while studies that do not meet that standard are excluded. The *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) details the process for selecting studies as:

1) Merge search results using reference management software and remove duplicate records of the same report, 2) Retrieve full text of the potentially relevant reports, 3) Link together multiple reports of the same study, 4) Examine full-text reports for compliance of studies with eligibility criteria, 5) Correspond with investigators, where appropriate, to clarify study eligibility, and 6) Make final decisions on study inclusion and proceed to data collection. (7.2.3)

Implementation of the Selection Process

The selection process is a key part of the systematic review process. The decision to include or exclude a study was done solely by the author. After each key word search, the studies found were reviewed for selection. Google scholar was the first search engine and used the Boolean process with “youth violence” as the first keyword search. Each result was located and analyzed using the set criteria. Studies were included if they met the set criteria by reviewing the full study. In order to confirm a thorough and comprehensive search, the results of each key word search were reviewed a second time. This process was repeated for the next key terms. Once all studies were analyzed using each key term, then the Yahoo search engine was utilized. These steps were repeated for each successive search area (electronic databases, internet searching, hand searching, and reference lists).

This systematic process is an attempt to identify possible evidence-based interventions for NIP-YFV. This selection process is also illustrated in Appendix B: PRISMA Flow Diagram. A total of 29 studies were selected for inclusion in this study.

Data Abstraction

The fourth step of the systematic review is the data abstraction. Obtaining the necessary data from studies is critical in determining which NIP-YFV interventions are effective. For the purposes of this study, data is defined as “any information about (or

deriving from) a study, including details of methods, participants, setting, context, interventions, outcome measures, results, publications and investigators" (Higgins & Green, 2011, 7.3.1). It is important to consider why the data categories used are needed to determine the effectiveness of interventions for NIP-YFV. Participant characteristics, such as age, sex, and ethnicity, are needed to understand more about the violent youth. Ages of participants, for example, may vary from study to study and can be described via SDs, ranges, means, or medians. The setting of an intervention may influence the effects found. Studies conducted in different regions or countries may influence the delivery of an intervention and its outcomes. Interventions are a key part of this study, so all information regarding the type of intervention must be included. A critical part of any analysis comes from the outcome measures utilized in the study to determine effectiveness and success. Schaeffer and Borduin (2005) and Caldwell (2011) both emphasize the importance of measuring interpersonal factors (e.g., peer relations, family relations, behavior problems) as all have been determinants of violence in youth. Since outcome measures may vary from one study to the next, it is important to record information to discover similarities, differences, and other noteworthy information to aid in determining potentially effective interventions of NIP-YFV.

Data Collected

Before collecting data from the selected studies, there are aspects of data extraction that must be addressed. These are identified in *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) as follows: 1) the data categories used; 2) how extracted data from each report will be verified; 3) whether data extraction is undertaken by content area experts, methodologists, or both; 4) piloting, training, and the existence of coding instructions for the data collection form; 5) how data are extracted from multiple

reports of the same study; and 6) how disagreements are handled if more than one coder extracts data from each report. (7.6.6.)

The data categories used followed Cochrane's (Higgins & Green, 2011, 7.3.1) recommendation for data abstraction to include details of methods, participants, setting, context, interventions, outcomes, results, publications, and investigators. Data from each report were verified solely by the researcher. Data extraction was done by the researcher who is a content area expert. The data collection form (Appendix C) was determined to be a sufficient tool to ensure all necessary data was collected. Each study was reviewed a second time by the researcher to confirm all data from each category was abstracted. Data from each report were verified solely by the author.

The process and use of the data collection form are described here to better understand the data collection process used in this study. Select categories (e.g., participant characteristics, design of study) were extracted from each study. For example, the author referred to "participant" section in the data collection form. Each subcategory (i.e., population description, setting, inclusion/exclusion criteria) was used as a checklist to identify this information in the 29 included studies. This process ensured relevant information pertaining to the participants was collected. This information is key to understanding why a NIP-YFV might or might not be effective and allows for analysis of the included studies. It is important to note that only the categories recommended for data abstraction were utilized and not all information from the category and subcategories was available from each study. For example, on the data collection form, demographics is a subcategory of participants. Within demographics it asks for the ethnicity, age, gender. The author attempted to locate each of these demographics, but not all studies provided this information and was notated not available (n/a). The studies were reviewed

a second time to confirm no relevant information from the selected data categories was missed.

Narrative Synthesis

A narrative synthesis expands upon the systematic review to provide a deeper understanding of the studies. Critically appraising the relevant studies fulfills Step 3 of the EBP process “Critically Appraise the Relevant Studies You Find”. The narrative synthesis focused on the effectiveness of the NIP-YFV interventions.

The narrative synthesis performed in this study is guided by the *Cochrane Reviewers' Handbook* (Higgins & Green, 2011). The 29 studies selected in the systematic literature review were examined again to provide a more comprehensive and precise analysis. All 29 studies were included in the narrative synthesis in order to determine which interventions are the most effective for addressing NIP-YFV. The narrative synthesis is comprised of three key components: preliminary synthesis, relational study, and assessment of synthesis. Within each key component, systematic tools and techniques are used. The following section will detail how the current study implemented each component to provide an overall assessment of the quality of evidence provided.

Preliminary Synthesis

The purpose of the preliminary synthesis is to develop an initial description of the results presented in the included studies. Textual descriptions are a common starting point and primary tool utilized in the preliminary synthesis of studies included in this review.

Paragraphs are produced in a systematic way to describe each study. Each textual description is a narrative summary of a qualifying study. The information from each of these studies is presented in the same order to ensure a comparable analysis

(See Chapter 4 for Results). The 29 studies were grouped by type of intervention (Multisystemic Therapy (MST), Multidimensional Treatment in Foster Care (MTFC), Decompression Treatment Model (DTM), Functional Family Therapy (FFT), Family Violence Intervention Program (FVIP), Other Family Focused Therapies (OFT), Parent Therapy, and Miscellaneous.) and chronologically ordered by publication date. Each study's textual description is presented and organized based on the inclusion criteria of the identified problem, participants, settings, intervention/treatment, outcome measures/results, and limitations. This process allows the reviewer to begin to discern similarities and contrasts across the studies.

Relational Study

The relational study is the second key concept in the narrative synthesis. After completing the preliminary synthesis, patterns across studies should emerge. Since the goal of this study is to identify effective interventions for NIP-YFV, analyzing the relationships within and between studies is critical. This process has two distinct purposes as outlined by Popay et al. (2006):

> To identify any factors that might explain differences in direction and size of effect across the included studies or in the type of facilitators and/or barriers to successful implementation, and to understand how and why interventions have or do not have an effect or why particular barriers and/or enablers to implementation operate. (p.14)

Answering these questions will suggest new directions for research in NIP-YFV. The relational study has specific tools such as data grouping and the following section details how this tool was utilized in this study.

Data grouping

In a narrative synthesis, data grouping involves organizing the included studies into smaller groups to aid the process of reviewing for patterns and add to the description and analysis. It is common in Cochrane Collaboration (Higgins & Green, 2011) systematic reviews to group studies.

The current study grouped earlier studies based upon the following: the design type (i.e., randomized control trial, quasi-experimental, and pre-and posttest), intervention/treatment (i.e., MST, MTFC, DTM, FFT, FVIP, OFT, Parent Therapy, Misc.), and outcome measures (i.e., Family Adaptability and Cohesion Evaluation (FACES), Revised Behavior Problem Checklist(RBPC), Child Behavior Checklist *(*CBCL), Self-Report Delinquency scale (SRD)), then chronologically ordered studies within each grouping. Grouping the studies allows for observation of possible similarities and differences within and between the defined categories.

Assessment of Synthesis

The third principle of the narrative synthesis is the assessment of synthesis. Being able to complete a comprehensive synthesis, one considers the methodological quality (robustness) and/or trustworthiness of the included studies. Addressing factors such as methodological quality, adequacy of information given, and relationships among key variables within and between studies all help to evaluate robustness and trustworthiness. The two tools used to assess the set of studies included are the weight of evidence (EPPI approach) and reflecting critically on the process of synthesis itself. These tools provide both a quantitative and qualitative assessment indicating the level of trustworthiness and robustness that can be assigned to conclusions drawn from the studies reviewed.

The Weight of Evidence Approach

The Weight of Evidence approach was developed by the EPPI-Centre (Popay et al. 2006, p.21). There is a set of criteria used to appraise each study including 1) methodological soundness, 2) trustworthiness, 3) appropriateness, and 4) relevance. All included studies were analyzed for their weight of evidence and scored using “high”, “medium”, “low” The results are described in Chapter 4 by Quality, according to the four criteria.

The 29 studies were ordered chronologically and then analyzed. For example, the first study Henggler, Melton, and Smith (1992) was reviewed according to the order of the set criteria (i.e., methodological soundness, trustworthiness, appropriateness, and relevance). The study’s research design was analyzed for methodological soundness and the Hierarchy of Evidence (Table 2.2) was used to determine strength. If a study used a level 1 or 2 for Hierarchy of Evidence received a 1 and a study that used a any lower level of evidence (Low to Medium). Trustworthiness is another set criteria and factors such as reliability and validity were examined using the Cronbach’s Alpha Reliability Scores (Table 2.4) to determine the level of trustworthiness a study contained. A study receiving an acceptable grade (.7) or higher received a score of 1, and any study with a lower reliability score (.6 or less) received a score of 0. The total points for the study were scored and given an overall weight score. This process was repeated for the remaining studies. Assessment of synthesis involves assessing the actual studies included as well as assessing the methodology used to analyze the studies. The second part to the assessment of synthesis is to critically analyze the process. This process used in this study is detailed below.

Reflecting critically on the synthesis process

Busse, Orvain, Velasco, Perleth, Drummon, Jorgensen, … and Wild (2002) recommend key areas to review when critically appraising the synthesis process. These areas include:

1. The methodology of the synthesis used (especially focusing on its limitations and influence on the results)
2. Evidence used (quality, validity, generalizability) – with emphasis on the possible sources of bias from the sources of evidence used and their potential influence on results of the synthesis
3. Assumptions made
4. Discrepancies and uncertainties identified (the way that any discrepancies in findings between included evidence were dealt with in the synthesis should be discussed and, wherever the evidence is weak or non-existent, areas where future research is needed can be highlighted)

Reviewing the method of narrative synthesis applied was the first area of analysis. Identifying the strengths and limitations of the narrative synthesis helps determines its overall strength. Second, evaluating the evidence used (quality, validity, generalizability) influences the results of the synthesis. This study used the Weight of Evidence to assess the strength of each study to determine the level of evidence. Third, identifying assumptions or uncertainties aids in determining the level of robustness of the narrative synthesis. These findings are key in deciding on future areas of focus in NIP-YFV research because it will help identify effective interventions of NIP-YFV. The assessment of synthesis is presented in Chapter 4 Results.

Chapter 3

Intervention Focused Literature Review

This systematic review followed the Cochrane (Higgins & Green, 2011) protocol by locating, assessing, and synthesizing all intervention focused NIP-YFV studies. By following the protocol, the systematic review also fulfills Step 2 of the EBP process to "search for evidence" and is a step towards finding the best research available. This systematic review was intervention focused by organizing the literature by NIP-YFV intervention (i.e., Multisystemic Therapy, Multidimensional Treatment in Foster Care, Decompression Treatment Model, Functional Family Therapy, Family Violence Intervention Program, Other Family Focused Therapies, Parent Therapy, and Miscellaneous). Each section provides detailed information of the NIP-YFV intervention models.

Multisystemic Therapy (MST)

MST is an "individualized family and community-based therapeutic approach consistent with Bronfenbrenner's (1979) social-ecological models" (Henggler, Cunningham, Pickrel, Schoenwald, & Brondino, 1996, p.2). The model is based on an understanding that youth are embedded in interconnected systems such as individual, family, peer, school and more underlying systems such as, neighborhood, community, child and adolescent service systems. As part of MST, therapists must be trained in multiple techniques (e.g., structural family therapy, cognitive behavior therapy). MST addresses both individual (e.g., cognitive) and systemic (e.g., school, family, peers) factors associated with youth violence. Services are delivered to youth and their caregivers in the home, school, and/or neighborhood settings. Individual therapy is part of MST and focused on family, personal, and academic issues. Therapists give support, encouragement, and feedback for behavior change. Frequency depends on severity and

circumstances of the youth. Another part of MST involves family therapy, including behavioral parent training, structural family therapy, and strategic family and cognitive-behavioral therapy. The goal of MST is to empower both the youth and family to make changes in their natural environments. MTS differs from other treatments due to its comprehensive outlook on client's problems and multi-faceted interventions.

Multidimensional Treatment in Foster Care (MTFC)

The MTFC model was originally funded by the Oregon Youth Authority in 1983 (Chamberlain, 2003). One phase of MTFC involves MTFC trained therapists training foster families in behavior management methods to provide a structured daily living environment (e.g., close supervision, setting clear rules and limits). The plan is a three-phase process involving assessing the child's compliance with program rules, adjustment in school, and general progress to determine privileges and level of supervision. Supervision of MTFC took place during weekly foster parent meetings run by case managers and daily phone calls between the case manager and parent. Each child participated in weekly individual therapy sessions focused on skill building in problem-solving, social perspective taking, and nonaggressive methods of self-expression. Each therapist had specific training in MTFC and personal supervision before treatment started. Families were provided with weekly family therapy based upon the Parent Management Training treatment model (Bank, Patterson, & Reid,1987). Treatment adherence to MTFC was monitored by daily phone calls between foster parents and case managers. Length of treatment and participation varied by individual cases' needs that range from 6 12 weeks

Decompression Treatment Model (DTM)

Mendota Juvenile Treatment Center (MJTC) utilized DTM as its NIP-YFV intervention. MJTC is guided by Monroe, Van Ryborek, & Maier (1998) model. The model

is designed for aggressive individuals to lift the individual out of the “compressed” cycle of extensive discipline. The aim is to move the youth into conventional education, rehabilitation, and treatment settings and is designed to shift focus to away from familiar disciplinary repercussions towards more acceptable, prosocial activities. Techniques are modified depending on the characteristics and level of aggressiveness of the youth. Commonly, short-term behavioral contracts, such as avoiding interpersonal violence, are given. These are focused on a level of cooperation between the youth and case manager, rather than reforming or changing the youth's behavior, and never involve a negative consequence. Each contract acts as a building block for greater cooperation. The goal of decompression treatment is for “the juvenile to engage in the usual treatment and rehabilitation services” (Caldwell & Van Rybroek, 2001). Usual treatment would consist of discipline/punishment or negative consequences for breaking rules.

Functional Family Therapy (FFT)

FFT is a community-based treatment program designed to reduce violence in youth. The five phases of FFT include Engagement, Motivation, Relational Assessment, Behavior Change, and Generalization, and are designed as an intensive family-based intervention to be implemented by clinicians trained in the FFT model. These studies were guided by Sexton and Alexander’s (2004) *Functional Family Therapy Clinical Training Manual.* FFT is based upon the foundation of clinical experience, integrated theory (multidisciplinary) and empirical evidence. According to Sexton and Alexander (2004), there are three core principles of FFT including 1. understanding clients attitude as much as the gaining information, 2. understanding clients’ problems systemically, and 3. understanding therapy and the role of the therapist as a fundamentally relational process. Based on the foundation and principles, a clinical model/map for FFT was constructed. The model consists of three specific phases (engagement and motivation,

E/M, behavior change, BC, and generalization, Gen). Each phase suggests different areas of assessment and therapeutic goals and provides strategies for each session as a way to accomplish the set therapeutic goals and see the change process in clients. FFT is set and adjusted to meet the needs of the youth and families.

Family Violence Intervention Program (FVIP)

Rybski (1998) utilized FVIP in their own study. Both males and females between the ages of 13 and 18 participated. The group therapy consisted of four to six families meeting several times a week with the families' choice of days lasting approximately two hours each session. Anger management and conflict resolution were a few of the topic for that week of therapy.

Nowakowski and Mattern (2014) conducted a study focused on ending family violence through the implementation of FVIP. This intervention is part of the juvenile court system in a large urban southeastern city offered to offenders and families as an alternative to the county justice system. All participants were charged with battery or assault and must adhere to all of the FVIP guidelines. These guidelines include no violent contact with anyone, completing 12 anger management sessions, improved school attendance, no substance abuse, random drug screening, and family counseling. Family members were required to attend family counseling that consisted of planned meetings, and mediation. Meetings consisted of counseling and conflict management.

Other Family Therapy Interventions

Multi-Dimensional Family Prevention (MDFP) model guided by Liddle and Hogue (2000). MDFP is a home-based model in which counselors hold sessions in a clinic, home, or community settings, such as churches and schools. Over a three to four-month period 15 – 25 sessions are held, depending on the nature and severity of abusive behaviors. Counselors work with family members to create family goals. Initial sessions

assess the adolescent and family focusing on seven risk/protection domains: family relations, school performance, prosocial activities, peer relations, attitudes about and experiences with drugs, racial and cultural themes, and adolescent health and sexuality. Treatment is broken up into four interdependent prevention modules: adolescent, parent, interactional, and extrafamilial. The adolescent module focuses on problem-solving skills, involvement in prosocial institutions, and behavior problems associated with drug use and delinquency. Issues such as cultural and racial identity are addressed, and youth are encouraged to establish an independent voice in family sessions. In the parent module, the focus is on competency in parenting practices by supporting consistency in limit-setting and discipline and regular monitoring of school attendance and adolescent behavior outside the home. This module also aids parents in managing stress that may compromise parenting effectiveness. The interactional module provides a context in which family members achieve skills, motivation, and practice interacting in new ways. Conversations in session are shaped to increase family cohesion. Any extended family members that have a mentoring role with the youth are encouraged to attend to develop a strong, protective network. The goal of the extrafamilial module is to foster collaboration among social systems (e.g., recreational activities, schools) to which the youth belongs. Within this module, any romantic or peer relationships the adolescent has, as well as everyday stressors, are examined.

This BFST intervention was guided by Szapocznik, Hervis and Schwartz (2003) and Szapocznik and Kurtines (1989). BFST is based upon three basic principles including family systems, addressing patterns of interaction, and planning interventions that carefully target specific behaviors and provide practical ways to change those patterns of interaction. A family systems approach assumes family members are interdependent and that which effects one family member will affect another. Patterns of

interaction are behaviors of family members that become habitual over time. Szapocznik et al. (2003) illustrate this through an example of "an adolescent who attracts attention to herself when her two caregivers (e.g., mother and grandmother) are fighting as a way to disrupt the fight" (p. 1). BSFT's major therapeutic techniques fall into three major categories: joining, diagnosing and restricting. The therapist "joins" the family by supporting the family structure, tracking the patterns of interactions, reflecting the family's style, affect, activity, and mood, and encouraging family members to behave or interact in its characteristic fashion in order to diagnose. Areas of diagnosis include power distribution, boundaries, developmental appropriateness, identified patient-hood, and conflict resolution as detailed in Szapocznik, Rio, Hervis, Mitrani, Kurtines, and Faraci (1991). Restructuring is "change-producing strategies that the therapist uses in promoting new, more adaptive interactional patterns" (Santisteban, Coatsworth, Perez-Vidal, Kurtines, Schwartz, LaPerrierre, and Szapocznik., 2003, p.5). During this phase, therapists would intervene to redirect maladaptive behaviors in order to foster open and effective communication and alter the family configuration. For example, "the therapist may request that an overactive member remain silent, may reframe negative statements, and/or promote more direct and open communication between the adolescent and his or her parents" (Santisteban et al. 2003, p.5). As part of BFST, any family members who lived in the household or were involved significantly in raising the adolescent were asked to participate. BSFT participants received between 4 and 20 weekly sessions of therapy depending on the severity of presenting problems, each session lasting approximately 1 hour.

Parent Interventions for NIP-YFV

Patterson (2002) conducted a study with a parent focus intervention for NIP-YFV. The intervention consisted of a group intervention with a therapeutic and educational

concentration. Group therapy was made up of the two facilitators and the parents (mothers). The objectives of the group program were to stop the violence and increase the mothers' sense of well-being. In order to achieve these objectives, topics such as the right to safety and definitions of violence were discussed. Groups were flexible in format and included both small and large groups with role-playing and didactic input. The first group ran weekly for 2 hours (6 total weeks) and groups were extended to seven sessions to adapt to needs of the group members. A follow-up session was held six weeks after the completion of each group to assess the mothers' sense of well-being, and the discover if there were any more incidents of violence

Portwood, Lambert, Abrams, and Nelson (2011) examined NIP-YFV through the Adults and Children Together (ACT) intervention. The ACT addresses the need for parenting support through a structured curriculum comprised of eight two-hour sessions that provide understanding of child behavior through research-based content. Other topics covered include dealing with child's anger, resolving family conflict, and positive discipline. The ACT was delivered in community settings (i.e. schools, agencies) using the train-the-trainer model with community service providers. A three-month follow-up was given after the sessions were completed.

Miscellaneous Interventions

Several studies did not utilize one of the previously mentioned NIP-YFV interventions. These studies were grouped together because they used a unique intervention not found in the other included studies. Caspi, Langley, Milne, Moffitt, O'Donovan, Owen, … and Williams (2008) developed a sibling aggression treatment model, Task-Centered Sibling Aggression TCSA. The intervention focused on a task-centered approach with structural family therapy strategies as guided by Reid, Abramson, Fortune, and Wasko (1992). Common themes found in sibling aggression treatment

models that are addressed are perceived favoritism, ignoring claims of injustices, parental reinforcement of antagonistic behaviors, and sibling-as-caretake concerns. This intervention was pilot tested with 4 cases. Treatment lasted six weeks for each family consisting of weekly meetings (six total meetings) along with three field tests taken at different times. In order to form model development, data collection strategies including practitioner progress notes, client-reported problem change assessment, and post treatment family interviews were collected. Client families were asked to report frequency and severity of sibling fights on a scale ranging from 1-10. Semi-structured posttreatment interviews were used to learn about the client's experience with TCSA model. Since this model is task oriented, an example of a task given to a client "mother will spend time with the older child, engaged in activities that do not include the younger child" (Caspi et al., 2008, p.579). at the end of 6 weeks, client-reported problem change assessments to determine the change in frequency and severity of sibling fights.

Gatti, Tremblay, and Vitaro (2009) conducted a study utilizing the Young Offenders Act. This act addressed youth who committed violence. The intervention consisted of placement in institutions for delinquent youths, a supervisory intervention, or a non-supervisor intervention. A supervisory intervention included an open file in the justice system with probation and regular meetings with a social worker or law officer. In the non-supervisory intervention, community compensatory or reparatory work and no file in the justice system. Some juveniles were imposed to multiple interventions.

Jordan et al. (2013) conducted the Youthful Offender Diversion Project (YODA). This NIP-YFV intervention utilized Solution-Focused Brief Therapy (SFBT) which includes 3 phases (assessment, individual therapy, family therapy) targeting youth who was charged with assault. A focus of treatment was the clients to identify problems and set goals along with steps toward achieving them. Short term outcomes such as resilience,

aggression, family relations, and mental health, as well as long term outcomes such as re-offense (6 month and 1 year) were measured.

An illustrative look at the systematic literature review is presented in Table 3.1 Types of Interventions. The 29 included studies are organized by the model or type of NIP-YFV intervention utilized.

Table 3.1 Types of Interventions

MST	MTFC	DTM	FFT	FVIP
Henggler et al. (1992)	Chamberlain & Reid (1998) **Eddy et al. (2004)	Caldwell & Van Rybroek (2001) ***Caldwell et al. (2006)	Sexton & Turner (2011)	Rybski (1998)
Scherer et al. (1994)	Leve & Chamberlain (2005)	Caldwell (2011)	White et al. (2013)	Nowakowski & Mattern (2014)
Borduin et al. (1995)			Darnell & Schuler (2015)	
Henggler et al. (1997)				
Ogden & Halliday-Boykins (2004)				
Schaeffer & Borduin (2005)				
Ogden & Hagen (2006)				
Butler et al. (2011)				
Sawyer & Borduin (2011)				
Dekovic et al. (2012)				
Wagner et al. (2014)				

Table 3.1 - *Continued*

OFT	Policies	Parent	Miscellaneous
Hogue et al. (2002)	Purcell et al. (2014)	Patterson (2002)	Caspi et al. (2008)
Santisteban et al. (2003)	Strom et al. (2014)	Portwood et al. (2011)	Gatti et al. (2009)

			Jordan et al. (2013)

*Studies were ordered chronologically

**Eddy et al. (2004) is a 2-year follow up of Chamberlain & Reid's (1998) study
***Caldwell et al. (2006) is a follow-up study of Caldwell Van Rybroek's (2001) study

Notable Findings on NIP-YFV Interventions

In order to assess for treatment effectiveness, a review of NIP-YFV interventions was completed. Findings reveal several factors including use of specific intervention/treatment components, family members included in treatment, strong research methodology, and the quality of measurement used that each support treatment effectiveness. Intervention/treatment components would include whether the study used individual and/or family therapy as part of its intervention. Family members included in treatment (participants) refers to youth, parents, and/or siblings who take part in the treatment through family therapy, reporting, and interviews. Strong research methodology describes the methodology used for the study's intervention. For example, did the intervention use RCTs, quasi-experimental, case control studies etc.…Table 2.2 illustrates the strength of different methodologies. Quality of measurement refers to whether the measures utilized in the study addressed the personal and/or interpersonal factors of NIP-YFV. The next chapter reviews the included studies for these stated factors to analyze and determine the effectiveness of the NIP-YFV interventions.

Chapter 4

Results

Results from the systematic review in Chapter 3, identified four key factors across the NIP-YFV interventions related to treatment success. These four factors include *intervention/treatment components, participants, research methodology*, and *measurement* and are the basis for analyzing the included studies in this chapter. Before analysis can be started, these factors must be explicitly defined. The factor of *intervention/treatment* consists of any therapeutic technique(s) such as individual therapy, family therapy, or both that the NIP-YFV utilized. Besides therapy, some intervention components may include parental training, behavior training, or skills learning for youth and parents. Other components would consist of training the therapists must complete and/or any education training on the model that guide the therapy. Regarding the factor of *participants*, this is anybody taken part in the intervention. For example, youth, parents, siblings, and/or a combination of them are the likely participants in NIP-YFV interventions. Participation may include being part of the therapy, interviews, training, and giving observation reports. The factor of *research methodology* refers to the chosen research methods used in the NIP-YFV intervention. In other words, the design of the research study such as random control trials, quasi-experimental, and case-controlled designs. *Measurement* refers to what instruments the study used to collect data, which factors (personal/interpersonal) of NIP-YFV did they target, did they use multiple methods (triangulation), and the reliability/validity of the measurement. Instruments would include scales (depression, anger), observations of youth from parents, and self-reports of violence from youth. Some personal factors that an intervention would target might be depression, stress, and self-esteem. Interpersonal factors would include acts of violence

(recidivism), relationships with parents/siblings (family functioning), and anger management. Some studies may use triangulation to collect more data. For example, a study may collect data on the interpersonal factor of youth violence by utilizing arrest records, youth self-reports, and parents report to measure youth violence. Reliability and validity refer to the quality of measurement and is determined by the scale in Table 2.4. In order to determine the strength of the included studies, each factor is given a weight, and studies are scored based on how they address each identified factor. The narrative synthesis conducted in this chapter will analyze and determine the overall effectiveness of each included study based on the four identified factors. This process is guided by Cochrane's (Higgins & Green, 2011) handbook including three steps: 1) a preliminary synthesis (summary of each included study); 2) a relational study (data grouping studies by common factors); and assessment of synthesis (weight of evidence and critical reflection).

Preliminary Synthesis

The first part of the narrative synthesis is the preliminary synthesis which consists of textual descriptions, or summaries, of each of the 29 identified studies of NIP-YFV interventions. The textual description of each study focuses on the four identified factors for treatment success including *intervention/treatment components, participants*, *research methodology, measurements.* The preliminary synthesis is the beginning step "to begin to construct an explanation of how and why a particular intervention had the effects reported (Popay et al., 2006, p.13). One way to answer these questions is to critically analyze each study by identifying the similarities and differences as well as the strength and weaknesses across studies. The previous section detailed each of the four factors by defining and providing examples. This will aid in identifying similarities and differences across studies along with the textual descriptions. The strength and

weakness of a study are determined by how the study addressed the four factors. The following are examples of both strong and weak methods studies use to address each of the four identified factors. For example, in terms of the *intervention/treatment components*, studies that utilize both individual and family therapy are more effective with violent youth than individual or family therapy alone (Borduin et al., 1995; Chamberlain & Reid 1998; Sexton & Turner, 2011). Also, including training of the therapists as part of the intervention is important because "the perceived and declarative knowledge increases and holds true across treatment modalities and therapists" (Beidas & Kendall, 2010, p.20). In reference to the *participants* factor, NIP-YFV interventions that utilize both youth and families as part of its intervention are more effective that youth alone (Haine-Schlagel, Brookman-Frazee, Fettes, Baker-Ericzén, & Garland 2012; Karver, Handelsman, Fields, & Bickman 2006; Shirk & Karver 2003), Based on the *research methodology* factor, studies that utilize randomized control trials is a stronger study design method than studies that utilize case-controlled designs according to the hierarchy of evidence (Table 2.2). The last identified factor of treatment success, *measurement*, is addressed by the instruments used in the study, personal/interpersonal factors of NIP-YFV targeted, the utilization of triangulation, and the reliability and validity scores. A study that implements an instrument with high reliability and validity scores is considered to be of better quality than an instrument with low reliability and validity scores (Rubin & Babbie, 2005, p.195). Also, studies that use triangulation has a higher reliability and validity than studies that don't (Weyers, Strydom, & Huisamen, 2014, p.210). This information from the textual descriptions of the preliminary synthesis, on how studies address each factor of treatment success, is critical for the analysis because identifying the strength and weaknesses across studies will help determine the effectiveness each NIP-YFV intervention has on youth violence. Each textual summary is constructed based

on a description of how the four identified factors *(intervention/treatment components, participants*, *research methodology, measurements)* were addressed in each study. The descriptions are grouped again by intervention type and ordered chronologically within each grouping. Table 4.1 provides an illustrative look at which type of NIP-YFV interventions the studies utilized.

Table 4.1 NIP-YFV Interventions

Type of Intervention	Author (Year)*
MST	Henggler et al. (1992)
	Scherer et al. (1994)
	Borduin et al. (1995)
	Henggler et al. (1997)
	Ogden & Halliday-Boykins (2004)
	Schaeffer & Borduin (2005)
	Ogden & Hagen (2006)
	Butler et al. (2011)
	Sawyer & Borduin (2011)
	Dekovic et al. (2012)
	Wagner et al. (2014)
MTFC	Chamberlain & Reid (1998)
	Eddy et al. (2004)
	Leve & Chamberlain (2005)
DTM	Caldwell & Van Rybroek (2001)
	Caldwell et al. (2006)
	Caldwell (2011)
FFT	Sexton & Turner (2011)
	White et al. (2013)
	Darnell & Schuler (2015)
FVIP	Rybski (1998)
	Nowakowski & Mattern (2014)
OFT	Hogue et al. (2002)
	Santisteban et al. (2003)
Parent-Focused	Patterson (2002)
	Portwood et al. (2011)
Miscellaneous	Caspi (2008)

	Gatti et al. (2009)
	Jordan et al. (2013)

Henggler et al. (1992) discuss the Family and Neighborhood Services (FANS) project by the Department of Mental Health and the Department of Youth Services (DYS) in South Carolina. *Intervention/Treatment* - The intervention compares MST with the usual services offered with a pre-and posttest design over an average of 13-weeks of treatment. Treatment consisted of both individual and family therapy. *Participants* - 84 juveniles and families referred by DYS participated in the project. The mean age of the youths was 15.2 years; 77% were male, 56% African American, 42% Caucasian, and 2% were Hispanic. *Research Methodology* – Experimental studies, RCT was used. *Measures* - Family relations (Family Adaptability and Cohesion Evaluation, (FACES-III), Peer relations (Missouri Peer Relations Inventory, MPRI), and Symptomology and social competence (Revised Behavior Problem Checklist (RBPC) were measured. Measures only external factors of NIP-YFV.

Scherer, Brondino, Henggler, Melton, and Hanley (1994) examined the effects MST had on rural and minority serious adolescent offenders through the Diffusion of Multisystemic Family Preservation (MFP) Services Project. *Intervention/Treatment* - The participants were randomly assigned to either the MFP or services, as usual, Department of Juvenile Justice (DJJ) with a pre, post and follow up design. Treatment consisted of both individual and family therapy. *Participants* - 55 juvenile offenders and their mothers participated in the project. The youths in the present sample ranged in age from 11.7 to 17.3 years (M = 15.12 years); 45 were boys and 10 were girls and 78% were African American and 22% White. Mother figures' ages ranged from 25.5 to 75.5 years (M = 41.39); 47 were the child's natural parent, 4 were grandmothers, and 1each an aunt, older sister, or adoptive mother. *Research Methodology* – A controlled observational

design was utilized. *Measures* - Brief Symptom Inventory (BSI), Self-Report Delinquency Scale (SRDS), Revised Behavior Problem Checklist (RBPC), Family Assessment Measure III (FAM), Oregon Learning Center's Adolescent Transitions, Time Outside of School, and Decision-Making questionnaires were all measures utilized as part of this intervention. Measures only external factors of NIP-YFV.

Borduin et al. (1995) examined the Missouri Delinquency Project, an intervention for delinquent youth, by comparing MST with individual therapy. *Intervention/Treatment* - Therapy included approximately 24 hours of treatment for MST treatments and 29 hours for individual therapy. MST treatment consisted of both individual and family therapy. *Participants* - 176 of the 200 juvenile offenders participated in the study. The mean age of the youths was 14.8 years *(SD*= 1.5); 67.5% were male; 70.0% were White, and 30.0% were African American; and 53.3% lived with two parental figures (biological parents, stepparents, foster parents, grandparents). The primary caretaker of the youths included biological mothers (88.0%), step-, foster, or adoptive mothers (6.5%), other female relatives (3.5%), or biological fathers (2.0%). *Research Methodology* – A controlled observational design was utilized through random control and random assignment (RCT). *Measures* - Several issues were addressed and measured in the adolescents including: Individual Adjustment (Psychiatric symptomology (Symptom Checklist—90), Adolescent Behavior Problems (Behavior Problem Checklist (RBPC), Family Relations (Perceived Family Functioning (Family Adaptability, Cohesion Evaluation Scales—II (FACES-II), Observed Family Reaction (video recording), and Peer Relations (13-item Missouri Peer Relations Inventory (MPRI). Measures used in this study focused solely on external factors of NIP-YFV.

Henggler, Melton, Brondino, Scherer, and Hanley (1997) designed a study to compare Multisystemic Therapy (MST) with the usual services offered by the South

Carolina Department of Juvenile Justice (DJJ) at multiple sites. *Intervention/Treatment* - Treatment was administered by experienced counselors (at least 2 years' experience with specific training) counselors for an average of 122 days. Treatment consisted of both individual and family therapy. *Participants* - Participants included 155 juvenile offenders and their primary caregivers. At the time of referral, the 155 youths ranged in age from 10.4 to 17.6 years *(M* = 15.22), 81.9% were male, 80.6% were African American, and 19.4% were Caucasian. Approximately 40% of the age-eligible adolescents reported being employed full-time or part-time, and 79% of the sample were in school. The majority of the youths were from single-parent homes (38.1%) or lived with their biological mother and another adult who was not their biological father (31.6%). *Research Methodology* – Experimental studies, RCT was used. *Measures* - Individual emotional adjustment and adolescent behavior problems (Global Severity Index (GSI)), Adolescent behavior problems (Revised Problem Behavior Checklist (RBPC)), Criminal Activity (Self-Report Delinquency Scale (SRD)), Family relations (Family Adaptability and Cohesion Evaluation Scales (FACES-III)), Parental monitoring (Monitoring Index), Peer relations (13-item Missouri Peer Relations Inventory MPRJ), and the MST treatment adherence (MST Adherence Measure). Measures only external factors of NIP-YFV.

Ogden and Halliday-Boykins (2004) were the first to conduct an MST study outside of the United States. This study took place in Norway and examined the effects MST had on 100 youthful offenders. *Intervention/Treatment* - Random assignment between the MST treatment and Child Welfare Services (CWS) with a pre-and posttest design was conducted. Treatment consisted of both individual and family therapy. CWS includes "home-based treatment or social work, including individual child counseling, parent training and promoting involvement in pro-social activities" (Ogden & Halliday-Boykins, 2004, p.81). *Participants* - The sample consisted of 63 boys and 37 girls, who averaged

14.95 years of age. Inclusion criteria were problem behavior (aggressive, violent behavior), age between 12 and 17 years, and parents involved and motivated to start MST. Exclusion criteria included 1) ongoing treatment by another agency, 2) substance abuse without other antisocial behavior, 3) sexual offending, 4) autism, 5) presence of youth in home posed a serious risk, and 6) ongoing investigation by municipal child protective services. *Research Methodology* – Experimental studies, RCT was used. *Measures* - Measures included: Child Behavior Checklist (CBCL), Self-Report Delinquency Scale (SRD), Social Competence with Peers Questionnaire (SCPQ), Social Skills Ratings System (SSRS), Family Adaptability and Cohesion Evaluation Scales-III (FACES-III), and the Family Satisfaction Survey. The CBCL was given to the adolescent, teacher, and caregiver. The measure contained 113 behaviors and 20 social competence problems items focused on both internal and external behavior. Both internal and external behaviors were high (.81 to .94). The SRD is a self-report delinquency scale focused on violent offending. The internal consistency (.95) was high for the participants. Measures both internal and external factors of youth family violence.

Schaeffer and Borduin (2005) conducted a study with a 13.7-year average follow-up comparison of individual therapy compared to MST. *Intervention/Treatment* - Treatment lasted approximately 20 hours for participants selected for MST and 22 hours for participants receiving individual therapy. Treatment consisted of both individual and family therapy. *Participants* - 176 youth participants, ages 12-17 years, were referred by the Missouri Delinquency Project. Referrals to the project included all families in which the youth (a) had at least two arrests, (b) was currently living with at least one parent figure, and (c) showed no evidence of psychosis or dementia. *Research Methodology* – Experimental studies, RCT was used. The original study included a pre-and post-test control group, random assignment, and a 4 year follow up. *Measures* - Criminal records

were obtained to measure re-arrest and recidivism rates. Measures only external factors of NIP-YFV.

Ogden and Hagen (2006) examined MST compared to Regular Child Welfare Services two years after intake. *Intervention/Treatment* - MST or services as usual treatment were the treatment options. Treatment consisted of both individual and family therapy. *Participants* - 75 participants (48 boys and 27 girls) were referred by the municipal Child Welfare services with average age of 15.07 age at intake. most of the adolescents lived at home, either with both of their parents (n ¼ 16, 21%), with their mother only (n ¼ 26, 35%), father only (n ¼ 2, 3%), with their mother and another adult (n ¼ 13, 17%), or with their father and another adult (n ¼ 4, 5%). Other youths lived in hospitals or other institutions (n ¼ 8, 11%) or foster homes (n ¼ 6, 8%). *Research Methodology* – Participants were randomly assigned. Experimental studies, RCT was used. *Measures* - Measures included the Child Behavior Checklist (CBCL), Self-Report Delinquency Scale (SRD), and placement of youth reported by the parents. In the follow-up study, the CBCL used an 89-problem behavior item scale to have a consistent assessment for all informants. The internal consistency was reported at .95 using Cronbach's reliability scale. Measures only external factors of NIP-YFV.

Butler, Baruch, Hickey, and Fonagy (2011) examined the impact MST has on youthful offenders compared to usual services offered. *Intervention/Treatment* - From 2003 to 2009, youth were referred by local agencies and randomly assigned to either the MST or YOT. Therapy lasted between 11 and 30 weeks with an average of 20. Treatment consisted of both individual and family therapy. *Participants* - 108 families participated in the intervention. Across the sample, the age of contact with youth offender services (14.9 years) and the number of convictions (2.03). Only a small minority was living with two parents; over two- thirds lived with their mothers but not their fathers, and

less than 10% with their fathers but not their mothers. *Research Methodology* – A case-controlled design was used. *Measures* - The MST Therapist Adherence Measure (TAM), the Self-Report of Youth Behavior (SRYB), Youth Self-Report (YSR), Child Behavior Checklist (CBCL), Antisocial Beliefs and Attitudes Scale (ABAS), Antisocial Process Screening Device (APSD), and the youth's involvement with delinquent peers (IDP) were measured in this study. Measures only external factors of NIP-YFV.

Sawyer and Borduin (2011) conducted a 21.9 year follow up of the 1995 study of MST with juvenile offenders (Borduin, et al., 1995). *Intervention/Treatment* - Intervention consisted of MST or individual therapy as part of the randomized control trials. Treatment consisted of both individual and family therapy. *Participants* - There were 176 participants in the original study. 148 participants were located for the follow-up. Inclusion in the original study required that youths (a) have at least two arrests (i.e., convictions) for violent or other serious crimes, (b) live with at least one parent figure, and (c) have no evidence of psychosis or dementia. *Research Methodology* – Experimental studies, RCT was used. *Measures* - The measurements of this study concentrated on the re-arrest of the participants including the arrest records. Measures only external factors of NIP-YFV.

Dekovic, Asscher, Manders, Prnings, and Van Der Laan (2012). *Intervention/Treatment* - Treatment consisted of both individual and family therapy. *Participants* - 256 adolescents participated in the intervention. The sample consisted of 188 boys and 68 girls, with an average age 16.02 years. 55% percent of the adolescents had a Dutch ethnicity. Of the adolescents belonging to ethnic minority groups, most had a Moroccan (34%) or a Surinamese (32%) background. Half of the adolescents came from a single-parent family. 50% of the mothers and 36% of the fathers were unemployed. 45% of the families experienced financial strains and more than half of the families (56%) lived below minimum income levels. *Research Methodology* – A controlled observational

design was utilized. RCT was used to assign participants to MST or treatment as usual. *Measures* - Externalizing problems and delinquent behavior (Child Behavior Checklist), Oppositional Defiant Disorder (ODD), Conduct Disorder (CD) subscale, Self-Report Delinquency scale (SRD) were some of the areas measured. CBCL was used for parents to report the externalizing behavior problems (aggression and delinquent behavior, 33 items) items had to be answered on a 3-point scale, ranging from 0 (never) to 2 (often). Also, two subscales of the Self-Report Delinquency scale (SRD) developed by Van der Laan & Blom (2009) were used to assess self-report delinquency. Participants were asked to indicate on a list of potential delinquent behaviors whether they engaged in the described behaviors during the past six months ("yes" or "no"). The SRD Violent offending and Property offenses scales were used. Measures only external factors of NIP-YFV.

Wagner, Borduin, Sawyer, and Dopp (2014) examined the long-term effects of MST in siblings of violent juvenile offenders utilizing a 25-year follow-up. *Intervention/Treatment* - MST or individual therapy was utilized as therapy in the original study with random assignment. Treatment consisted of both individual and family therapy. Individual therapy was used for the control group or the participants not selected for MST. *Participants* - Families were referred by the Missouri Delinquency Project. 129 siblings participated approximately 25 years earlier in either MST or individual therapy (Borduin et al. 1995). Inclusion in the original study required that referred youths (a) have at least two arrests (i.e., convictions), (b) live with at least one parent figure, and (c) have no evidence of psychosis or dementia. *Research Methodology* – Experimental studies, RCT was used. *Measure*s - Measures included the access to criminal records to determine the criminality of siblings approximately 25 years after the intervention. Measures only external factors of NIP-YFV.

Multidimensional Treatment Foster Care (MTFC)

Chamberlain and Reid (1998) compared two community alternatives including Group Care (GC) and Multidimensional Treatment Foster Care (MTFC). *Intervention/Treatment* - Participants were randomly assigned to either GC or MTFC group as part of the treatment. Treatment consisted of both individual and family therapy. *Participants* – Seventy-nine boys with serious and chronic offending participated. Boys were screened for eligibility by a committee of juvenile court personnel. *Research Methodology* – Experimental studies, RCT was used. *Measures* - Reunification with family, criminal and delinquent activity, and youth participation were measured. Instruments included arrest record and case notes on youth participation. Measures only external factors of NIP-YFV.

Eddy et al. (2004) is a 2-year follow up of a randomized control trial (Chamberlain & Reid, 1998) to prevent violent behavior by chronic and serious male offenders. *Intervention/Treatment* - Participants were randomly assigned to the Group Care (GC) or the MTFC treatment. Treatment consisted of both individual and family therapy. *Participants* - 79 youths from an urban-sized area in the Pacific Northwest were recruited. Youth averaged 14.9 years of age at study entry (*SD* = 1.3, range = 12–17 years). Eighty-five percent of participants were White, 6% African American, 6% Hispanic, and 3% American Indian. *Research Methodology* – Experimental studies, RCT was used. *Measures* – Violent behavior was measured in two ways: official records, and self-reports. The primary measure was violent behavior in youth which was gathered through parent and self-reports and official records. Measures only external factors of NIP-YFV.

Leve and Chamberlain (2005) evaluated the associated peers had on intervention in the juvenile justice system. *Intervention/Treatment* - These participants were randomly assigned to the MTFC or control group which consisted of group care.

MTFC included daily and weekly skill building in the home with supervised staff as a resource. Treatment consisted of both individual and family therapy. Participants assigned to the control group received one of 19 community-based group care programs with a 12-month follow up (parent and youth report). *Participants* - 153 youth (72 boys and 81 girls) were referred by the juvenile court judge in Oregon. At the baseline assessment, the boys were 12–17 years old (*M* = 14.4; *SD* = 1.3), and the girls were 13–17 years old (*M* = 15.3; *SD* = 1.1). Eighty-three percent of the boys and 74% of the girls were Caucasian, with the majority of the remaining youth being African-American, Hispanic, or American Indian. *Research Methodology* – A controlled observational design was utilized. *Measures* -Delinquent Peer Association (self-report), Child Behavior Checklist (CBCL), and Describing Friends Questionnaire (DFQ) were all administered measures. Measures both internal and external factors of youth family violence. Measures only external factors of NIP-YFV.

Decompression Treatment Model (DTM)

Caldwell and Van Rybroek (2001) sought to determine the efficacy of a Decompression Treatment Model (DTM) in the Clinical Management of Violent Juvenile Offenders. *Intervention/Treatment* - Ten participants were randomly assigned to the DTM or Juvenile Correctional Institute (JCI) (control group) for treatment. Treatment consisted of individual therapy. *Participants* -10 violent offenders participated from the Office of Juvenile Justice and Delinquency Prevention Challenge Grant program. The groups were matched on their "race, family socioeconomic status, county of origin, and the number of parents in the home" (Caldwell & Van Rybroek, 2001, p.474). *Research Methodology* – Experimental studies, RCT was used. *Measures* - The Psychopathy Checklist: Youth Version with variables such as conduct, symptoms, and the number of conduct reports were some of the variables measured. Measures only external factors of NIP-YFV.

Caldwell, Skeem, Salekin, and Van Rybroek (2006) is a follow-up of Caldwell and Van Rybroek (2001) to help determine the effectiveness of the DTM intervention. This study conducted a follow up comparing DTM to treatment as usual for 141 juvenile offenders. *Intervention/Treatment* - Intervention was focused on youth who completed the DTM treatment and followed up after two years. Treatment consisted of individual therapy. *Participants* - Participants were youthful male offenders who were released from the MJTC after completing randomly assigned treatment. Considering the 141 participants as a whole, 59% (*n* = 83) were African American, 31% (*n* = 44) White, and 10% (*n* = 14) Hispanic, Native American, Asian, or Arab. *Research Methodology* – A case-controlled design was used. *Measures* - criminal records and the PCL: YV (Revised Psychotherapy Checklist) were measures utilized. Measures only external factors of NIP-YFV.

Caldwell (2011) examined treatment in adolescent offenders within the Mendota Juvenile Treatment Center. *Intervention/Treatment* - 94 in the DTM treatment group and 91 in the comparison participated. Treatment consisted of individual therapy. *Participants* - 185 juveniles participated in the intervention. The full sample of youth studied here was made up of 43% African American, 46% White, 9% Hispanic, and 2% Native American male juveniles. The average age when released was 17 years 1 month (SD = 13 months). *Research Methodology* – Experimental studies, RCT was used. *Measures* - The Psychopathy Checklist: Youth Version (PCL: YV), recidivism, records, and demographics were all part of the measurements. Measures only external factors of NIP-YFV.

Functional Family Therapy (FFT)

Sexton and Turner (2011) examined the effectiveness of Functional Family Therapy (FFT) within a community setting. *Intervention/Treatment* - This study compared FFT with probation services with a 12 month follow up for both the control and treatment group. Family therapy was administered for an average of 12 sessions in the youth's home approximately 3-6 months after processing time. Treatment did not include individual therapy. *Participants* - Over 917 families from 14 counties in a Western state participated. Participants' ages were evenly distributed from 13 to 17 years (age 13=11%, age 14=17%, age 15=23%, age 16=24%, age 17=25%). About 78% of the sample was white, 10% were African American, 5% were Asian, 3% were Native American, and 4% were not identified. *Research Methodology* – Experimental studies, RCT was used. The control group received probation services. *Measures* – Risk and Protective Factors Assessment—The WAJCA-RA, Treatment Adherence Measure – according to the protocol were measured to determine a youth's behavior post-adjudication. The WAJCA-RA is a 100-item structured interview that is conducted with the youths and their family to assess for multiple risk and protective factors. These factors include criminal history, school participation, use of free time, employment, peer relationships, family, alcohol and drug history, mental health, attitudes (deviant or prosocial), and social skills. Measures only external factors of NIP-YFV.

White et al. (2013) examined Family Functional Therapy (FFT) in adolescent offenders. *Intervention/Treatment* - FFT was completed over a 20-month period with participants completing 1 to 19 sessions with a 6 or 12 month follow up. Treatment did not include individual therapy. *Participants* - youth (*N*=134) took part in the intervention. The participants were all between the ages of 11 and 17 (mean = 15.34; SD= 1.34) and 71.6% (n = 96) of the sample were boys. The majority of the youth

(59.0%; n = 79) were African-American. European-Americans made up 35.1% (n = 47) of the sample and 4.5% (n = 6) of the youth self-identified as Hispanic. The remaining 1.4% (n = 2) of the sample did not report their ethnicities. *Research Methodology* – A case-controlled design was used. *Measures* - Inventory of Callous-Unemotional Traits (ICU), Behavior Assessment Scale (BAS), and FFT treatment forms were used as measures. The ICU 24-item self-report scale designed to assess callous and unemotional traits in youth. The BAS widely used to assess the emotional and behavioral functioning and self-perceptions of children and adolescents. Subscales of the BAS were also used including Emotional Symptoms Index (ESI), the Interpersonal Relations (IR), and Relations with Parents (RP) subscales were used from the youth self-report form, while the Conduct Problems (CP) and Aggression (AG) subscales were used from the parent report form. Measures only external factors of NIP-YFV.

Darnell and Schuler (2015) conducted a quasi-experimental study of Family Functional Therapy (FFT) effectiveness in juvenile justice aftercare. *Intervention/Treatment* - Treatment consisted of Quasi-experimental groups including youth who receive FFT and Functional Family Probation (FFP) youth receiving FFT and standard probation, and youth who receive FFP only. Treatment did not include individual therapy. *Participants* - Participants were recruited from a specific type of court-ordered out of home placement (OHP). Youth eligible between the ages of 11-18 and do not pose a significant risk to the community. *Research Methodology* – A quasi-experimental design was used. *Measures* - Recidivism was the primary measure being analyzed. Measures only external factors of NIP-YFV.

Family Violence Intervention Program (FVIP)

Rybski's (1998) study focused on youth perpetrated violence against family members. *Intervention/Treatment* - This program modified and condensed Neidig and Friedman's (1984) couples conflict containment program into a family-focused treatment regimen of four, two-hour weekly group sessions, with family interview sessions pre- and post-treatment. Treatment did not include individual therapy. *Participants* - Adolescents (32 male and 17 female) were recruited by the Pima County Juvenile Correctional Center (PCJCC) and referred to the Family Violence Prevention Program (FVPP). The participants ages ranged from 13-18 and each had a recent arrest on domestic violence charges. *Research Methodology* – A case-controlled design was used. *Measures* - Measures include Psychological and Physical Abuse (The Abusive Behavior Inventory (ABI), Psychosocial and Emotional Functioning (Child and Adolescent Functioning Assessment Scale (CAFAS), Anger (Siegel Multidimensional Anger Inventory (MAI) & The State-Trait Anger Scale). Measures both internal and external factors of youth family violence.

Nowakowski and Mattern (2014) examined characteristics that prevent youth from completing a family violence diversion program. *Intervention/Treatment* - The program consisted of anger management, family counseling, drug screening, attendance in school, and compliance with improved behavior in school. The youth, to take part of the FVIP, must adhere to no violent contact with anyone, attend and complete 12 anger management sessions, improve school attendance and behavior, comply with no substance use, participate in random drug screens, and participate family counseling. The average completion was 6.5 months for the program. Treatment did not include individual therapy. *Participants* - 212 youthful offenders from the 2009 fiscal year participated in the Family Violence Intervention Program (FVIP). The final sample

consisted of 105 males and 104 females (three records were excluded due to more than 90 % of the case file missing), who ranged in age from 10 to 19 years, the average age being 15.7 years. *Research Methodology* – A case-controlled design was used. *Measures* - Measures included intake form, police reports, school records, and case notes. Measures only external factors of NIP-YFV.

Other Family Therapy (OFT)

Hogue, Liddle, Becker, and Johnson-Leckrone (2002) tested a post-intervention family-based preservation model. *Intervention/Treatment* – Based on the adaptation of Gorman-Smith, Tolan, Zelli, and Huesmann (1996)) that utilizes a developmental-ecological, family-based intervention. This also a home-based model which includes sessions with the counselors: at home, schools, churches, and in the community. The intervention model followed the multidimensional family prevention (MDFP). Therapy consisted of 15–25 sessions are held over a 3-to-4-month period depending on the severity of symptoms. The first few sessions are dedicated to the assessment of adolescent and family functioning, specifically, family relations. Treatment did not include individual therapy. *Participants* - Participants included 124 adolescents and their families who were recruited from a community-based youth enrichment program. The mean age of the adolescents at intake was 12.5 years and 92% attended grades 6–8. There were 55 boys (44%) and 69 girls (56%) in the sample. A total of 97% identified themselves as African American, 1% Hispanic, and 2% other. Families reported the following caretaking arrangements: single biological parent(s) 50%, one biological and one stepparent, 15%, grandparent(s), 12%, two biological parents 12%, and other11%. *Research Methodology* – A controlled observational design was utilized. *Measures* - Measure targeted areas such as: drug abuse (drug frequency scale), behavioral symptoms (Diagnostic Interview Schedule for Children & Youth Self Report YSR),

adolescent self-competence (Self-Perception Profile for Adolescents - SPPA), family functioning (family cohesion scale & parental monitoring scale), adolescent school involvement, and adolescent peer associations. Measures only external factors of NIP-YFV.

Santisteban et al. (2003) focused on the efficacy of Brief Strategic Family Therapy (BSFT). *Intervention/Treatment* - Participants were randomly assigned to either the BSFT or control group. Pre-and post-design was part of the intervention. Either family or group therapy (depending on assignment) was provided once a week as part of the treatment. All family members who lived in the household or were significantly involved in childrearing were asked to participate in therapy. Sessions were conducted at the clinic on the premises of the research center where the study was carried out. BSFT participants received between 4 and 20 weekly sessions of therapy (*M* = 11.2, *SD* = 3.8), depending on the clinical severity of the presenting problems. Each session lasted approximately 1 hr. Treatment did not include individual therapy. *Participants* - 126 Hispanic families participated in the study. Participants were either self-referred or met the inclusion criteria (e.g. violent behavior, trouble with police). Adolescent participants in the study ranged in age from 12 to 18 years, with 87% between the ages of 13 and 17 (*M* = 15.6). Seventy-five percent of the adolescent participants were male. Among the families successfully engaged in treatment (i.e., intake assessment plus one therapy session), 64 were Cuban, 18 were Nicaraguan, 12 were Colombian, 8 were Puerto Rican, 4 were Peruvian, 2 were Mexican, and 18 were from other Hispanic nationalities. *Research Methodology* – A case-controlled design was used. *Measures* - Measures include: Adolescent Behavior Problems (Conduct Disorder and Socialized Aggression subscales were taken from the RBPC), Family Functioning (Cohesion and Conflict scales

from the FES), and Adolescent Substance Abuse were all measured. Measures only external factors of NIP-YFV.

Parent-Focused Interventions

Patterson (2002) focused on the impact of adolescent violence on mothers. *Intervention/Treatment* - The intervention was designed with an educational and therapeutic purpose which involved a group intervention. Both an educational and therapeutic focus was part of the group intervention. The first group program ran weekly for six two-hour sessions. The second and third group programs were extended to seven sessions to incorporate additional material developed in response to group members 'needs. A follow-up session was held six weeks later for each of the programs. Participants were recruited via local and school newspapers, other agencies, and doctor offices, but most participants came through self-referral. Treatment did not include individual or family therapy. *Participants* - A total of 18 married and single mothers participated in one of three groups. The group program was advertised in school newsletters, local newspapers, and leaflets to other agencies, including doctors' surgeries. Most women self-referred, although a few were referred by professionals. *Research Methodology* – A controlled observational design was utilized. *Measures* - The following tests were administered both pre-and post-intervention: The Profile of Mood States (POMS), The General Health Questionnaire (GHQ-28), and The Violent Behavior Questionnaire (VBQ). Measures only external factors of NIP-YFV.

Portwood et al. (2011) was an evaluation of the Violence Parents Raising Safe Kids Program and the Adults and Child Together (ACT). *Intervention/Treatment* - Participants were randomly assigned to a control or intervention group (ACT). The control group received standard community-based support services. The ACT is organized into eight two-hour sessions focused on educating parents on understanding child behavior,

children and violence, adults dealing with their anger, dealing with children's anger, resolving family conflicts in a positive way. The intervention/treatment used a train the trainer model for community service providers that trained local facilitators and in turn the parents. Parents participating in the ACT showed significantly higher scores ineffective parenting, but no observable change in family conflict. Treatment did not include individual or family therapy. *Participants* - 162 participants (parents) were recruited by an agency near Chicago. The majority of parents in the intervention (89.3%; n = 142) were female. The average age was 32.9 years for intervention group.

The majority of intervention group participants reported their ethnicity as Hispanic (70.7%, n = 111, and 59.3%, n = 64, respectively), followed by White (17.8%, n = 28, and 19.4%, n = 21, respectively), and Black (8.3%, n = 13, and 16.7%, n = 18). Most participants were married (68.4%, n = 108, in the intervention group. *Research Methodology* – A case-controlled design was used. *Measures* - Measures included Parent Behavior Checklist, the Conflict Scale of the Family Environment Scale, the Perceived Social Support from Family and Friends Scales, and the Parenting Stress Index-Short Form. Measures only external factors of NIP-YFV.

Miscellaneous Interventions

Caspi et al. (2008) examined a sibling aggression treatment model. *Intervention/Treatment* - This treatment was pilot tested with four case studies with a 6-week treatment. Three families received therapeutic services who requested services at a family service agency. Assessments, family interviews, and notes were all used to collect data on the families. The TSCA pilot testing on these families occurred at various times of year with different start and end dates. Treatment did not include individual therapy. *Participants* - A total of 4 youth and family members took part in this pilot study intervention. This study used a purposive sample consisting of three families who

requested therapeutic services at a family service agency for the problem of sibling aggression. All three families were of European descent and lower to middle socioeconomic status, and all lived in suburban neighborhoods. *Research Methodology* – A case-controlled design was used. *Measures* - Measures include Client-reported problem change assessments (SSE), Client interviews, and practitioner's progress notes. The Task-Centered Sibling Aggression (TCSA) model was designed by Thomas and Rothman's (1994) D&D paradigm. Measures only external factors of NIP-YFV.

Gatti, Tremblay, and Vitaro (2009) examined juvenile justice. The study aimed to determine if intervention by juvenile courts during adolescence increases involvement in an adult crime. *Intervention/Treatment* - The intervention was based on the Youth Offenders Act and conducted by the juvenile courts. The intervention consisted of placement in institutions for delinquent youths (26%), a supervisory intervention (32%), or a non-supervisory (26%). Supervisory interventions included an open file justice system with probation and regular meetings with a social worker or law officer. Non-supervisory interventions included community compensatory or preparatory work and no file in the justice system. It is important to note some boys participated in more than one intervention. Treatment did not include individual or family therapy. *Participants* - A sample of 779 youth were included. Boys were included in the study only of both of their biological parents were born in Canada and their mother spoke French. Annual evaluations began at 10 years of age. *Research Methodology* – A case-controlled design was used. *Measures* - These measurements included from self-report records, judicial records, adult court data, and other family observations. Measures only external factors of NIP-YFV.

Jordan et al. (2013) conducted the Youthful Offender Diversion Project (YODA). *Intervention/Treatment* - This Solution-Focused Brief Therapy (SFBT) was a 3 phase (assessment, individual therapy, family therapy) targeting youth who was charged with assault in the Tarrant County Criminal Court #5 (Texas). *Participants* - Forty-nine participants completed the program at the time the study was published. Youth consisted of 43% Caucasian, 20% Hispanic, 23% African American, 12% bi-racial, and 2% Asian. Males made of 53.1 % and 46.9% were females. 67% percent of the participants were between the ages of 17-19. *Research Methodology* - A case-controlled design was used. *Measures* - Measures were given both pre-and post-intervention focusing on Solution building (SBI), Resilience (CYRM), Anger (NAS-PI), and Multidimensional Adolescent Assessment Scale (MAAS). SBI is a 14-item questionnaire rated on a five-point Likert scale. CYRM is a 28-item questionnaire assessing for resilience. MAAS measures a wide range of areas such as drug/alcohol abuse, family relations, and aggression in youth. NASPI measures areas including cognition, arousal, behavior, anger regulation, and provocation inventory.

Results of Preliminary Synthesis

Several findings from the analysis of the four factors of treatment success across the included studies identified similarities and differences as well as strength and weaknesses. First, regarding the *intervention/treatment* factor, 26/29 studies used individual therapy and family therapy in their intervention. Three studies (Caspi et al., 2008; Patterson, 2002; Portwood et al., 2011) did not include individual therapy for youth or family therapy. These studies focused on siblings (Caspi et al. 2008) and parents (Patterson, 2002; Portwood et al. 2011) as part of its intervention/treatment. Also, 15/29 included training of the therapists as part of its intervention/treatment component which is a strength across the studies. The other studies, 14/29, only had the therapists follow a

model or program as part of its treatment adherence which is a weakness of those studies. Second, 26/29 studies addressed the *participants* factor by including both youth and families as part of its intervention. Only three studies (Caspi et al., 2008, Patterson, 2002; Portwood et al., 2011) did not include youth. Caspi et al. (2008) only had siblings participate in the intervention, and Patterson (2002) and Portwood et al. (2011) had only parents of NIP-YFV participate. Third, based on the *research methodology,* only 13/29 utilized the highest level of evidence (Level 1 - RCTs) and the majority of studies,16/29, used a lower level of evidence (Level 3-5) which shows an identifiable weakness across those studies. Last, regarding *measurement,* only three types of interventions (MST, MTFC, FVIP) and only 15/29 studies targeted personal factors of NIP-YFV. This illustrates a clear difference in approaches of NIP-YFV interventions, and the importance they place on personal factors (e.g. depression, anger, stress) as determinants of youth violence. The preliminary synthesis was able to identify both similarities and differences along with strengths and weaknesses in how the studies addressed the identified factors. The next section continues analysis of the identified factors by revealing why certain methods the studies used to address the identified the factors are strong and why certain methods are considered weak. This will help identify and explain why certain interventions are effective in addressing NIP-YFV.

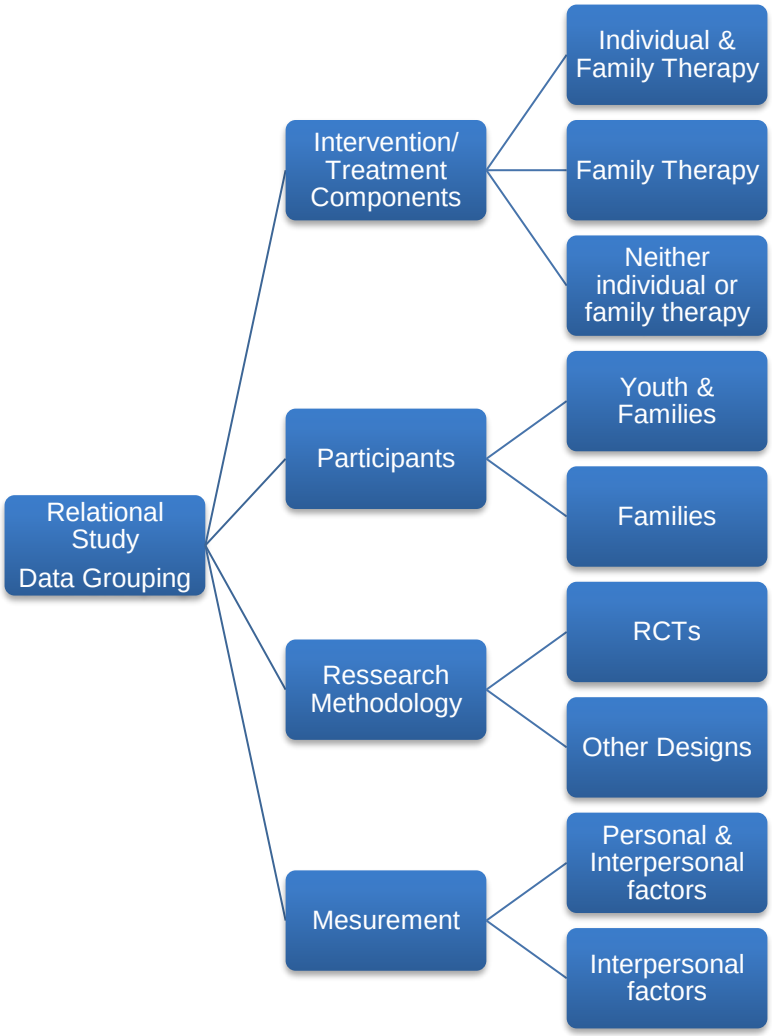
Relational Study

Findings from the first step of the narrative synthesis, preliminary synthesis, revealed similarities and differences along with strengths and weaknesses of how the four identified factors were addressed across studies. The second step, relational study, builds upon these findings by analyzing the studies to understand how and why interventions addressed the four identified factors in the matter they did, and to understand why certain methods of addressing the identified factors are strong and why

certain methods are considered weak. One way this study can answer those questions is data grouping studies together as part of the relational study. Data grouping involves grouping studies together based on a common characteristic, in this case, the four identified factors for treatment success. The data grouping is a tool to help explore relationships “between characteristics of individual studies and their reported findings and findings of different studies” (Popay et al., 2006, p.14). In this study, studies were data grouped together four separate times based on the four factors (*intervention/treatment components, participants, research methodology, measurement*). For example, the first data grouping was focused on the *intervention/treatment* components factor. Studies were grouped together by which treatment components they utilized. For instance, studies were grouped together if they utilized both youth and family therapy, and other studies were grouped that used only family therapy. An illustrative look at how the four factors were data grouped can be seen in Illustration 4.1 Relational Study Data Grouping by Identified Factor. Further analysis is needed to understand why certain methods in addressing the identified factors are vital to treatment success. For example, the *intervention/treatment components* factor, what makes individual and family therapy together a more effective approach than individual or family therapy alone? Regarding the *participants* factor, why is the combination of youth and families as part of the intervention more effective than simply youth? In reference to the *research methodology* factor, if RCTs are the strongest level of evidence, is there any limitations? In regard to the *measurement* factor, what is the best outcome measurement plan? These questions can be answered through data grouping and exploring these relationships. These answers will help understand why certain interventions have better outcomes for NIP-YFV than others. Each section of the relational study includes the results of the identified

factor data grouping, similarities/differences, strengths/weaknesses along with an analysis of how studies addressed the identified factor and why they are effective.

Illustration 4.1 Relational Study Data Grouping by Identified Factor.



Intervention/Treatment Components

The included studies were first data grouped by the *intervention/treatment components* factor. These components were categorized and grouped by individual and family therapy, family therapy, and neither individual or family therapy (Illustration 4.1). Results show 26/29 studies used individual therapy and family therapy in their intervention. Three studies (Caspi et al., 2008; Patterson, 2002; Portwood et al. 2011) did not include individual therapy for youth or family therapy. These studies included siblings (Caspi et al. 2008) and parents (Patterson, 2002; Portwood et al. 2011) as part of its intervention/treatment. Also, as part of its intervention/treatment component, 15/29 studies included training of the therapists. The other studies, 14/29, only had the therapists follow a model or program as part of its treatment protocol. Table 4.2 Intervention/Treatment Components is a visual representation of the results by grouping the studies by type of intervention and identifying which intervention/treatment components the studies utilized.

Table 4.2 Intervention/Treatment Components

Type of Intervention	Author (Year)*	Individual Therapy	Family Therapy	Individual & Family Therapy	Neither Individual or Family Therapy
MST	Henggler et al. (1992)	Yes	Yes	Yes	No
	Scherer et al. (1994)	Yes	Yes	Yes	No
	Borduin et al. (1995)	Yes	Yes	Yes	No
	Henggler et al. (1997)	Yes	Yes	Yes	No
	Ogden & Halliday-Boykins (2004)	Yes	Yes	Yes	No
	Schaeffer & Borduin (2005)	Yes	Yes	Yes	No

	Ogden & Hagen (2006)	Yes	Yes	Yes	No
	Butler et al. (2011)	Yes	Yes	Yes	No
	Sawyer & Borduin (2011)	Yes	Yes	Yes	No
	Dekovic et al. (2012)	Yes	Yes	Yes	No
	Wagner et al. (2014)	Yes	Yes	Yes	No
MTFC	Chamberlain & Reid (1998)	Yes	Yes	Yes	No
	Eddy et al. (2004)	Yes	Yes	Yes	No
	Leve & Chamberlain (2005)	Yes	Yes	Yes	No
DTM	Caldwell & Van Rybroek (2001)	No	Yes	No	No
	Caldwell et al. (2006)	No	Yes	No	No
	Caldwell (2011)	No	Yes	No	No
FFT	Sexton & Turner (2011)	No	Yes	No	No
	White et al. (2013)	No	Yes	No	No
	Darnell & Schuler (2015)	No	Yes	No	No
FVIP	Rybski (1998)	No	Yes	No	No
	Nowakowski & Mattern (2014)	No	Yes	No	No
OFT	Hogue et al. (2002)	No	Yes	No	No
	Santisteban et al. (2003)	No	Yes	No	No
Parent-Focused	Patterson (2002)	No	No	No	Yes
	Portwood et al. (2011)	No	No	No	Yes

Miscellaneous	Caspi (2008)	No	Yes	No	No
	Gatti et al. (2009)	No	Yes	No	No
	Jordan et al. (2013)	Yes	Yes	Yes	No

Results from the *intervention/treatment components* data grouping highlight the similarities/differences and strengths/weaknesses of all approaches and answers what makes individual and family therapy together a more effective approach than individual or family therapy alone? First, among the similarities, the majority of studies 26/29, utilized individual and family therapy. This result emphasizes the importance studies place on including both individual and family therapy when addressing NIP-YFV. On the other hand, the three studies that did not include youth as part of the therapy emphasized other aspects of NIP-YFV including siblings (Caspi et al., 2008) or parents (Patterson, 2002; Portwood et al., 2011) as part of its intervention/treatment. Even though using both individual and family therapy is a similarity across the majority of studies, the individual and family approaches is a clear difference. For example, to address individual therapy, some studies utilized Cognitive Behavioral Therapy or Solution Focused Brief Therapy, some studies used behavioral training or skills training for individual therapy, and some studies utilized a combination of both. Regarding family therapy, different approaches include family, parental training Another similarity focuses on another aspect of individual and family therapy, the training of therapists. Over half 15/29 studies utilized therapist training as part of its intervention, and the other studies 14/29 had therapists follow models or programs to implement the intervention/treatment. It is important to note that each study (15/29) that utilized training also used individual and family therapy as part of its intervention/treatment components.

Along with the similarities/differences observed, there are also strengths/weaknesses found across the studies. The strengths and weaknesses are found by how the studies address the intervention/treatment component. Several studies (Borduin et al., 1995; Chamberlain & Reid, 1998; Sexton & Turner, 2011) provide evidentiary support that individual and family therapy together is more effective than individual or family therapy alone to address NIP-YFV. Based on these findings, a strength among the studies is the majority 26/29 studies do utilize a form of both individual and family therapy. On the other hand, a weakness observed in the three studies (Caspi et al., 2008; Patterson, 2002; Portwood et al. 2011) did not use individual or family therapy. Individual therapy is a weakness because unable to address any family dysfunction which may have been the cause of youth violence. Similar to individual therapy, family therapy alone is a weakness because it does not address any psychological problems (depression, self-esteem, anger) which may be a factor in NIP-YFV. As part of the individual and family therapy, therapist training was another identifiable strength of the 15/29 studies that implemented training within its intervention "because "the perceived and declarative knowledge increases and holds true across treatment modalities and therapists" (Beidas & Kendall, 2010, p.20). Despite this strength, almost half of the studies 14/29 did not utilize manualized training which weakens the intervention/treatment of those studies.

The previous section identified the strengths and weaknesses of the methods utilized to address the intervention/treatment component which is an important part of the analysis. Another key part of the analysis is discovering why certain methods are considered strong, and certain methods are considered weak in addressing the identified factors. The question proposed is why individual and family therapy together are more effective than individual or family therapy alone in addressing NIP-YFV and the

importance of implementing a training protocol as part of the therapeutic intervention. In order to answer these questions, further analysis of the studies is needed. The first step in answering this question is to understand the nature of NIP-YFV. Cause of NIP-YFV vary from depression, low self-esteem, and unhappiness (Ibabe & Jauregizar, 2010; Paulson, Coombs, & Landsverk, 1990) to parental behavior including permissive parenting style (Howard, Budge, & McKay, 2010) to loss of power in the parents (Coogan, 2011; Tew & Nixon, 2010). The need to address all causes is due to the understanding that problem behavior is multidetermined and linked with the multiple systems in which youths and families are embedded (Henggeler et al., 1997, p.823). Three reasons have been identified why MST (individual therapy and family therapy) produces better results than individual therapy alone because “MST addresses the multiple known determinants of serious anti-social behavior, identified problems are treated in the natural ecology of the youth and his or her family, and the training protocol brings a certain rigor to the therapeutic process” (Henggeler et al., 1997 pp.821-822). These three reasons show the strength in individual and family therapy that lacks in individual therapy. This statement is supported by the two types of NIP-YFV interventions (MST, MTFC) and the 15/29 studies that utilize both individual and family therapy. Each of these studies uses multiple methods to address the youth's behavior, take place in natural settings of youth and family (home, school), and implement a rigorous training protocol for treatment adherence and integrity. The following are examples of the rigorous training protocol implemented by two different types (MST, MTFC) of NIP-YFV that each implemented both individual and family therapy as part of its intervention. An example of MST training protocol would include “6 days of intensive didactic and experimental training along with direct supervision provided by therapist supervisors in individual sessions for treatment integrity” (Henggeler et al., 1997, p.823). It is important

to note that along with the rigorous training of the therapists, MTFC includes training the parents as part of its therapeutic component. This parental training consisted of "pre-service training conducted by project case managers and a former MTFC parent and ongoing supervision of MTFC parents took place during weekly foster parent group meeting and daily phone calls between parents and case manager" (Chamberlain & Reid, 1998, pp.627-628). The previous sections described how studies addressed the *intervention/treatment component* factor along with the similarities/differences and strength/weaknesses across the studies. Further analysis was able to explain why individual and family therapy together along with implementing a training protocol for therapists is more effective than individual or family therapy alone. The next section focuses on the *participants* factor by discussing how studies addressed this factor along with similarities/differences and strengths/weaknesses found across studies. Further analysis will answer why including families with youth in the therapeutic process produce better outcomes than youth alone.

Participants

The second data grouping focuses on the *participants* factor. Studies were grouped within the factor by youth and family participants. Results show 26/29 studies that youth participated, 29/29 studies family members participated. Results are illustrated in Table 4.3 Participants. Studies are grouped by type of NIP-YFV intervention and identified by the study participants. Findings reveal how each study addressed the identified factor of *participants* in its study. The following section will further explore the *participants* factor to identify similarities/differences and strength/weaknesses across the studies. Further analysis will address the why including the family with youth as part of the intervention/treatment produce better results than youth alone.

Table 4.3 Participants

Type of Intervention	Author (Year)*	Youth	Family
MST	Henggler et al. (1992)	Yes	Yes
	Scherer et al. (1994)	Yes	Yes
	Borduin et al. (1995)	Yes	Yes
	Henggler et al. (1997)	Yes	Yes
	Ogden & Halliday-Boykins (2004)	Yes	Yes
	Schaeffer & Borduin (2005)	Yes	Yes
	Ogden & Hagen (2006)	Yes	Yes
	Butler et al. (2011)	Yes	Yes
	Sawyer & Borduin (2011)	Yes	Yes
	Dekovic et al. (2012)	Yes	Yes
	Wagner et al. (2014)	Yes	Yes
MTFC	Chamberlain & Reid (1998)	Yes	Yes
	Eddy et al. (2004)	Yes	Yes
	Leve & Chamberlain (2005)	Yes	Yes
DTM	Caldwell & Van Rybroek (2001)	No	Yes
	Caldwell et al. (2006)	No	Yes
	Caldwell (2011)	No	Yes
FFT	Sexton & Turner (2011)	No	Yes
	White et al. (2013)	No	Yes
	Darnell & Schuler (2015)	No	Yes
FVIP	Rybski (1998)	No	Yes
	Nowakowski & Mattern (2014)	No	Yes
OFT	Hogue et al. (2002)	No	Yes
	Santisteban et al. (2003)	No	Yes
	Patterson (2002)	No	Yes

Parent-Focused	Portwood et al. (2011)	No	Yes
Miscellaneous	Caspi (2008)	No	Yes
	Gatti et al. (2009)	No	Yes
	Jordan et al. (2013)	Yes	Yes

A deeper look into the method studies used to address the participants factor revealed some similarities and differences. First, one clear similarity across all studies (29/29) is family members participated in the intervention. This shows the value studies place on family involvement in NIP-YFV interventions. Second, one difference is 5/7 types of NIP-YFV interventions had youth participate. Parent-Focused interventions (Patterson, 2002; Portwood et al., 2011) had only parents participate, and one Miscellaneous intervention (Caspi, 2008) had only siblings participate. This illustrates the variance of approaches different types of NIP-YFV interventions have in addressing youth violence. Another difference across studies is the recruitment of participants. For example, the different places participants were recruited from include juvenile courts, foster care, schools, and self-volunteering. This illustrates the effect NIP-YFV has on other areas of youth's lives. Other participants had to go through a screening process. For example, participants in MTFC had to "complete a four-step process including a telephone-screening interview, filling out an application, participating in a home visit, and completing a 20-hour pre-service training "(Chamberlain & Reid, 1998, p. 626). As mentioned earlier, the type of participation may vary across studies. For instance, families may be asked to participate in therapy, interviews, provide observation reports, parental training or a combination of these. These are just some of the similarities and differences observed across the studies.

Along with the similarities and differences, a few strengths and weaknesses were identified. A clear strength of the studies is all studies (29/29) included family as part of its

intervention. This is supported by several studies (Haine-Schlagel et al., 2012; Karver et al., 2006; Shirk & Karver 2003), that conclude individual and family therapy is more effective with violent youth than individual or family therapy alone. On the other hand, three studies (Patterson, 2002; Portwood et al., 2011; Caspi, 2008) did not include youth as part of its intervention which is a weakness. Another aspect of participation in the voluntary vs involuntary involvement. Evidence shows “a tendency for voluntary clients to express much more engagement in the change process than mandated clients” (O’Hare, 1996, p.420). The more engaged or level of involvement the youth has in treatment, the greater the likelihood to see positive change. This demonstrates the strength studies with voluntary participants have over studies with mandated participants.

After identifying the similarities/differences and strengths and weaknesses of methods the studies use to address the participants factor, further analysis is needed to understand why some of these methods are considered strong and some are considered weak. The question proposed is why is it better to include both youth and families in the intervention/treatment than youth alone? In order to answer this question, a deeper look into why the studies (Haine-Schlagel et al., 2012; Karver et al., 2006; Shirk & Karver 2003) made that conclusion is needed. One reason is each of these studies showed positive results of the parent participation factor had on youth treatment. Another is reason for the conclusion is explained by "parents have a significant impact on the lives of their children and this if the parents are actively working in treatment, it is more likely that they will be making changes that will result in an environment more conducive to positive youth outcomes" (Karver et al., 2006, p.59). Another study by Haine-Schlagel and Walsh (2015) also supported the conclusion of the positive effect family participation has on youth. This study reviewed twenty-three published articles focusing on parent participation engagement in child and family mental health treatment. Other results

revealed some demographic information of the participants involved in therapy. After review of the articles, findings from Haine-Schlagel and Walsh (2015) show 1) over half the articles (11, 52%) focused on children with disruptive behavior disorders; 2) over half (11, 52%) focused on adolescence (age 13-17); 3) 89% (17) included both male and female, and 11% (2) were male only participants; 4) 100% (13) Non-Hispanic Caucasian, 77% (10) African American, and 62% (8) Latino-Hispanic" were the ethnicity make up of participants. Other findings from the Schlagel and Walsh (2015) revealed some demographics of the parents who participated. These include: 1) 60% (9) both male and female, 33% (5) female only, 6% (1) male only; and 2) 100% (6) Non-Hispanic Caucasian, 100% (6) African American, and 66% (4) Asian/Pacific and Latino/Hispanic. These results illustrate why parents' participation is key for successful treatment outcomes for youth and the makeup of youth and parents who participated in treatment. This section revealed the methods of how studies addressed the identified factor of *participants*, along with the similarities/differences and strengths/weaknesses of those methods. Also, this section was able to answer why individual and family involvement in treatment produces better outcomes than youth alone. These findings help determine why certain NIP-YFV interventions are more effective than others. The following section focuses on the identified factor of research methodology, by describing the results of the data grouping, and the similarities/differences and strength and weaknesses of those methods. Also, answering the question of why RCTs are considered the strongest research methodology.

Research Methodology

The third data grouping focuses on the *research methodology* factor. Studies were grouped together if they used RCTs, and the studies that used another study design (Table 2.2) were grouped together. Results show 11/29 studies used RCT, 17/29 studies

used a case-controlled design, and one study used a quasi-experimental design. Table 4.4 Research Methodology illustrates these results by grouping studies together by type of NIP-YFV intervention along with the level of research methodology used.

Table 4.4 Research Methodology

Type of Intervention	Author (Year)*	Research Methodology (Level 1-5)
MST	Henggler et al. (1992)	1
	Scherer et al. (1994)	3
	Borduin et al. (1995)	3
	Henggler et al. (1997)	1
	Ogden & Halliday-Boykins (2004)	1
	Schaeffer & Borduin (2005)	1
	Ogden & Hagen (2006)	1
	Butler et al. (2011)	3
	Sawyer & Borduin (2011)	1
	Dekovic et al. (2012)	3
	Wagner et al. (2014)	1
MTFC	Chamberlain & Reid (1998)	1
	Eddy et al. (2004)	1
	Leve & Chamberlain (2005)	3
DTM	Caldwell & Van Rybroek (2001)	1
	Caldwell et al. (2006)	3
	Caldwell (2011)	1
FFT	Sexton & Turner (2011)	1
	White et al. (2013)	3
	Darnell & Schuler (2015)	2
FVIP	Rybski (1998)	3

	Nowakowski & Mattern (2014)	3
OFT	Hogue et al. (2002)	3
	Santisteban et al. (2003)	3
Parent-Focused	Patterson (2002)	3
	Portwood et al. (2011)	3
Miscellaneous	Caspi et al. (2008)	3
	Gatti et al. (2009)	3
	Jordan et al. (2013)	3

Based on the results of the data grouping, similarities and differences were identified. First, over half of the studies, 16/29 used case-controlled design (Level 3) as its NIP-YFV. On the other hand, 11/29 studies utilized a different research methodology. Second, a variance of research methodology utilized was found within each type of NIP-YFV intervention. For instance, in MST, 7/11 MST studies used RCTs and 4/11 used case-controlled designs. This demonstrated that many ways to address NIP-YFV even using the same type of intervention. Variance can also be found within the other types of NIP-YFV including MTFC, DTM, and FFT. Sampling was another component of the research methodology examined and a clear difference across studies. Sample size variance was found across studies including, size from four participants (Caspi et al., 2008) to 917 families (Sexton & Turner, 2011); and participants from male only (Hogue et al., 2002), parents only (Patterson, 2002; Portwood et al., 2011), ethnicity focused (Santiseban et al., 2003 – Hispanic families; White et al., 2003 – African American). Another component of the research methodology is the inclusion of any follow-up as part of the procedures. Findings reveal only 12/29 studies implemented a follow-up into its research procedures.

These similarities and differences identified help analyze the studies for strength and weaknesses. The first identified strength is 11/29 studies utilized the highest level of

research methodology (Level 1 – RCTs). However, an identifiable weakness is the majority of studies (18/29) used a lower level of methodology (Level 3 – case-controlled design). Sampling across the studies revealed strength and weaknesses. Studies that used a small sample or a specific focus (only including males, parents, African Americans) limits the generalizability of its findings. Also, findings related to the implementation of a follow-up show some strength and weaknesses. Studies that implement a follow-up as part of its research procedures can determine the long-term effects of its intervention whereas studies that don't use a follow-up can't conclude any positive or negative long-term effects of their treatment has on youth violence.

Along with identifying the similarities/differences and strengths/weaknesses among research methodologies, it is important to understand why certain methods the studies used to address the *research methodology* factor are considered strong and some methods considered weak. One way to understand the strengths and weaknesses of research methodology is to understand why RCTs are considered the "best evidence" (Petrisor & Bhandari, 2007, p.12) and the highest level of research according to the hierarchy of evidence (Table 2.2). In order to do this, the strengths and limitations of RCTs are examined. One strength in RCTs is in the "natural randomization and the ability to help control for bias" (Petrisor & Bhandari, 2007, p.12). This is done by controlling for variables by equally distributing the variables between the experimental and control group. Another strength of RCTs and consequently a weakness among other study designs is the inclusion of a control group. "RCT's, through the experimental and control groups, can see the effect through of the intervention through comparison whereas case-controlled studies can only focus on the one group (experimental) to discover any effects (Petrisor & Bhandari, 2007, p.13). On the other hand, one limitation of utilizing RCTS is the threat to external validity. RCTs include a specific group of participants with a specific

problem that may or may not be generalizable to larger or other populations. These are just a few things to consider when determining the effectiveness of an intervention. This section was able to identify the similarities/differences and strength/weaknesses of the research methodologies used by the included NIP-YFV interventions. Also, analyzing the methods to understand why certain methods are strong and certain methods are weak help explain why certain NIP-YFV interventions have better outcomes than others. The next section examines how studies addressed the identified treatment factor *measurement* through identifying the similarities/differences, strengths/weaknesses, and answering why certain measurement is stronger than others.

Measurement

The last data grouping of identified factors of treatment success was on measurement. Studies were grouped according to the factors of NIP-YFV they addressed. For example, studies that focused on interpersonal factors were grouped together, and studies that addressed both personal and interpersonal factors were grouped together (Illustration 4.1). Findings reveal only 3/8 types of NIP-YFV interventions (MST, MTFC, FVIP) addressed both personal and interpersonal factors of NIP-YFV, and all NIP-YFV intervention types (8/8) addressed interpersonal factors. Results can be seen in Table 4.5 Outcome Measures to illustrate the various instruments used in the studies along with the factors they address. This section further explores the measurements used in NIP-YFV interventions by identifying the similarities/differences, strengths/weaknesses, and discovering what makes a good measurement for addressing NIP-YFV? In order to help analyze the identified factor of measurement, studies were first grouped together by type of intervention along with a description of all the outcome measures utilized.

Table 4.5 Outcome Measures

Intervention	Personal Factors	Interpersonal Factors
MST	CBCL	FACES, RBPC, CBCL, SRD, Criminal Records,
MTFC	CBCL	DPA, Criminal Records, CBCL, Self-Reports, DFQ
DTM		Criminal Records, Self-Reports, PCL-YV
FFT		WAJCA-RA, BAS, Criminal Records, FFT forms, ICU
FVIP	CAFAS	Criminal Records, Self-Reports, FCS, MAI, SPAA
OFT		YSR, SPAA, DAFS, FES, RBPC, FCS, PMS
Parent		CS-FES, PSS-FFS, PSI, POMS, GHQ, VBQ, PBC
Miscellaneous		SSE, TCSA, Self-Reports, Criminal Records, Observation

MST Outcome Measures

Family Adaptability and Cohesion Evaluation (FACES I, II, III). FACES was developed to analyze the cohesion and adaptability in family interactions. FACES II is a 30-item questionnaire designed to get family members to describe their relationships. FACES III is an adaptation from the earlier versions. The two parts of FACES III is asking family members the truth behind certain statements such as "family members ask each other for help." Also, family members are asked what an ideal situation would look like. Each scale is an attempt to measure the adaptation and cohesion in families. Henggler et al. (1992) - FACES III which measure family relations revealed a significant change in. Borduin et al. (1995) - FACES-II revealed significant findings including observed mother-adolescent relations, observed father-adolescent relations, and observed mother father

relations. The results of these measures showed significant in improvement individual adjustment based upon parent's report of symptomology, an increase in family cohesion for families receiving MST, and based upon the observational measures, MST showed much more promising results than participants in IT. Henggler et al. (1997) - FACES-III revealed positive results in family relations including adolescent reports, parent reports of family cohesion, and parent reports for the General Index of the FAM-III. Results show adherence to the MST was a key indicator for adolescent's criminal activity and incarceration based upon a 1.7-year follow-up. Ogden and Halliday-Boykins (2004) - Internal behavior showed significant decrease and external behaviors. Results support previous studies that demonstrate the effectiveness MST has on other treatments (CWS).

Revised Behavior Problem Checklist (RBPC). The RBPC contains 77 items forming six subscales including conduct disorder, socialized aggression, attention problems-immaturity, anxiety withdrawal, psychotic behavior, and motor excess. The 3-point scale was rated by parents from 0 = no problem to 2 = severe problem. Reliability of the coefficients ranges from .49 for the socialized aggression subscale to .83 for the attention problems-immaturity subscale. Henggler et al. (1992) – The results for RBPC were non-significant. Scherer et al. (1994) - The RBPC results show significant positive effects for obsessive-compulsive, interpersonal sensitivity, depression, and general distress index. MFP demonstrated the ability to produce positive change in the rural and African American families (youth and parents), and a reduction in parents' symptomatology. Henggler et al. (1997) - The main positive effect was for observed for parental reports of youth behavior problems on the RBPC, with the frequency of reported problems decreasing in both groups.

Child Behavior Checklist (CBCL). The measure contained 113 behaviors and 20 social competence problems items focused on both internal and external behavior. Both

internal and external behaviors were high (.81 > α < .94) reliability. Ogden and Halliday-Boykins (2004) – treatment effects differed significantly across sites for both internalizing and externalizing behavior. Leve and Chamberlain (2005) - Results show youth had less delinquent peer associations following treatment of MTFC. Significant findings reveal girls had a higher prepotency for associating with delinquent peers than boys. Ogden and Hagen (2006) - Within CBCL results, parents and teachers reported the youth showed zero effect. MST showed significantly better results in these areas as compared to RS. Butler et al. (2011) - The CBCL recorded externalizing factors such as aggression and delinquency. Findings show the change was in both cases was medium for aggression and delinquency respectively. Results illustrate both MST and YOT interventions showed a reduction in youth offending, and the MST model at 18 months follow up showed a significant lowering in the likelihood of youth reoffending. Dekovic et al. (2012) – One component of the CBCL measures is peer relationships. Also, there was a significant decrease in involvement with deviant peers. One significant finding was the fact MST produced better results in the areas of ODD, CD, externalizing behavior, except violence.

Self-Report Delinquency scale (SRD). The SRD is a 40-item scale that measures the frequency of delinquent acts such as assault, aggravated assault, and hit a parent. Subscales include seven offense-specific subscales, five offense-category subscales, and five summary scales. Reliability for all subscales was above .60, while on the other hand, the larger scales' reliability fell between .40 and .60. Henggler et al. (1992) – Positive effect sizes for rearrests, incarceration, SRD, family cohesion, and peer aggression. Scherer, et al. (1994) - Findings for the general delinquency, felony assault, assault, felony theft, crimes against persons, and index offenses subscales of the SRD were not significant. Ogden and Halliday-Boykins (2004) – Results show high internal consistency with the sample (α =.95). MST youths demonstrated a significant increase in

social competence compared to CS youths. Dekovic et al. (2012) – Results show for positive results for conduct disorder, violence, and association with deviant peers.

Criminal Records/Self Reports. This measure focuses on recidivism and reports by youth, parents, and police. Schaeffer & Borduin (2005), Sawyer & Borduin (2011), and Wagner et al. (2014) each utilized arrest records and reports to measure the reduction in NIP-YFV from participants

MTFC Outcome Measures

Delinquent Peer Association (DPA). DPA measures negative peer association among violent youth through self-reporting. Leve and Chamberlain (2005) report girls had a higher prepotency for associating with delinquent peers than boys. MTFC youth having lower levels of 12-months delinquent peer association than GC youth.

Criminal Records/Self Reports. Chamberlain and Reid (1998) report a clinically significant reduction in criminal referrals. From placement through the year after discharge from treatment, 41% (n = 15) of MTFC boys had no referrals. Eddy et al. (2004) found significant effects were in both criminal referrals, and self-reported violence.

DTM Outcome Measures

Criminal Records/Self Reports. Caldwell and Van Rybroek (2001) reported only one out of 10 participants recidivated. Caldwell et al. (2006) found DTM treatment had significantly lower rates of recidivism than the usual treatment. Only 21% (*n* = 12) of MJTC-treated youths were involved in institutional or community violence within 2 years after JCI release, compared with nearly half (49%, *n* = 42) of the comparison cases. Caldwell (2011) also found a significant reduction in recidivism from the DTM group.

FFT Outcome Measures

WAJCA-RA. This measure is a risk and protective factors assessment. Sexton and Turner (2011) report family risk, family protection, negative peer relations, and criminal history as dependent variables revealed a significant effect.

Behavior Assessment Scale (BAS). The BAS widely used to assess the emotional and behavioral functioning and self-perceptions of children and adolescents. Subscales of the BAS were also used including Emotional Symptoms Index (ESI), the Interpersonal Relations (IR), and Relations with Parents (RP) subscales were used from the youth self-report form, while the Conduct Problems (CP) and Aggression (AG) subscales were used from the parent report form. White et al. (2013) report significant improvements were found overtreatment in both the parent reported aggression and the conduct problems.

Criminal Records/Self Reports. Sexton & Turner (2011) show FFT was no more effective in reducing recidivism than services offered by the probation department. Darnell and Schuler (2015) show showed a reduction in rate in Out of Home Placements (OHPs) with significantly lower rates for FFT and FFP 1-3 months post-treatment, but similar rates 18 months out with the control group.

FVIP Outcome Measures

Child and Adolescent Functioning Assessment Scale (*CAFAS)*. CAFAS measures psychosocial and emotional functioning. Rybski (1998) report positive findings in functioning.

Siegel Multidimensional Anger Inventory (MAI) and State-Trait Anger Scale (STAS). MAI and STAS measure anger. Rybski (1998) showed There were no significant main effects for the dependent variables youth anger, and parent anger.

Criminal Records/Self Reports. Nowakowski and Mattern (2014) report similar findings for male or female participants with a reduction in violent behavior after

completion of the program. Significantly more white youth perpetrated violence than other races.

OFT Outcome Measures

Self-perception Profile for Adolescents (SPAA). SPAA measures adolescent self-concept. Hogue et al. (2002) found significant improvement in youth's self-concept.

Family Cohesion Scale (FCS). FCS measures the family functioning. Hogue et al. (2002) also found significant improvement in the youth's family functioning.

RPBC. The Conduct Disorder and Socialized Aggression subscales of RPBC were used. Santisteban et al. (2003) report significantly better results for the BSFT group than the control group for conduct and socialized aggression conduct disorder, and Socialized Aggression.

FES. Cohesion and Conflict scales from FES which measure family functioning were used. Santisteban et al. (2003) showed no significant change from the BFST group than the control group for family functioning.

Parent-Focused Outcome Measures

Parent Behavior Checklist (*PBC)*. PBC measures effective parenting. Portwood et al. (2011) significant changes over time in Harsh Discipline measure and Nurturing measure.

Conflict Scale-Family Environment (CS-FES). CS-FES measures the amount of family conflict. Portwood et al. (2011) report a statistically significant change in the decrease of family conflict over time

Miscellaneous Outcome Measures

Client-reported problem change assessment (SSE). Caspi et al. (2008) report a reduction in fights, aggression, and violence for all 4 case studies.

Criminal Records/Self Reports. Gatti et al. (2009) report the intervention by the juvenile justice had a positive impact on delinquency, criminality, and other behavior problems in youth.

The Child and Youth Resilience Measure (CYRM), The Solution Based Inventory (SBI), Multidimensional Adolescent Assessment Scale (MAAS), Navaco Anger Scale and Provocation Inventory (NASPI). Jordan et al. (2013) clients shown an increase in resilience and the ability to build solutions. Also, a decrease in alcohol, drug abuse, and aggression was reported.

Based on the descriptions of the all the outcome measures utilized in NIP-YFV interventions, similarities and differences were identified. One similarity was all types of NIP-YFV interventions (8/8) addressed interpersonal factors. On the other hand, a key difference, only 3/8 types of NIP-YFV (MST, MTFC, FVIP) addressed personal factors. Another similarity is almost all 28/29 studies addressed interpersonal factors, with the one difference (Rybski, 1998) focusing on personal factors only. Also, looking at the individual measures, almost all measures focused on interpersonal factors except two measures (CBCL, CAFAS) that addressed personal factors.

After identifying similarities and differences, strength and weaknesses were observed across the studies. Strengths and weaknesses are determined by the methods the studies utilized to address the identified factor of measurement. A strong method for addressing measurement is identified by the study addressing both personal and interpersonal factors, high reliability/validity, and the use of triangulation (Schaeffer & Borduin, 2005; Caldwell, 2011; Rubin & Babbie, 2005; Weyers et al., 2014). Based on these criteria several strengths and weaknesses were found. An identified strength was one study (Ogden & Halliday-Boykins, 2004) addressed both the personal and interpersonal factors of NIP-YFV. On the other hand, a weakness, almost all 28/29

studies did not address both factors. When looking at the type of NIP-YFV interventions, two types (MST, MTFC) included studies that addressed either personal or interpersonal factors. On the other hand, the other types of studies (DTM, FFT, Parent-Focused, Miscellaneous, FVIP, OFT) only focused on addressing the interpersonal factors of NIP-YFV and did not address any personal factors. Another strength was multiple studies used triangulation to measure NIP-YFV (e.g. Ogden & Halliday-Boykins, 2004; Henggler et al., 1997; Scherer et al., 1994). Despite this strength, several studies (e.g. Caldwell & Van Rybroek, 2001; Sexton & Turner, 2011; Portwood et al., 2011) did not implement multiple methods to measure factors of NIP-YFV. Another weakness is with the outcome measures itself. Only one measure (Child Behavior Checklist -CBCL) measured both personal and interpersonal factors. The rest of the measures used in the studies focused on a single type of factor (personal or interpersonal). This raises the need for triangulation in these studies and the concern over the reliability and validity of the measures utilized. This section identified some strengths and weaknesses of how studies addressed the identified factor of measurement. The next section explains why these certain methods are considered strong and some methods considered weak.

The previous sections identified both similarities/differences along with the strengths/weaknesses in the methods studies use to address identified factor of measurement. This section answers the question what is the best outcome measurement plan? In order to answer this question, understanding why high reliability/validity, addressing both personal and interpersonal factors of NIP-YFV, and the use of triangulation all add to the methodological strength studies use in addressing the factor of measurement. The reliability and validity scores refer to the consistency and accuracy of the measure. A study that implements “an instrument with high reliability and validity scores is of better quality than an instrument with low reliability and validity scores”

(Rubin & Babbie, 2005, p.195). Determination of the reliability and validity was made by the information provided through the analysis of each study and using Table 2.4. for scoring. Another strength of methodology studies is addressing both personal and interpersonal factors. Schaeffer and Borduin (2005) and Caldwell (2011) both emphasize the importance of measuring both personal factors (e.g., depression, anger, drug/alcohol abuse) and interpersonal factors (e.g., peer relations, family relations, behavior problems) as each has been determinants of violence in youth. Results of the outcome measures help determine the effectiveness of the intervention by how well it addresses these factors and the overall reduction of youth violence (Schaeffer & Borduin, 2015; Caldwell, 2011). The third methodological strength studies use to address measurement is triangulation. A study uses triangulation by using multiple methods to measure. For example, a study that uses rearrests reports, observational reports by parents, and self-reports by youth to measure violence. The benefit of triangulation is "studies that use triangulation has a higher reliability and validity than studies that don't" (Weyers et al., 2014, p.210). Studies with higher validity can more accurately determine the results from the outcome measures than studies with low validity, and therefore the overall effectiveness of the intervention. Reliability/Validity, measuring personal and interpersonal factors, and triangulation together provide the best outcome measurement plan to address the identified factor of measurement. The previous sections on measurement were able to identify similarities/differences, strengths/limitations, and the best outcome measurement plan for NIP-YFV. The following section details the assessment of synthesis, the last step of the narrative synthesis. All included studies are analyzed based on how they addressed the four identified factors for treatment success and given an overall weight of evidence along with a critical reflection on the synthesis process.

Assessment of Synthesis

The assessment of synthesis is the final component of the narrative synthesis. This assessment evaluates the included studies using two different approaches. First, Popay et al. (2002) approach, analyzes studies based on methodological soundness, trustworthiness, appropriateness, and relevance. Each study is given a score for how it addresses each factor and given a score for overall weight. These factors help determine the overall quality of the study. The second approach, identified factor approach, analyzes studies based on how well they address the four identified factors (intervention/treatment components, participants, research methodology, measurement) of treatment success. Similar to the Popay et al. (2006) approach, each study is given a score on how well it addresses these factors and a score for overall weight. These two approaches combined provide a comprehensive synthesis by determining the quality of the study, and how well it addresses the factors critical for treatment success. Results of this synthesis will help in identify effective interventions for NIP-YFV.

Popay et al. (2006) approach

Popay et al. (2006) approach helps determine the overall quality of a study by evaluating the studies based on the factors including methodological soundness, trustworthiness, appropriateness/ relevance. Studies are given a Low, Medium, or High score depending on how well they address each factor. The overall weight score is an overall analysis of how the study addresses all the factors. The methodological soundness factor was based on the research methodology was analyzed. For example, studies that used a strong research methodology (e.g. RCTs) scored a High for the methodological soundness factor. If studies used a lower level of research methodology (e.g. case-controlled) than the study received a lower score (Medium). The trustworthiness factor was based on the reliability scoring of the study. Studies that have

high reliability received a High score, and studies that had low reliability received a Low for the trustworthiness factor. The scoring of reliability was made through the information gathered through the analysis of each study as well as Table 2.2. Appropriateness/relevance was determined if the study addressing NIP-YFV, by implementing an intervention and including key information such as the research methodology and reliability of the study. Studies that included all information received a High score, studies that included some information scored a Medium, and studies with no information received a Low score. Based on how well the studies addressed all factors, studies were given a score for overall weight ranging from Low to High. Studies that scored High for weight of evidence addressed all factors well, studies that address one or two factors well received a Medium score, and studies which poorly addressed the factors or not at all received a Low score. The results of Popay et al. (2006) approach is presented in Table 4.6.

Table 4.6 Weighting of Studies by Quality (Popay et al., 2006)

Type of Intervention	Author (Year)*	Methodological Soundness	Trustworthiness	Appropriateness/Relevance	Overall Weight
MST	Henggler et al. (1992)	High	Medium	High	High
	Scherer et al. (1994)	Medium	High	High	High
	Borduin et al. (1995)	Medium	Medium	High	High
	Henggler et al. (1997)	High	High	High	High
	Ogden & Halliday-Boykins (2004)	High	High	High	High
	Schaeffer & Borduin (2005)	High	Low	High	Medium

	Ogden & Hagen (2006)	High	High	High	High
	Butler et al. (2011)	Low	Medium	High	Medium
	Sawyer & Borduin (2011)	High	High	High	High
	Dekovic et al. (2012)	Medium	Low	High	Medium
	Wagner et al. (2014)	High	High	High	High
MTFC	Chamberlain & Reid (1998)	High	Low	High	Medium
	Eddy et al. (2004)	High	Low	High	Medium
	Leve & Chamberlain (2005)	Medium	Low	High	Medium
DTM	Caldwell & Van Rybroek (2001)	High	Low	High	Medium
	Caldwell et al. (2006)	High	Low	High	Medium
	Caldwell (2011)	Medium	Low	High	Medium
FFT	Sexton & Turner (2011)	High	High	High	High
	White et al. (2013)	Low	Low	Low	Low
	Darnell & Schuler (2015)	High	Low	High	Medium
FVIP	Rybski (1998)	Low	Low	High	Medium
	Nowakowski & Mattern (2014)	Low	Low	High	Medium
OFT	Hogue et al. (2002)	Medium	Low	High	Medium
	Santisteban et al. (2003)	Low	Low	High	Medium

Parent-Focused	Patterson (2002)	Medium	Low	High	Medium
	Portwood et al. (2011)	Low	Low	High	Medium
Miscellaneous	Caspi (2008)	Low	Low	High	Medium
	Gatti et al. (2009)	Low	Low	High	Medium
	Jordan et al. (2013)	Medium	High	High	High

Findings from the Popay et al. (2006) approach. Results show 9/29 studies ranked High for the weight of evidence. MST studies had the highest scores among NIP-YFV interventions. All studies ranked High for relevance to NIP-YFV, but the variance of scoring (Low to High) was found for methodological soundness, trustworthiness, and appropriateness. This set criteria provides a way to determine overall quality included studies. The following section adds to this analysis by determining the level of treatment success in the studies by determining how well the studies address each of the identified factors.

Identified Factor Approach

The researcher in this study produced a Weight of Evidence scale based on the four identified factors, intervention/treatment components, participants, research methodology, and measurement. Results are illustrated in Table 4.7 and discussed. The researcher graded all 29 studies by the identified factors and given an overall grade for Weight of Evidence (Table 4.7 Weight of Evidence by Identified Factors). Studies were given a score of 0 – 2 for intervention/treatment components. A score of 0 for studies that did not include either individual or family therapy, a score of 1 if individual or family is used, and a grade of 2 if both individual and family are utilized due to the strength of utilizing both therapies (Borduin et al., 1995, Chamberlain & Reid, 1998, Sexton &

Turner, 2011). Studies were graded 0 – 2 for the participants' factor. A grade of 0 was given if the study did not include the youth or family in the intervention, a grade of 1 if the study used either youth or family and a grade of 2 if both youth and family participated in the intervention due to the proven effectiveness of youth and parent involvement (Karver et al., 2006; Haine-Schlagel et al., 2012; Shirk & Karver, 2003). For the identified factor of research methodology, studies were given a score of 1 – 5 based on Table 2.2. Hierarchy of Evidence. Studies were given a score of 5 if they utilized the highest level of evidence, experimental studies (RCTs), score of 4 if quasi-experimental was used, and a score of 3 of controlled observational or case-control design was used. Studies were given a score of 0 – 2 for the measurement factor. A score of 0 was given if the study did not measure personal or interpersonal factors, a score of 1-3 if the study measured either personal or interpersonal factors, level of reliability and validity, and use of multiple measures, and a score of 4-6 if the study addressed both personal and interpersonal factors of NIP-YFV, had high reliability/validity as evidence of strength in a measure (Rubin & Babbie, 2005, p.195), and used triangulation to measure factors to demonstrate reliability and validity (Weyers et al., 2014, p.42). The higher the score for a study, the greater the weight of evidence, and stronger support for treatment effectiveness. Table 4.7 visually represents these results.

Table 4.7 Weight of Evidence by Identified Factors

Type of Intervention	Author (Year)*	Intervention/ Treatment Components	Participants	Research Methodology	Measurement	Overall Weight
MST	Henggler et al. (1992)	2	2	5	3	12
	Scherer et al. (1994)	2	2	3	3	10
	Borduin et al. (1995)	2	2	3	2	9

	Henggler et al. (1997)	2	2	5	3	12
	Ogden & Halliday-Boykins (2004)	2	2	5	6	15
	Schaeffer & Borduin (2005)	2	2	5	2	11
	Ogden & Hagen (2006)	2	2	5	3	12
	Butler et al. (2011)	2	2	3	2	9
	Sawyer & Borduin (2011)	2	2	5	2	11
	Dekovic et al. (2012)	2	2	3	2	9
	Wagner et al. (2014)	2	2	5	2	11
MTFC	Chamberlain & Reid (1998)	2	2	5	5	14
	Eddy et al. (2004)	2	2	5	2	11
	Leve & Chamberlain (2005)	2	2	3	3	10
DTM	Caldwell & Van Rybroek (2001)	1	1	5	4	11
	Caldwell et al. (2006)	1	1	3	3	8
	Caldwell (2011)	1	1	5	2	9
FFT	Sexton & Turner (2011)	1	1	5	3	10
	White et al. (2013)	1	1	3	2	7
	Darnell & Schuler (2015)	1	1	4	2	8

FVIP	Rybski (1998)	1	1	3	2	7
	Nowakowski & Mattern (2014)	1	1	3	2	7
OFT	Hogue et al. (2002)	1	1	3	3	8
	Santisteban et al. (2003)	1	1	3	2	7
Parent-Focused	Patterson (2002)	1	1	3	3	8
	Portwood et al. (2011)	1	1	3	2	7
Miscellaneous	Caspi (2008)	1	1	3	2	7
	Gatti et al. (2009)	1	1	3	2	7
	Jordan et al. (2013)	2	2	3	6	13

Several observations were made from identified factor approach. First, MST (11 average) and MTFC (11.6 average) interventions scored higher in weight of evidence than other types of NIP-YFV interventions. On the other hand, FVIP interventions had the lowest average scores (7) among types of NIP-YFV interventions. Second, the study conducted by Ogden and Halliday-Boykins (2004) ranked highest (15) among all studies for the weight of evidence. Third, the identified factor of measurement was the identified factor with the largest variance in scoring (2-6) across the studies. Last, MST and Misc. had the largest variance (6 points) among those studies. The next sections summarize the assessment of synthesis and the narrative synthesis overall.

The findings from the assessment of synthesis were able to identify which studies ranked highest for study quality and weight of evidence for addressing the identified factors of treatment success. The study's methods in analyzing the factors in the Popay et al. (2006) approach (i.e., methodological soundness, trustworthiness,

appropriateness, and relevance) and the factors in the identified factor approach (i.e., intervention/treatment components, participants, research methodology, and measurement) together provided a comprehensive analysis of the included studies.

After critically analyzing the narrative synthesis and results, some important observations were made. First, by constructing textual descriptions of all studies, the preliminary synthesis provided the first step in looking at the relationship of the identified factors within and between studies. The results highlighted the similarities and differences across studies. Second, building on the preliminary synthesis, the relational study further analyzed the studies by identifying the strengths and weaknesses. This was done by understanding why certain methods are strong and certain methods are weak in addressing the identified factors. Third, the assessment of synthesis analyzed the results from the preliminary synthesis and relational study to determine the overall quality and weight of evidence of each included study. Together, these results provide a comprehensive synthesis to show which interventions are most effective for NIP-YFV. The next chapter expands on this analysis by further discussing these key findings as well as the implications for practice, policy, and research.

Chapter 5

Discussion

The previous chapter, through the narrative synthesis, was able to reveal which studies scored highest for study quality and addressing the four identified factors for treatment success. This chapter further explores these findings to identify and explain which interventions are best and why for addressing NIP-YFV. The social work practice, policy, and research implications and recommendations from the key findings along with the limitations of this study are also discussed.

Key Findings from Study

Several key findings were revealed from the analysis of studies through the identified factors. Ogden and Halliday-Boykins (2004) was the highest rated study in weight of evidence. The study had the highest scores for all identified factors including *intervention/treatment components, participants, research methodology,* and *outcome measures*. In other words, Ogden and Halliday-Boykins (2004) was the best because it not only addresses every identified factor of treatment success but addresses each factor thoroughly. For example, Ogden and Halliday-Boykins (2004) addressed the factor *intervention/treatment components* in a thorough way by utilizing both individual and family therapy as part of its intervention resulting in the highest possible score of two according to the scale. Some studies utilized one or neither type of therapy which resulted in a lower score (0 or 1). Another example is with identified factors of *participants*. Ogden and Halliday-Boykins (2004) involved both youth and parents as part of its intervention and scoring a two, the highest possible score for the factor. Based on the *research methodology* factor, Ogden and Halliday-Boykins (2004) scored the because the study utilized a RCT research methodology which is the highest level of evidence (Table 2.2) a study can use. Last, according to the *measurement* factor, Ogden

and Halliday-Boykins (2004) scored the highest because it addressed both the personal and interpersonal factors of youth family violence, had high reliability/validity and utilized triangulation. These findings demonstrate why Ogden and Halliday-Boykins (2004) has the most evidentiary support for treatment success for NIP-YFV.

Along with identifying the strongest overall study (Ogden and Halliday-Boykins, 2004), other findings show which studies scored highest for addressing each of the identified factors *for treatment success including intervention/treatment components, participants, research methodology,* and *measurement.* First, studies that addressed the identified factor of *intervention/treatment components* through implementing both individual and family therapy (e.g. Wagner et al., 2014; Chamberlain & Reid, 1998) were weighted the highest. These studies rated the highest because they address both the personal and interpersonal factors of youth family violence through individual and family therapy which have proven to more effective than only individual therapy (Borduin et al., 1995; Chamberlain & Reid 1998; Sexton & Turner, 2011). Addressing all possible factors will raise the chance of treatment success and effectiveness for NIP-YFV. For example, if anger (personal factor) and poor family relations (interpersonal factor) were causes for NIP-YFV, it is important to address both in treatment. If one or neither factor of NIP-YFV is addressed, then the chance of more youth family incidents is likely to occur because the factors still exist for reoccurrence of youth family violence. Second, studies (e.g. Butler et al. 2011; Wagner et al., 2014) rated highest for addressing the factor of *participants* by including both youth and family in the intervention. The inclusion of both youth and family in the intervention are key to addressing NIP-YFV due to the higher degree of success if both are involved (Karver et al., 2006; Haine-Schlagel et al., 2012; Shirk & Karver, 2003). NIP-YFV effects the youth and family members. In order to solve this problem, both the youth and parents have to part of the solution or intervention.

Third, studies that had a strong *research methodology* (e.g. Caldwell 2011; Sexton & Turner, 2011) weighted the highest. A strong research methodology gives credibility and support to the individual study. Each study was ranked based on their level of evidence (Table 2.2). Fourth, *measurement* was another identified factor for treatment effectiveness. Each study's measurements were analyzed for reliability/validity and methodology (e.g. rearrests records, observation reports), as well as triangulation as each, are determinants of the measure's strength (Rubin & Babbie, 2005; Tate et al., 1995; Weyers et al., 2014). Studies (Jordan et al., 2013; Ogden & Halliday-Boykins, 2004) weighted the highest because they utilized scales to measure both personal and interpersonal factors of youth family violence, had a high reliability and validity score, and used multiple measures to address the factors of youth family violence. This is vital in determining if the intervention is actually addressing the causes (personal and interpersonal factors) and the degree of effectiveness of the intervention through the results. Fifth, the study conducted by Ogden & Halliday-Boykins (2004) was weighted the highest among the 29 included studies. This demonstrates the overall strength of the study by addressing each of the identified factors for treatment effectiveness. Last, MST interventions were rated higher than the other NIP-YFV interventions analyzed. Again, this illustrates the strength MST interventions have in addressing youth family violence. This section identified and explained which interventions are best and why for addressing NIP-YFV. The following sections discuss the practice, policy, and research implications and recommendations from these findings.

Implications and Recommendations

The following implications and recommendations are for social work professionals and other professionals working with NIP-YFV. Each of the following sections consists of a definition of each area (i.e., practice, policy, research) within the

context of social work, explanation of how it connects to NIP-YFV, discussion of the implications from this study's key findings have on each area, and the proposed recommendations social workers should consider.

Implications for Practice

Social work practice is defined as the professional application of social work values, principles, and techniques" (NASW, 2018, paragraph 1). Pertaining to NIP-YFV, social work practice would include any direct work social workers have with violent youth such as providing therapy to the youth, parents or siblings who participate in the intervention. There are several practice implications from this study's key findings. First, NIP-YFV interventions that utilize both individual and family therapy are found to be more effective than individual or family therapy alone (e.g. Wagner et al., 2014; Chamberlain & Reid, 1998). Based on this finding, social workers should be encouraged to use both individual and family therapy when addressing NIP-YFV in order to achieve "best practices" with their clients. Second, including both the youth and parents in the intervention have produced better results than youth alone (Karver et al., 2006; Haine-Schlagel et al., 2012; Shirk & Karver, 2003). It is important to note, social workers may have either the youth, parents, or siblings as a client and should consider involving all parties in the intervention if possible. For example, family therapy with the youth and parent, observation reports from the parents, or interviews are ways social workers can include the parents as part of the NIP-YFV intervention. Third, including training as part of the intervention is critical because "training protocol brings a certain rigor to the therapeutic process" (Henggeler et al., 1997 p.821). In order to ensure a high therapeutic standard, social workers should be trained in the specific type of therapy they will be using with violent youth. This will ensure a higher degree of validity and effectiveness in

treating their NIP-YFV clients. The next section discusses the policy implications from this study's findings.

Implications for Policy

Regarding social work policy, "the policy—practitioner converts policy to practice and provides antennae for policymakers to verify the impact of policy or the need to change and create policy" (Wyers, 1991, p.245). Within the context of NIP-YFV, any policy implication would focus on any change in an agency's treatment protocol that works with violent youth. Several implications from this study's key findings were found. First, findings revealed using both individual and family therapy and including both youth and parents in the intervention are most effective for treatment of youth (e.g. Wagner et al., 2014; Chamberlain & Reid, 1998; Karver et al., 2006; Haine-Schlagel et al., 2012; Shirk & Karver, 2003). This finding supports the need for social workers to be an advocate for their NIP-YFV clients and propose changes in the agency's treatment protocol to include both types of therapies and both youth and parents involved in the intervention. Second, using randomized control trials (RCTs) are the considered the "best evidence" (Petrisor & Bhandari, 2007, p.12) and the highest level of research according to the hierarchy of evidence (Table 2.2). Social workers involved in the agency policy decisions or intervention/treatment creation or implementation should also advocate for RCT designed interventions to help ensure the results produce the "best evidence" (Petrisor & Bhandari, 2007, p.12). This is important for other social workers as it provides evidentiary support to advocate policy changes in their agencies or other institutions addressing NIP-YFV. Third, using triangulation as a method of measurement is considered the best approach because it raises the validity of the results and overall study (Rubin & Babbie, 2005; Tate et al., 1995; Weyers et al., 2014). Social workers again should advocate triangulation be included as part of the intervention with NIP-YFV

clients. This will help ensure accuracy in results and determine the effectiveness of the intervention. Last, another finding within the identified factor of measurement, is the factors being measured. Previously, the support of using multiple methods to measure factors (triangulation) was discussed. Within measurement, the need to address both the interpersonal and personal factors of NIP-YFV is vital because each has been determinants of violence in youth (Schaeffer & Borduin, 2005; Caldwell, 2011). Social workers, as advocates for their clients and policymakers, can support the inclusion of various therapies, participants, and measurements to help ensure all of the factors that lead to NIP-YFV are being addressed. This will increase the likelihood of a reduction in violent youth and NIP-YFV. The next section details the social work research implications from this study's findings.

Implications for Research

Social work research is "research that is conducted through a "social work lens," research that is "applied" in that it informs social work practice and has practice influence by thinking through and making explicit the implications for practice and advances knowledge in general" (Teater, 2017, p.562). In terms of NIP-YFV, research implications would include any evidence that influences direct practice with clients, indirect practice (policy-making) or future research in NIP-YFV. Several research implications were found from this study's findings. First, the research conducted in this study adds to the knowledge base by being the first study to complete a qualitative systematic review and narrative synthesis on NIP-YFV. The methodology and results provide an evidence base to help aid future research on NIP-YFV. Second, the results of this study identified four factors (i.e., intervention/treatment, participants, research methodology, and measurement) of treatment success. A key finding was the identified strength of including both individual and family therapy as part of the intervention. Future research can focus

on figuring out what exact types of individual (e.g., CBT, Solution-Focused) and family (e.g., therapy, training) therapy is best for violent youth. Third, another key finding was the benefit of including the parents as part of the intervention. Participation would include family therapy, training, interviews, and observation reports of the youth. Future research can help determine if a certain type of participation is more effective on the youth than others in NIP-YFV. Fourth, a finding from this study showed the strength of using multiple methods (triangulation) to measure the factors of NIP-YFV. For example, triangulation would include instruments, interviews, observation reports that each can measure a factor (aggression) of NIP-YFV. Future research can help determine which measures are most effective in measuring the personal and interpersonal factors of NIP-YFV. Last, key findings identified the most effective study (Ogden & Halliday-Boykins, 2004) and types (MST, MTFC) of NIP-YFV interventions. Future research can build on these findings by conducting another systematic review to identify new studies and using a narrative synthesis or other methodology (e.g., meta-analysis) to determine effectiveness. It will help ensure social work researchers utilize evidence-based practice as well as meeting ethical obligations of the profession by “monitoring and evaluating policies, the implementation of programs, and practice interventions” (National Association of Social Workers, 2017, 5.02A). The next section discusses the identified limitations of this study.

Limitations of Study

Despite the implications discussed earlier, there are several limitations of this study that must be addressed. This section discusses these limitations, the impact on the findings, as well as recommendations for addressing the limitations in future research. First, a limitation of this study is the methodology used. The narrative synthesis, as compared to a meta-analysis, is the "second best approach for the synthesis of findings" (Popay et al., 2006, p.5). More research is needed before we can determine whether a

meta-analysis would produce different results than the narrative synthesis conducted in this study. Second, The *Cochrane Reviewers' Handbook* (Higgins & Green, 2011) sets forth a protocol for conducting systematic reviews. This protocol was used as a guide and not strictly followed as the methodology for this study which caused several limitations to be identified. For example, one step in the protocol is to search for studies based on the set criteria. In this study, not all studies were able to be searched due to accessibility. Several studies required purchase or a subscription to the journal and were not searched due to lack of available funds. This raises the concern if all possible effective interventions were analyzed in this study. Future research can address this issue by seeking funds through grants, scholarship, and other sources to ensure all studies are accessible and reviewed. Another step in the protocol is the selection of studies. In the *Cochrane Reviewers' Handbook* (Higgins & Green, 2011), it is recommended for at least two researchers to review the studies for inclusion. Due to the author being the sole reviewer, this step was not followed in this study which raises the concern of a thorough and objective process. However, a conscious effort was made to be as objective and thorough as possible. In future studies, a second or third reviewer can verify objectivity and increase the chances of a more rigorous process. Another limitation was raised regarding the data abstraction/coding step in the protocol. In the *Cochrane Reviewers' Handbook* (Higgins & Green, 2011), it is suggested that at least two coders each use a data collection form in order to abstract all necessary data. The author did not follow this step by being the sole coder and not using the data collection form but relying on a checklist as a sufficient tool to obtain all the necessary data from the studies. This raises the issue of an objective and thorough data abstraction process because missing data or information may influence the results of the studies. Future research can address this issue by having another coder can as well as using the data collection form. This section

discussed the identified limitations from this study, but also provided recommendations to address and prevent these in future research. This information is key because this study was a beginning step to address NIP-YFV, but more research is needed to help reduce youth family violence.

Conclusion

The need to address NIP-YFV is great as evidenced by the “over 100,000 violent acts committed by youth against a family member in 2013” (Puzzanchera et al. 2015, para 2) and the “growing body of evidence suggesting it is widespread” (Routt & Anderson, 2011, p.1). We, as social workers, have an ethical obligation to take action by “monitoring and evaluating policies, the implementation of programs, and practice interventions” (NASW, 2017, 5.02A). Using a new application of an established research approach, the systematic review and narrative synthesis, this study fulfills the ethical obligation and addresses the research question of “how would a systematic review and narrative synthesis be applied to NIP-YFV interventions, and what evidence does the literature provide?" The assessment of synthesis and key findings discussed show the importance of this study's findings, further exemplified by the practice, policy, and research implications. Along with understanding the serious issue of NIP-YFV, meeting ethical obligations for social workers, and answering the research question, several key takeaways can be made from this study. First, this study adds to the general knowledge base by being the first study that utilized a systematic review and narrative synthesis to address the area of NIP-YFV. Second, the results of the narrative synthesis analyzed, identified, and explained why interventions are effective for NIP-YFV. Third, the implications from the results of this study provide key information for social work practitioners, policymakers, and researchers. For example, this study detailed recommendations for social work practitioners to implement when working with NIP-YFV

clients to ensure "best practices". Another example, are the recommendations for social workers to be policymakers and advocates for their clients by proposing or creating treatment policy that has evidentiary support for effectiveness with NIP-YFV clients. Social work researchers should consider the recommendations and limitations discussed to build upon this study in future research in NIP-YFV. This study provides a beginning attempt at understanding factors related to treatment success for the youth and provides recommendations to continue to study this area.

Appendix A

Included Study Information

Study (Year) Setting	Participant Characteristics (# of participants, age, gender, sex)	Intervention Modality (individual, group, family)	Designs (RCT & Control, RCT & Comparison, etc..)	Limitations & Comments
Patterson et al. (2002) Clinic	18 mothers	Group	Pre and post	Small sample size
Henggler et al. (1997) Clinic	155 youth and families; average age 15, 81.9% male	Family, group	RCT	Administrative barriers
Jordan et al. (2013) Clinic	50 (43% Caucasian, 53.1% male, 46.9% female, 48.9 percent enrolled in high school or completed	Individual, group, family	Pre and post, 1 year follow up	Small sample size
Henggler et al. (1992) Clinic	96 youth, 76% male, 55% African American	Family, group	RCT	No control or follow up
Borduin et al. (1995) Clinic	176 families	Family, Individual	Pre and post control group design	No follow up, high attrition in IT therapy
Schaeffer & Borduin (2005) Clinic	176; average age 28.8;	records	RCT follow up	High attrition, and lack of records
Sawyer & Borduin (2011) Clinic	176; 76.1% female, 23.9 male; Average age 37.3	records	RCT follow up	21.9 year follow up
Scherer et al. (1994) Clinic	55 (45 males, 10 females)	family, group	Pre-post, random, control, follow up	Lack of conclusion on aspects of MFP most effective
Sexton & Turner (2011) Clinic	917 families from 14 counties; 79 % male; 78% white	Records, 12 month follow up	RCT follow up with control and comparison	Adherence to model by therapist, reliability and validity in measures
Wagner et al. (2014)	129 siblings of violent youth offenders	Records, 25 year follow up	RCT follow up with control and	Inability to determine which aspects of MST were effective

Clinic			comparison (MST vs IT)	
Chamberlain & Reid (1998) Clinic	79 males;	Group, interviews	RCT (MTFC vs Group Care)	Limited to only males
Ogden & Hagen (2006) Clinic	75 (48 males, 27 females)	Records	RCT (MST vs RCS) – 2 year follow up	Lack of school data, youth's own perceptions
Gatti et al. (2009) Clinic	779 participants	Records, every year	Juvenile justice system,	System targets the poorest youth, unreliable measures
Caldwell et al. (2006) Clinic	141 juvenile offenders	Records	2 year follow up (MJTC vs treatment as usual)	Only males participated
Portwood et al. (2011) Clinic	162 parents	Group, interviews	ACT - Control, comparisons, 3-month follow up	Control group was involved in other interventions
Caldwell & Van Rybroek (2001) Clinic	10 violent offenders	Group	RCT: MJTC or JCI (control group)	Small sample size
Caldwell (2010) Clinic	185 (46% White, 43% African American)	Records	RCT: MJTC or JCI (control group)	Study of convenience
Ogden & Halliday-Boykins (2004) Clinic	100 youth and families	Group and family therapy	RCT: MST vs CW comparison	No follow up and limited back translations
White et al. (2013) Clinic	134 youth (71.6% males, 59% African American0	records	3 & 6 month follow up of FFT	Focus primarily on re-arrest records
Santisteban et al. (2003) Clinic	126 Hispanic families	Group and family therapy	BSFT vs GC: experimental - Pre-& post	No follow up, some measures incomplete, only Hispanic families
Leve & Chamberlain (2005) Clinic	153 youth (72 boys and 81 girls)	Group therapy	MTFC: random (pre-& post with control group)	Small sample size and same measure for both sexes

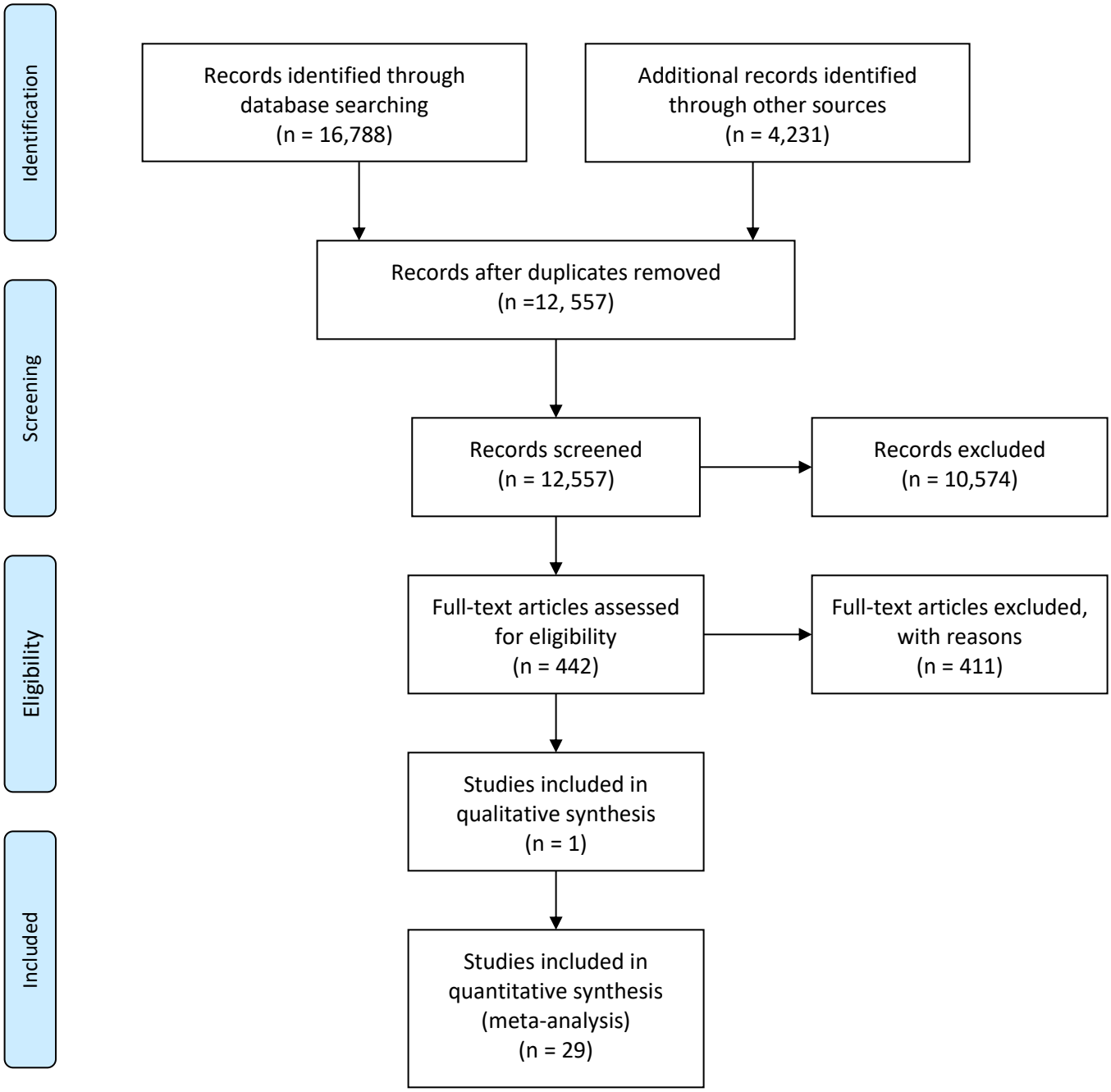
Butler et al. (2011) Clinic	108 families	Group therapy	MST vs YOT (random) with 18 month follow up	Small sample size
Hogue et al. (2002) Clinic	124 African American males	Family and group therapy	MDFP vs control (randomized) 15-25 sessions over a 3-4-month period	No follow up; no difference in effects from families receiving partial or full treatment
Nowakowski & Mattern (2014) Clinic	212 youthful offenders: average age being 15.7 years	Family counseling, conflict resolution	FVIP: 12 anger management sessions	small sample size with purposive sample; incomplete case notes, case files, and documenting inconsistencies
Caspi (2008) Clinic	Pilot study: 4 cases	Task oriented therapy (6 weeks)	TCSA: purposive sample of families who requested	Small sample size
Eddy et al. (2004) Clinic	79 youth: Youth averaged 14.9 years of age	Group, interviews, records	RCT: GC vs MTFC (2 year follow up)	Lack of measures and monitoring/supervision
Darnell & Schuler (2015) Clinic	FFT (524); FFP 216); FFT & FFP (539); Comparison (1442)	FFT (group) FFP (group)	FFT: quasi-experimental (pre-& post, random, follow up)	At 18 months post completion, each group had similar results
Dekovic et al. (2012) MST (clinic, home, schools)	256 adolescents: average age 16.02	MST (group); TAU (individual)	MST vs TAU: random assignment	No long-term follow up
Rybski (1998) Clinic	Adolescents (32 male and 17 female) from juvenile center	Family group therapy	FVPP: random assignment	Objectivity of clinician (knew client before assignment)

.

Appendix B

Decision Flow Diagram

PRISMA Flow Diagram



Appendix C

Data Collection Form

Data Collection Form

Cochrane [NAME] Group

Data collection form for intervention reviews: RCTs and non-RCTs

Version 3, April 2014 ***Replace or delete all text in pink. Modify as necessary before use.***

This form can be used as a guide for developing your own data extraction form. Sections can be expanded and added, and irrelevant sections can be removed. It is difficult to design a single form that meets the needs of all reviews, so it is important to consider carefully the information you need to collect, and design your form accordingly. Information included on this form should be comprehensive, and may be used in the text of your review, 'Characteristics of included studies' table, risk of bias assessment, and statistical analysis.
Using this form, or an adaptation of it, will help you to meet MECIR standards for collecting and reporting information about studies for your review, and analysing their results (see MECIR standards C43 to C55; R41 to R45).

Notes on using data extraction form:

- Be consistent in the order and style you use to describe the information for each report.
- Record any missing information as unclear or not described, to make it clear that the information was not found in the study report(s), not that you forgot to extract it.
- Include any instructions and decision rules on the data collection form, or in an accompanying document. It is important to practice using the form and give training to any other authors using the form.

Review title or ID	
Study ID *(surname of first author and year first full report of study was published e.g. Smith 2001)*	
Report ID	
Report ID of other reports of this study including errata or retractions	
Notes	

Chapter 3 General Information

Date form completed *(dd/mm/yyyy)*	
Name/ID of person extracting data	
Reference citation	
Study author contact details	
Publication type *(e.g. full report, abstract, letter)*	
Notes:	

Chapter 4 Study eligibility

Study Characteristics	Eligibility criteria *(Insert inclusion criteria for each characteristic as defined in the Protocol)*	Eligibility criteria met? Yes	No	Unclear	Location in text or source *(pg & ¶/fig/table/other)*
Type of study	Randomised Controlled Trial	☐	☐	☐	
	Quasi-randomised Controlled Trial	☐	☐	☐	
	Controlled Before and After Study Contemporaneous data collection Comparable control sites At least 2 x intervention and 2 x control clusters	☐	☐	☐	
	Interrupted Time Series At least 3 time points before and 3 after the intervention Clearly defined intervention point	☐	☐	☐	
	Other design (specify):	☐	☐	☐	
Participants		☐	☐	☐	
Types of intervention		☐	☐	☐	
Types of comparison		☐	☐	☐	
Types of outcome measures		☐	☐	☐	
INCLUDE ☐	EXCLUDE ☐				
Reason for exclusion					

Notes:

DO NOT PROCEED IF STUDY EXCLUDED FROM REVIEW

Methods

	Descriptions as stated in report/paper		**Location in text or source** *(pg & ¶/fig/table/other)*
Aim of study *(e.g. efficacy, equivalence, pragmatic)*			
Design *(e.g. parallel, crossover, non-RCT)*			
Unit of allocation *(by individuals, cluster/ groups or body parts)*			
Start date			
End date			
Duration of participation *(from recruitment to last follow-up)*			
Ethical approval needed/ obtained for study	☐ Yes ☐ No ☐ Unclear		

Notes:

Participants

	Description *Include comparative information for each intervention or comparison group if available*	Location in text or source *(pg & ¶/fig/table/other)*
Population description *(from which study participants are drawn)*		
Setting *(including location and social context)*		
Inclusion criteria		
Exclusion criteria		
Method of recruitment of participants *(e.g. phone, mail, clinic patients)*		
Informed consent obtained	☐ Yes ☐ No ☐ Unclear	
Total no. randomised *(or total pop. at start of study for NRCTs)*		
Clusters *(if applicable, no., type, no. people per cluster)*		
Baseline imbalances		
Withdrawals and exclusions *(if not provided below by outcome)*		
Age		
Sex		
Race/Ethnicity		
Severity of illness		
Co-morbidities		

Other relevant sociodemographics		
Subgroups measure		
Subgroups reported		
Notes:		

Copy and paste table for each intervention and comparison group

Intervention Group 1

	Description as stated in report/paper	Location in text or source *(pg & ¶/fig/table/other)*
Group name		
No. randomised to group *(specify whether no. people or clusters)*		
Theoretical basis *(include key references)*		
Description *(include sufficient detail for replication, e.g. content, dose, components)*		
Duration of treatment period		
Timing *(e.g. frequency, duration of each episode)*		
Delivery *(e.g. mechanism, medium, intensity, fidelity)*		
Providers *(e.g. no., profession, training, ethnicity etc. if relevant)*		
Co-interventions		
Economic information *(i.e. intervention cost, changes in other costs as result of intervention)*		
Resource requirements *(e.g. staff numbers, cold chain, equipment)*		
Integrity of delivery		
Compliance		

Notes:

Outcomes

Copy and paste table for each outcome.

Outcome 1

	Description as stated in report/paper	Location in text or source *(pg & ¶/fig/table/other)*
Outcome name		
Time points measured *(specify whether from start or end of intervention)*		
Time points reported		
Outcome definition *(with diagnostic criteria if relevant)*		
Person measuring/ reporting		
Unit of measurement *(if relevant)*		
Scales: upper and lower limits *(indicate whether high or low score is good)*		
Is outcome/tool validated?	☐ Yes ☐ No ☐ Unclear	
Imputation of missing data *(e.g. assumptions made for ITT analysis)*		
Assumed risk estimate *(e.g. baseline or population risk noted in Background)*		

Power *(e.g. power & sample size calculation, level of power achieved)*		
Notes:		

Other

Study funding sources *(including role of funders)*		
Possible conflicts of interest *(for study authors)*		
Notes:		

(See Handbook Chapter 8. Additional domains may be added for non-randomised studies.)

Domain	Risk of bias Low High Unclear	Support for judgement *(include direct quotes where available with explanatory comments)*	Location in text or source *(pg & ¶/fig/table/other)*
Random sequence generation *(selection bias)*	☐ ☐ ☐		
Allocation concealment *(selection bias)*	☐ ☐ ☐		
Blinding of participants and personnel *(performance bias)*	☐ ☐ ☐	Outcome group: All/	
(if separate judgement by outcome(s) required)	☐ ☐ ☐	Outcome group:	
Blinding of outcome assessment *(detection bias)*	☐ ☐ ☐	Outcome group: All/	
(if separate judgement by outcome(s) required)	☐ ☐ ☐	Outcome group:	
Incomplete outcome data *(attrition bias)*	☐ ☐ ☐	Outcome group: All/	
(if separate judgement by outcome(s) required)	☐ ☐ ☐	Outcome group:	
Selective outcome reporting? *(reporting bias)*	☐ ☐ ☐		
Other bias	☐ ☐ ☐		

Notes:

Copy and paste the appropriate table for each outcome, including additional tables for each time point and subgroup as required.

For RCT/CCT
Dichotomous outcome

<table>
<tr><td></td><td colspan="4">Description as stated in report/paper</td><td>Location in text or source (pg & ¶/fig/table/other)</td></tr>
<tr><td>Comparison</td><td colspan="4"></td><td></td></tr>
<tr><td>Outcome</td><td colspan="4"></td><td></td></tr>
<tr><td>Subgroup</td><td colspan="4"></td><td></td></tr>
<tr><td>Time point (specify from start or end of intervention)</td><td colspan="4"></td><td></td></tr>
<tr><td rowspan="3">Results</td><td colspan="2">Intervention</td><td colspan="2">Comparison</td><td rowspan="3"></td></tr>
<tr><td>No. with event</td><td>Total in group</td><td>No. with event</td><td>Total in group</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Any other results reported (e.g. odds ratio, risk difference, CI or P value)</td><td colspan="4"></td><td></td></tr>
<tr><td>No. missing participants</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>Reasons missing</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>No. participants moved from other group</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>Reasons moved</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>Unit of analysis (by individuals, cluster/groups or body parts)</td><td colspan="4"></td><td></td></tr>
<tr><td>Statistical methods used and appropriateness of these (e.g. adjustment for correlation)</td><td colspan="4"></td><td></td></tr>
</table>

Reanalysis required? *(specify, e.g. correlation adjustment)*	☐ Yes ☐ No ☐ Unclear		
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear		
Reanalysed results			
Notes:			

For RCT/CCT
Continuous outcome

	Description as stated in report/paper						Location in text or source *(pg & ¶/fig/table/other)*
Comparison							
Outcome							
Subgroup							
Time point *(specify from start or end of intervention)*							
Post-intervention or change from baseline?							
Results	Intervention			Comparison			
	Mean	SD *(or other variance, specify)*	No. participants	Mean	SD *(or other variance, specify)*	No. participants	
Any other results reported *(e.g. mean difference, CI, P value)*							
No. missing participants							
Reasons missing							

No. participants moved from other group			
Reasons moved			
Unit of analysis *(individuals, cluster/ groups or body parts)*			
Statistical methods used and appropriateness of these *(e.g. adjustment for correlation)*			
Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear		
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear		
Reanalysed results			
Notes:			

For RCT/CCT
Other outcome

	Description as stated in report/paper		Location in text or source *(pg & ¶/fig/table/other)*
Comparison			
Outcome			
Subgroup			
Time point *(specify from start or end of intervention)*			
No. participant	Intervention	Control	

Results	Intervention result	SE (or other variance)	Control result	SE (or other variance)	
	Overall results		SE (or other variance)		
Any other results reported					
No. missing participants					
Reasons missing					
No. participants moved from other group					
Reasons moved					
Unit of analysis *(by individuals, cluster/groups or body parts)*					
Statistical methods used and appropriateness of these					
Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear				
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear				
Reanalysed results					
Notes:					

For Controlled Before-and-After study (CBA)

	Description as stated in report/paper				Location in text or source *(pg & ¶/fig/table/other)*
Comparison					
Outcome					
Subgroup					
Time point *(specify from start or end of intervention)*					
Post-intervention or change from baseline?					
No. participants	Intervention		Control		
Results	Intervention result	SE *(or other variance, specify)*	Control result	SE *(or other variance, specify)*	
	Overall results		SE *(or other variance, specify)*		
Any other results reported					
No. missing participants					
Reasons missing					
No. participants moved from other group					
Reasons moved					
Unit of analysis *(individuals, cluster/ groups or body parts)*					
Statistical methods used and appropriateness of these					

Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear		
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear		
Reanalysed results			
Notes:			

For Interrupted Time Series study (ITS)

	Description as stated in report/paper		Location in text or source *(pg & ¶/fig/table/other)*
Comparison			
Outcome			
Subgroup			
Length of time points measured *(e.g. days, months)*			
Total period measured			
No. participants measured			
No. missing participants			
Reasons missing			
	Pre-intervention	Post-intervention	
No. time points measured			
Mean value *(with variance measure)*			
Any other results reported			
Unit of analysis *(individuals or cluster/ groups)*			

Statistical methods used and appropriateness of these					
Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear				
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear				
Individual time point results					
Read from figure?	☐ Yes ☐ No				
Reanalysed results	Change in level	SE	Change in slope	SE	
Notes:					

	Description as stated in report/paper	**Location in text or source** *(pg & ¶/fig/table/other)*
Key conclusions of study authors		
References to other relevant studies		
Correspondence required for further study information *(from whom, what and when)*		
Notes:		

Assumed risk estimate	An estimate of the risk of an event or average score without the intervention, used in Cochrane 'Summary of findings tables'. If a study provides useful estimates of the risk or average score of different subgroups of the population, or an estimate based on a representative observational study, you may wish to collect this information.
Bias	A systematic error or deviation in results or inferences from the truth. In studies of the effects of health care, the main types of bias arise from systematic differences in the groups that are compared (selection bias), the care that is provided, exposure to other factors apart from the intervention of interest (performance bias), withdrawals or exclusions of people entered into a study (attrition bias) or how outcomes are assessed (detection bias). Reviews of studies may also be particularly affected by reporting bias, where a biased subset of all the relevant data is available.
Change from baseline	A measure for a continuous outcome calculated as the difference between the baseline score and the post-intervention score.
Clusters	A group of participants who have been allocated to the same intervention arm together, as in a cluster-randomised trial, e.g. a whole family, town, school or patients in a clinic may be allocated to the same intervention rather than separately allocating each individual to different arms.
Co-morbidities	The presence of one or more diseases or conditions other than those of primary interest. In a study looking at treatment for one disease or condition, some of the individuals may have other diseases or conditions that could affect their outcomes.
Compliance	Participant behaviour that abides by the recommendations of a doctor, other health care provider or study investigator (also called adherence or concordance).
Contemporaneous data collection	When data are collected at the same point(s) in time or covering the same time period for each intervention arm in a study (that is, historical data are not used as a comparison).
Controlled Before and After Study (CBA)	A non-randomised study design where a control population of similar characteristics and performance as the intervention group is identified. Data are collected before and after the intervention in both the control and intervention groups
Exclusions	Participants who were excluded from the study or the analysis by the investigators.
Imputation	Assuming a value for a measure where the true value is not available (e.g. assuming last observation carried forward for missing participants).

Integrity of delivery	The degree to which the specified procedures or components of an intervention are delivered as originally planned.
Interrupted Time Series (ITS)	A research design that collects observations at multiple time points before and after an intervention (interruption). The design attempts to detect whether the intervention has had an effect significantly greater than the underlying trend.
Post-intervention	The value of an outcome measured at some time point following the beginning of the intervention (may be during or after the intervention period).
Power	In clinical trials, power is the probability that a trial will obtain a statistically significant result when the true intervention effect is a specified size. For a given size of effect, studies with more participants have greater power. Note that power should not be considered in the risk of bias assessment.
Providers	The person or people responsible for delivering an intervention and related care, who may or may not require specific qualifications (e.g. doctors, physiotherapists) or training.
Quasi-randomised controlled trial	A study in which the method of allocating people to intervention arms was not random, but was intended to produce similar groups when used to allocate participants. Quasi-random methods include: allocation by the person's date of birth, by the day of the week or month of the year, by a person's medical record number, or just allocating every alternate person.
Reanalysis	Additional analysis of a study's results by a review author (e.g. to introduce adjustment for correlation that was not done by the study authors).
Report ID	A unique ID code given to a publication or other report of a study by the review author (e.g. first author's name and year of publication). If a study has more than one report (e.g. multiple publications or additional unpublished data) a separate Report ID can be allocated to each to help review authors keep track of the source of extracted data.
Sociodemographics	Social and demographic information about a study or its participants, including economic and cultural information, location, age, gender, ethnicity, etc.
Study ID	A unique ID code given to an included or excluded study by the review author (e.g. first author's name and year of publication from the main report of the study). Although a study may have multiple reports or references, it should have one single Study ID to help review authors keep track of all the different sources of information for a study.
Theoretical basis	The use of a particular theory (such as theories of human behaviour change) to design the components and implementation of an intervention

Unit of allocation	The unit allocated to an intervention arm. In most studies individual participants will be allocated, but in others it may be individual body parts (e.g. different teeth or joints may be allocated separately) or clusters of multiple people.
Unit of analysis	The unit used to calculate N in an analysis, and for which the result is reported. This may be the number of individual people, or the number of body parts or clusters of people in the study.
Unit of measurement	The unit in which an outcome is measured, e.g. height may be measured in cm or inches; depression may be measured using points on a particular scale.
Validation	A process to test and establish that a particular measurement tool or scale is a good measure of that outcome.
Withdrawals	Participants who voluntarily withdrew from participation in a study before the completion of outcome measurement.

References

Bair-Merritt, M. H. (2010). Intimate partner violence. *Pediatrics in Review/American Academy of Pediatrics*, *31*(4), 145. doi: 10.1542/pir.31-4-145

Bank, L., Patterson, G.R., & Reid, J.B. (1987). Delinquency prevention through training parents in family management. *The Behavior Analyst, 10*(1), 75-82. doi: https://doi.org/10.1007/BF03392409

Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of general psychology*, *1*(3), 311-320. doi: http://dx.doi.org/10.1037/1089-2680.1.3.311

Beidas, R. S., & Kendall, P. C. (2010). Training therapists in evidence-based practice: A critical review of studies from a systems-contextual perspective. *Clinical Psychology: Science and Practice*, *17*(1), 1-30. doi: 10.1111/j.1468-2850.2009.01187

Bobic, N. (2004). Adolescent violence towards parents. *Australian and New Zealand Journal of Family Therapy (ANZJFT)*. *37*(4), 547-557. doi: 10.1.1.564.7976

Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: long-term prevention of criminality and violence. *Journal of consulting and clinical psychology*, *63*(4), 569-578. doi: 10.1037/0022-006X.63.4.569

Bronfenbrenner, U. (1997). The ecology of cognitive development: Research models and fugitive findings. *College student development and academic life: psychological, intellectual, social and moral issues*.

Busse, R., Orvain, J., Velasco, M., Perleth, M., Drummon, M., Jorgensen, T., …& Wild, C. (2002). Best practice in undertaking and reporting health technology

assessments. *International journal of technology assessment in health care, 18*(2), 361-422.

Butler, S., Baruch, G., Hickey, N., & Fonagy, P. (2011). A randomized controlled trial of multisystemic therapy and a statutory therapeutic intervention for young offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*, *50*(12), 1220-1235. doi: 10.1016/j.jaac.2011.09.017

Caldwell, M.F. (2011). Treatment-related changes in behavioral outcomes of psychopathy facets in adolescent offenders. *Law and Human Behavior, 35*(4), 275-287. doi: 10.1007/s10979-010-9239

Caldwell, M., Skeem, J., Salekin, R., & Van Rybroek, G. (2006). Treatment response of adolescent offenders with psychopathy features: A 2-year follow-up. *Criminal Justice and Behavior*, *33*(5), 571-596. doi:10.1177/0093854806288176

Caldwell, M.F., & Van Rybroek, G.J. (2001). Efficacy of a decompression treatment model in the clinical management of violent offenders. *International Journal of Offender Therapy and Comparative Criminology, 45*(4), 469-477. doi: 10.1177/0306624X01454006

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner abuse*, *3*(2), 231-280. doi: 10.1891/1946-6560.3.2.231

Caspi, A., Langley, K., Milne, B., Moffitt, T.E., O'Donovan, M., Owen, M.J.,…& Williams, B. (2008). A replicated molecular genetic basis for subtyping antisocial behavior in children with attention-deficit/hyperactivity disorder. *Archives of general psychiatry, 65*(2), 203-210. doi: 10.1001/archgenpsychiatry.2007.24

Chamberlain, P. (2003). *Law and public policy. Treating chronic juvenile offenders: Advances made through the Oregon multidimensional treatment foster care*

model. Washington, DC, US: American Psychological Association. doi: http://dx.doi.org/10.1037/10596-000

Chamberlain, P., & Reid., J.B. (1998). Comparison of two community alternatives to incarceration for chronic juvenile offenders. *Journal of consulting and clinical psychology, 66*(4), 624-633. doi: 10.1037/0022-006X.66.4.624

Cipriani, A., & Geddes, J. (2003). Comparison of systematic and narrative reviews: the example of the atypical antipsychotics. *Epidemiology and psychiatric sciences*, *12*(3), 146-153. doi:10.1017/S1121189X00002918

Coogan, D. (2011). Child-to-parent violence: Challenging perspectives on family violence. *Child Care in Practice*, *17*(4), 347-358. doi: 10.1080/13575729.2011.596815

Cooper, H., & Hedges, L. V. (2009). Research synthesis as a scientific process. In H. Cooper, L. V. Hedges, & J. C. Valentine (Eds.). The handbook of research synthesis and meta-analysis (pp. 431-440). New York: Russell Sage.

Cottrell, B. (2001). *Parent abuse: The abuse of parents by their teenage children*. Ottawa, Canada: Family Violence Prevention Unit, Health Canada.

Darnell, A.J., & Schuler, M.S. (2015). Quasi-experimental study of functional family therapy effectiveness for juvenile justice aftercare in a racially and ethnically diverse community sample. *Children and youth services review, 50*, 75-82. doi: 10.1016/j.childyouth.2015.01.013

Deković, M., Asscher, J. J., Manders, W. A., Prins, P. J., & van der Laan, P. (2012). Within-intervention change: Mediators of intervention effects during multisystemic therapy. *Journal of consulting and clinical psychology*, *80*(4), 574-587. doi: 10.1037/a0028482

Eddy, J. M., Rachel, B. W., & Chamberlain, P. (2004). The prevention of violent behavior by chronic and serious male juvenile offenders: A 2-year follow-up of a

randomized clinical trial. *Journal of Emotional and Behavioral Disorders, 12*(1), 2-8. Retrieved from https://topekalibraries.info/docview/214926188?accountid=29089

Gatti, U., Tremblay, R. E., & Vitaro, F. (2009). Iatrogenic effect of juvenile justice. *Journal of Child Psychology and Psychiatry*, *50*(8), 991-998. doi: 10.1111/j.1469-7610.2008.02057

Gelles, R.J., & Straus, M.A. (1979). Violence in the American family. *Journal of Social Issues, 35*(2), 15-39. doi: 10.1111/j.1540-4560.1979.tb00799

Goldstein, A. P., Glick, B., Reiner, S., Zimmerman, D., & Coultry, T. (1986). Aggression replacement training. Champaign, IL: Research Press.

Haine-Schlagel, R., Brookman-Frazee, L., Fettes, D. L., Baker-Ericzén, M., & Garland, A. F. (2012). Therapist focus on parent involvement in community-based youth psychotherapy. *Journal of Child and Family Studies*, *21*(4), 646-656. doi: 10.1007/s10826-011-9517-5

Haine-Schlagel, R., & Walsh, N. E. (2015). A review of parent participation engagement in child and family mental health treatment. *Clinical Child and Family Psychology Review*, *18*(2), 133-150. doi: 10.1007/s10567-015-0182

Henggeler, S.W., Cunningham, P.B., Pickrel, S.G., Schoenwald, S.K., & Brondino, M.J. (1996). Multisystemic therapy: An effective violence prevention approach for serious juvenile offenders. *Journal of adolescence, 19*(1), 47-61. doi: 10.1006/jado.1996.0005

Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: the role of treatment fidelity in successful dissemination. *Journal of*

consulting and clinical psychology, *65*(5), 821-833. doi: 10.1037/0022-006X.65.5.821

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: an effective alternative to incarcerating serious juvenile offenders. *Journal of consulting and clinical psychology*, *60*(6), 953-961. doi: 10.1037/0022-006X.60.6.953

Higgins JPT, Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions* Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011. Available from www.handbook.cochrane.org.

Hoffman, K. L., & Edwards, J. N. (2004). An integrated theoretical model of sibling violence and abuse. *Journal of Family Violence*, *19*(3), 185-200. doi: 10.1023/B:JOFV.0000028078.71745.a2

Hogue, A., Liddle, H. A., Becker, D., & Johnson-Leckrone, J. (2002). Family-based prevention counseling for high-risk young adolescents: Immediate outcomes. *Journal of Community psychology*, *30*(1), 1-22. doi: 10.1002/jcop.1047

Howard, K. A., Budge, S. L., & McKay, K. M. (2010). Youth exposed to violence: The role of protective factors. *Journal of Community Psychology*, *38*(1), 63-79. doi: 10.1002/jcop.20352

Ibabe, I., & Jaureguizar, J. (2010). Child-to-parent violence: Profile of abusive adolescents and their families. *Journal of Criminal Justice*, *38*(4), 616-624. doi: 10.1016/j.jcrimjus.2010.04.034

Jordan, C., Lehmann, P., Whitehill, K., Huynh, L., Chigbu, K., Schoech, R., ... & Bezner, D. (2013). Youthful Offender Diversion Project. *Best practices in mental health*, *9*(1), 20-30. Retrieved from http://0-

search.ebscohost.com.topekalibraries.info/login.aspx?direct=true&db=asn&AN=87572266&site=eds-live

Karver, M. S., Handelsman, J. B., Fields, S., & Bickman, L. (2006). Meta-analysis of therapeutic relationship variables in youth and family therapy: The evidence for different relationship variables in the child and adolescent treatment outcome literature. *Clinical psychology review*, *26*(1), 50-65. doi:10.1016/j.cpr.2005.09.001

Kennedy, T. D., Edmonds, W. A., Dann, K. T., & Burnett, K. F. (2010). The clinical and adaptive features of young offenders with histories of child-parent violence. *Journal of family violence*, *25*(5), 509-520. doi: 10.1007/s10896-010-9312

Kitchenham, B. (2004). Procedures for performing systematic reviews. *Keele, UK, Keele University*, *33*(2004), 1-26. doi: 10.1.1.122.3308

Leve, L.D., & Chamberlain, P. (2005). Association with delinquent peers: Intervention effects for youth in the juvenile justice system. *Journal of abnormal child psychology, 33*(3), 339-347. doi: https://doi.org/10.1007/s10802-005-3571-7

Liddle, H.A., & Hogue, A. (2000). A family-based, developmental-ecological preventive intervention for high-risk adolescents. *Journal of Marital and Family Therapy, 26(3)*, 265-279. doi: 10.1111/j.1752-0606.2000.tb00297

McNeece, C. A., & Thyer, B. A. (2004). Evidence-based practice and social work. *Journal of evidence-based social work*, *1*(1), 7-25. doi: 10.1300/J394v01n01_02

Monroe, C. M., Van Rybroek, G. J., & Maier, G. J. (1988). Decompressing aggressive inpatients: Breaking the aggression cycle to enhance positive outcome. *Behavioral Sciences & the Law*, *6*(4), 543-557. doi: 10.1002/bsl.2370060410

National Association of Social Workers. (2017). Code of ethics. Retrieved January 1, 2018, from

https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English.

National Association of Social Workers. (2018). Practice. Retrieved October 18, 2018, from https://www.socialworkers.org/Practice

Nowakowski, E., & Mattern, K. (2014). An exploratory study of the characteristics that prevent youth from completing a family violence diversion program. *Journal of Family Violence, 29*(2), 143-149. doi: 10.1007/s10896-013-9572-3

Ogden, T., & Hagen, K. A. (2006). Multisystemic treatment of serious behaviour problems in youth: Sustainability of effectiveness two years after intake. *Child and adolescent mental health*, *11*(3), 142-149. doi: 10.1111/j.1475-3588.2006.00396

Ogden, T., & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. *Child and adolescent mental health*, *9*(2), 77-83. doi: 10.1111/j.1475-3588.2004.00085

O'Hare, T. (1996). Court-ordered versus voluntary clients: Problem differences and readiness for change. *Social Work*, *41*(4), 417-422. Retrieved from https://topekalibraries.info/docview/215274450?accountid=29089

Patterson, G.R. (2002). Etiology and treatment of child and adolescent antisocial behavior. *The behavior analyst today, 3*(2), 133-144. doi: 10.1037/h0099971

Paulson, M. J., Coombs, R. H., & Landsverk, J. (1990). Youth who physically assault their parents. *Journal of family violence*, *5*(2), 121-133. doi: 10.1007/BF00978515

Petrisor, B. A., & Bhandari, M. (2007). The hierarchy of evidence: levels and grades of recommendation. *Indian journal of orthopaedics*, *41*(1), 11-15. doi: 10.4103/0019-5413.30519

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., ... & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *A*

product from the ESRC methods programme Version, *1*, b92. doi: 10.13140/2.1.1018.4643

Portwood, S.G., Lambert, R.G., Abrams, L.P., & Nelson, E.B. (2011). An evaluation of the Adults and Children Together (ACT) against violence parents raising safe kids program. *The journal of primary prevention, 32*(3-4), 147. doi: 10.1007/s10935-011-0249-5

Purcell, R., Baksheev, G. N., & Mullen, P. E. (2014). A descriptive study of juvenile family violence: Data from intervention order applications in a Childrens Court. *International journal of law and psychiatry*, *37*(6), 558-563. doi: 10.1016/j.ijlp.2014.02.029

Puzzanchera, C., Smith, J., & Kang, W. (2015). *Easy Access to NIBRS Victims, 2013: Victims of Violence*. Retrieved November 12, 2016, http://www.ojjdp.gov/ojstatbb/ezanibrsdv

Reid, W.J., Abramson, J.S., Fortune, A.E., & Wasko, N. (1992). *Task strategies: An empirical approach to clinical social work*. Columbia University Press.

Reiss, A. J., & Roth J. A. (Eds.). (1993). Understanding and preventing violence. Washington, DC: National Academy Press.

Routt, G., & Anderson, L. (2011). Adolescent violence towards parents. *Journal of Aggression, Maltreatment & Trauma*, *20*(1), 1-19. doi: 10.1080/10926771.2011.537595

Rubin, A., & Babbie, E. R. (2005). *Research methods for social work*. Belmont, CA: Thomson/Brooks/Cole.

Rybski, N.C. (1998). An evaluation of a family group therapy program for domestically violent adolescents.

Sackett, D. L., Rosenberg, W. M., Gray, J. M., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine. *BMJ: British Medical Journal*, *313*(7050), 71-72.

Santisteban, D.A., Coatsworth, J.D., Perez-Vidal, A., Kurtines, W.M., Schwartz, S.J., LaPerrierre, A., & Szapocznik, J. (2003). Efficacy of brief strategic family therapy in modifying Hispanic adolescent behavior problems and substance abuse. Journal of Family Psychology, 17(1), 121-133. doi: 10.1037/0893-3200.17.1.121

Sawyer, A. M., & Borduin, C. M. (2011). Effects of multisystemic therapy through midlife: a 21.9-year follow-up to a randomized clinical trial with serious and violent juvenile offenders. *Journal of consulting and clinical psychology*, *79*(5), 643-652. doi: 10.1037/a0024862

Schaeffer, C.M., & Borduin, C.M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. Journal of consulting and clinical psychology, 73(3), 445-453. doi: 10.1037/0022-006X.73.3.445

Scherer, D. G., Brondino, M. J., Henggeler, S. W., Melton, G. B., & Hanley, J. H. (1994). Multisystemic family preservation therapy: Preliminary findings from a study of rural and minority serious adolescent offenders. *Journal of Emotional and Behavioral Disorders*, *2*(4), 198-206. doi: 10.1177/106342669400200402

Sexton, T.L., & Alexander, J.F. (2004). Functional family therapy clinical training manual. *Baltimore, MD: Annie E. Casey Foundation.*

Sexton, T., & Turner, C. W. (2011). The Effectiveness of Functional Family Therapy for Youth with Behavioral Problems in a Community Practice Setting. *Journal of Family Psychology : JFP : Journal of the Division of Family Psychology of the*

American Psychological Association (Division 43), *24*(3), 339–348. doi: 10.1037/a0019406

Shirk, S. R., & Karver, M. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of consulting and clinical psychology*, *71*(3), 452-464. doi: 10.1037/0022-006X.71.3.452

Strom, K.J., Warner, T.D., Tichavsky, L., & Zahn, M.A. (2014). Policing juveniles: Domestic violence arrest policies, gender, and police response to child-parent violence. *Crime & delinquency, 60*(3), 427-450. doi: 10.1177/0011128710376293

Szapocznik, J., Hervis, O., & Schwartz, S. (2003). *Therapy Manuals for Drug Addiction: brief strategic family therapy for adolescent drug abuse. Manual 5* (No. 3). US Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse.

Szapocznik, J., & Kurtines, W.M. (1989). *Breakthroughs in family therapy with drub abusing and problem youth*. New York, NY, US: Springer Publishing Co.

Szapocznik, J., Rio, A. T., Hervis, O., Mitrani, V. B., Kurtines, W., & Faraci, A. M. (1991). Assessing change in family functioning as a result of treatment: The Structural Family Systems Rating Scale (SFSR). *Journal of Marital and Family Therapy*, *17*(3), 295-310. . doi: 10.1111/j.1752-0606.1991.tb00897

Tate, D.C., Reppucci, N.D., & Mulvey, E.P. (1995). Violent juvenile delinquents: Treatment effectiveness and implications for future action. *American Psychologist, 50*(9), 777-781. doi: 10.1037/0003-066X.50.9.777

Teater, B. (2017). Social Work Research and Its Relevance to Practice: “The Gap Between Research and Practice Continues to be Wide”. *Journal of Social Service Research*, *43*(5), 547-565.

Tew, J., & Nixon, J. (2010). Parent abuse: Opening up a discussion of a complex instance of family power relations. *Social Policy and Society*, *9*(4), 579-589. doi: 10.1017/S1474746410000291

Wagner, D. V., Borduin, C. M., Sawyer, A. M., & Dopp, A. R. (2014). Long-term prevention of criminality in siblings of serious and violent juvenile offenders: A 25-year follow-up to a randomized clinical trial of multisystemic therapy. *Journal of consulting and clinical psychology*, *82*(3), 492-499. doi: 10.1037/a0035624

Weyers, M., Strydom, H., & Huisamen, A. (2014). Triangulation in social work research: the theory and examples of its practical application. *Social Work/Maatskaplike Werk*, *44*(2), 207-222. doi: 10.15270/44-2-251

White, S.F., Frick, P.J., Lawing, K., & Bauer, D. (2013). Callous-unemotional traits and response to Functional Family Therapy in adolescent offenders. *Behavioral sciences & the law, 31*(2), 271-285. doi: 10.1002/bsl.2041

Wilcox, P. (2012). Is parent abuse a form of domestic violence?. *Social Policy and Society*, *11*(2), 277-288. doi:10.1017/S1474746411000613

Wyers, N. L. (1991). Policy-practice in social work: Models and issues. *Journal of Social Work Education*, *27*(3), 241-250. doi: 10.1080/10437797.1991.10672196

Biographical Information

Scott Sainato began his college and academic career with an Associates of Arts Degree from Collin County Community College, and through the years earning a Bachelor of Social Work (BSW) from the University of North Texas, a Master of Social Work (MSW) from Texas A&M-Commerce University, and finally a Ph.D. from the University of Texas at Arlington. These accomplishments have made possible Scott Sainato to continue to academic career at Washburn University where he will continue his research on Non-Intimate Partner – Youth Family Violence (NIP-YFV) as well as be an educator for future social workers.