



University of Kentucky
UKnowledge

Theses and Dissertations--Social Work

College of Social Work

2014

Obtaining Genuine Family Involvement: Unpacking the System of Care Values and Principles

Deborah A. Cohen

University of Kentucky, dacohen@austin.utexas.edu

[Right click to open a feedback form in a new tab to let us know how this document benefits you.](#)

Recommended Citation

Cohen, Deborah A., "Obtaining Genuine Family Involvement: Unpacking the System of Care Values and Principles" (2014). *Theses and Dissertations--Social Work*. 9.
https://uknowledge.uky.edu/csw_etds/9

This Doctoral Dissertation is brought to you for free and open access by the College of Social Work at UKnowledge. It has been accepted for inclusion in Theses and Dissertations--Social Work by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Deborah A. Cohen, Student

Dr. Carlton Craig, Major Professor

Dr. David Royse, Director of Graduate Studies

OBTAINING GENUINE FAMILY INVOLVEMENT:
UNPACKING THE SYSTEM OF CARE VALUES AND PRINCIPLES

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Social Work
at the University of Kentucky

By
Deborah Ann Cohen

Lexington, Kentucky

Director: Dr. Carlton Craig, Associate Professor of Social Work

Lexington, Kentucky

2014

Copyright © Deborah Ann Cohen 2014

ABSTRACT OF DISSERTATION

OBTAINING GENUINE FAMILY INVOLVEMENT: UNPACKING THE SYSTEM OF CARE VALUES AND PRINCIPLES

Despite the federal government's \$1.5 billion investment between 1993 and 2010 to fund 164 separate community-based systems of care, there has been an extremely limited attempt to measure the impact of system of care. The impetus for this research is the struggle for how the value based concept of system of care is communicated within a community. While child mental health services researchers have published a number of randomized control trials to explore individual level supports for youth served in a system of care community, researchers have struggled to devise a way to measure system of care philosophy diffusion.

While system of care is a system level intervention, this study explored the role of the system of care value: family voice as it pertains to direct practice for children and families. The goal was to assess whether specific direct practices regularly associated with system of care (i.e., wraparound or home-based services) lead to greater family voice or if the mere presence of a high-functioning system of care community leads to equal family voice for all receiving community-based services.

The primary finding was a relationship between the perception of family functioning and perceived empowerment/self-efficacy. This finding suggests that as functioning improves, so does a caregiver's perception of their personal empowerment/self-efficacy. While the framing of this study was to "unpack" the system of care value of family voice, the findings do not support any clear cut explanation for how family voice is promoted or communicated to families. Based on the findings, it appears as if families feel more empowered as their child improves. Additional research needs to be done on the application of family voice within the practice setting to better understand how to best instruct staff to infuse family voice in their daily practice.

KEYWORDS: Child Mental Health, System of Care, Values, Implementation, Family Voice

Deborah Ann Cohen

Date

OBTAINING GENUINE FAMILY INVOLVEMENT:
UNPACKING THE SYSTEM OF CARE VALUES AND PRINCIPLES

By

Deborah Ann Cohen

Carlton Craig, Ph.D., Chair

David Royse, Ph.D., Director of Graduate Studies

Date

DEDICATION

This document is dedicated to my son who patiently cuddled me in his first few weeks of life as I finalized it.

ACKNOWLEDGMENTS

I would like to acknowledge my sincerest gratitude to several people who have supported me through my educational tenure. First, I would like to express my deepest thanks to my dissertation committee: Drs. David Royse, Chris Flaherty, Sarah Wackerbarth, Martin Hall, and especially to my chair Carlton Craig. I am grateful for each of your contributions to the process and willingness to do so much work for very little credit. Secondly, I would like to thank my numerous mentors and colleagues who have helped to build my mental health knowledge base and research expertise: Dr. Devin McAuley, Sue Ann Savas, Dr. Allison Howland, Julia Rupp, Dr. Molly Lopez, and the staff at Community Mental Health Center, Inc., and Wood County Behavioral Connections.

Thirdly, I would like to thank my talented cohort: Christine Fulmer, Shuna Mason Wright, and Lynn Squicciarini, and two beloved professors: Drs. Dale Albers and James Clark. Each of you helped to shaped my educational experience and made the doctoral progression less stressful and lonesome. Lastly, I would like to thank my loving husband for his unconditional support and never ending statistical expertise.

TABLE OF CONTENTS

Acknowledgements	iii
List of Tables	vii
List of Figures	viii
Chapter 1: Introduction	1
Rationale for the study	2
Purpose of the study	8
Theoretical basis for the study	12
Conceptual model of actualized family voice	13
Description of the study	18
Expected results	19
Chapter 2: Literature	21
Background	21
System of Care	21
Empirical Research	26
Family Voice	35
Dosage	39
Value-driven practice	40
Implementing system of care values	44
Summary of the Literature	47
Chapter 3: Methodology	50
Sample Description	50
Power Analysis	52
Procedures	52
Human Subjects Protection	54
Original Data Sources	55
Measures	55
Conceptual and Operational Definitions	58
Hypotheses	61
Data Analysis	62
Summary of Methodology	63
Chapter 4: Results	64
Descriptive Analyses	64
Sample Description	64
Diagnostic Categories	65
Bivariate Analyses	66
Mediator relationships: FTM dosage	66
Caregiver peer support	68
Family Empowerment Scale	68
Child and Adolescent Strengths and Needs Assessment (CANS)	69

Comparison of the FES family sub-scale to the CANS.....	75
Control Variables	75
Summary of Descriptive and Bivariate Findings.....	76
Multivariate Analyses	76
Hypothesis 1	76
Hypothesis 1: Multivariate analysis.....	77
Direct effects.....	77
Indirect effects.	78
Hypothesis 2	79
Hypothesis 2: Multivariate analysis.	80
Direct effects.	81
Indirect effects.	81
Hypothesis 3	82
Hypothesis 3: Multivariate analysis.....	83
Direct effects.	83
Indirect effects.	83
Hypothesis 4	85
Hypothesis 5	86
Direct effects.....	87
Indirect effects.	87
Summary of Findings.....	88
Chapter 5: Discussion	90
Mental Health Program Involvement.....	90
Experience of Wraparound Enrollment	90
Mediator.....	92
Role of Family Team Meeting Dosage.....	92
Moderators	95
Child Welfare Involvement.....	95
Caregiver Peer Support Involvement.....	96
Role of Psychosocial Functioning	97
Findings Summary	99
Practical Implications.....	101
Future Research Directions.....	102
Further Exploration into Care Coordination and Family Team Meeting	102
Concrete Ways to Promote System of Care Values.....	103
Longitudinal and Multi-Level Modeling	103
Study Limitations.....	104
Conditional Process Analysis	104
Agency-based Sample and Sample Size	105
Operationalization Using a Secondary Data Source.....	105
Implications for Social Work Research, Education, Policy and Practice	105
References.....	110
Vita.....	127

LIST OF TABLES

Table 4.1	Child and Youth Characteristics	66
Table 4.2	Exploration of child welfare involved based on FTM dosage.....	68
Table 4.3	Relationships between CANS domains at baseline and 6 months.....	71
Table 4.4	CANS Paired Sample T-test.....	72
Table 4.5	Relative Change Index for CANS scores	74
Table 4.6	Paired t-test: Comparison of Program Enrollment.....	74
Table 4.7	Paired t-test: Comparison of FTM incidence.....	75
Table 4.8	Hypothesis 1: FTM treated as a mediator.....	79
Table 4.9	Hypothesis 2: Effect of FTM dosage and child welfare involved on family empowerment/ self-efficacy.....	82
Table 4.10	Hypothesis 3: Mediator/Moderator relationship of FTM dosage and psychosocial functioning on family empowerment/self- efficacy.....	84
Table 4.11	Effect of psychosocial functioning and FTM dosage on family empowerment/self-efficacy.....	85
Table 4.12	Hypothesis 5: Mediator/Moderator relationship of FTM dosage and caregiver peer support on family empowerment/self-efficacy.....	88

LIST OF FIGURES

Figure 1.1	Conceptual Model	.....	17
Figure 4.1	Hypothesis 1	.....	77
Figure 4.2	Hypothesis 2	.....	80
Figure 4.3	Hypothesis 3	.....	82
Figure 4.5	Hypothesis 5	.....	86

CHAPTER 1: INTRODUCTION

Since the early 1980s there has been continuous movement in child mental health to develop comprehensive community mental health services. Starting with the landmark article by Knitzer (1982), a series of well known reports followed identifying the need for better child mental health services (President's Commission on Mental Health, 1978; President's New Freedom Commission on Mental Health, 2003; Stroul & Friedman, 1986; U.S. Congress, Office of Technical Assistance, 1986; U.S. Department of Health and Human Services, 1999; U.S. Public Health Service, 2000). As a result of these early reports, the first federal program directed at child mental health, Child and Adolescent Services System Program (CASSP), was launched in 1984 (Stroul & Blau, 2008). This federal program was the catalyst for a philosophy now known as “system of care” (Bruns et al., 2005; Stroul & Friedman, 1986).

System of care was originally defined as “a comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the multiple and changing needs of severely emotionally disturbed children and adolescents” (Stroul & Friedman, 1986, p. 3). This definition was revised in 1994 to “children and adolescents with severe emotional disturbance (SED) and their families” (Stroul & Friedman, 1994, p. 3). SED is defined as a population that includes children or adolescents: 1) under 18 years of age; 2) who have emotional problems that are disabling based on social functioning criteria (impairments that affect functioning in home, school, and community settings); 3) have multiple agency needs; 4) have a diagnosable mental health disorder; and 5) have a persistent (at least one year in duration) mental or emotional disorder (Stroul & Friedman, 1986). Some system of care communities have

expanded this definition to go beyond youth who have a SED and instead take a more holistic view of promoting not just intervention, but also prevention and universal services for all children within the community.

Borrowing upon much of the work of the recovery and consumer movement in adult mental health, system of care set out to improve child mental health through employing the strengths-based perspective and devising creative methods to keep children and youth in their communities (Levin, Hennessy, & Petrila, 2010; Rapp & Goscha, 2012; Stroul & Blau, 2008). Much has transpired since the enactment of CASSP and its offspring, the Children's Mental Health Initiative (CMHI). There is now vast support for the ideas CASSP and CMHI promoted, such as services that are collaborative and individualized and focus on strengths instead of deficits (Bruns et al., 2005; Rapp & Goscha, 2012; Stroul & Blau, 2008). Grants such as CMHI promoted the idea of strengths-based programming, meaning programs are goal oriented, hope inducing, and have a systematic focus on the client and family strengths as part of the development and implementation of the treatment planning process (Rapp & Goscha, 2012).

Rationale for the study

Since the term system of care entered the lexicon of child mental health, it has been commonly confused with related child serving programs (such as wraparound) instead of a system transformation (Rosenblatt, 2010). While system of care is actually a system-level construct, many communities have thought of it as only a program-level idea. An example of this was the national evaluation of the CMHI grantees from the mid-1990s to 2010 (ICF Macro, 2011). Although it was a system-level grant that focused on capacity-building with no requirement to provide services, the entire evaluation

protocol was focused on child-level outcomes for those enrolled in a care coordination model such as wraparound (Rosenblatt, 2010). Alternatively, if there had been a shared focus between child-level and system-level data collection there may be less confusion about the true impact of system of care.

Mental health services exist in an environment of scarce funding resources where outcomes are greatly scrutinized. In order to sustain the spread of system of care concepts throughout children's mental health, greater clarity of the system of care approach must be documented. By obtaining greater clarity, the effect of the system of care philosophy on services and community can be clearly measured and evidence for why system of care should be continued can be supported.

Whereas system of care is a system level approach and refers to system-level changes to child services within a community, wraparound is a care-coordination practice that occurs between a provider and the youth and their family. Wraparound practice requires family members, providers, and other key people in the child or family's support system to come together to develop and implement a creative plan to meet the needs of the family. The team determines the most pressing needs and creatively uses the youth and families strengths and interests to achieve success (Walker & Bruns, 2006b).

Wraparound is a process for developing and implementing team-based, collaborative, individualized care plans. The basic idea behind wraparound is that all children and families have strengths. By focusing on the family's strengths rather than deficits, the wraparound facilitator is able to guide the youth and family to achieve their goals. Wraparound is based on the strengths-based approach widely used in psychiatric rehabilitation (Rapp & Goscha, 2012). The key to wraparound is working with children

and families within their communities instead of sending a child to residential treatment. This helps the youth and family learn skills in the context of their daily environment instead of a youth solely learning to cope in a residential setting (Walker, Bruns, & Penn, 2008). The process requires family members, providers, and other key people in the child or family's support system to come together to develop and implement a creative plan to meet the needs of the family. The team is to decide and focus on the most pressing needs and creatively utilize the youth and family's strengths and interests to achieve success. The key to the plan is that the team is delegating and eliminating duplicate services by clearly identifying who is responsible for each goal and objective. The team meets regularly to assess how the plan is working, and continuously works toward client discharge from the program.

Where it appears the confusion occurs is due to the fact wraparound embodies the principles of system of care at a micro and individualized level, while system of care is about transforming systems to be better able to promote coordinated services (Stroul & Blau, 2008). The overall goal of a system of care is to develop a community collaborative that better meets the needs of youth with a focus on keeping youth in the home, out of psychiatric facilities, and on a trajectory toward productive adulthood. Much of this collaboration occurs within community boards and committees, and is separate from the day-to-day of direct practice.

The overlap between system of care and wraparound occurs when the community board or committees, who are tasked with improving services for youth, decides to implement a specific program to directly serve youth in families. In many system of care communities, wraparound has been widely utilized because of its philosophical alignment

with the values of the system of care. However, within a community that is truly retooling their entire approach to children services, the implementation of wraparound is only one piece of the puzzle, or one option available within a community. If a community has truly embraced the values of system of care, the same concepts are promoted in all of the programs offered, not just wraparound.

The confusion between the two terms and approaches is due largely to the philosophical similarities. Just as system of care promotes individualized, strengths-based approaches, so does wraparound (Bruns et al, 2005; Bruns & Suter, 2010; Hodges, Ferreira, Israel, & Mazza, 2010; Stroul, Blau, & Friedman, 2010). Although there are surface level similarities between wraparound and system of care that have led to confusion, much of the overall confusion has actually occurred in the implementation processes of both. This is because there is an inherent struggle related to promoting individualization (at the youth or community level), while still providing standardized guidance to specific communities or agencies. To deal with this difficulty, wraparound and system of care have taken two very different approaches. Wraparound has focused on clarifying fidelity to the model, while system of care has made little change to better articulate how to implement the philosophy in a community (Bruns et al., 2005; Bruns & Walker, 2010; Stein, Test, & Marx, 1975; Stroul & Blau, 2008).

This struggle for clarity is the impetus for this research study. As stated above, while wraparound and system of care are not synonymous, they grew out of the same effort to better meet the needs of children and families with mental health needs (Bruns & Suter, 2010; Burchard, Burchard, Sewell, & VanDenBerg, 1993; Stroul & Blau, 2008; Stroul & Friedman, 1986; Walker et al., 2008). While this study will focus on services

within a system of care that goes beyond wraparound, the development trajectory of wraparound provides an important framework to compare system of care. As is identified moving forward, much of the focus in this section will be on how wraparound has worked to build greater clarity, while there is still great uncertainty about what is a system of care.

While the popularity of the wraparound process grew by the mid-nineties, concern developed about the need to better define the process to ensure fidelity. As Clark and Clarke (1996) noted:

The push to rapidly implement wraparound approaches has resulted in a plethora of service models that vary widely in their implementation, processes, structures, and theories. While this push has been an important part of...the shift to less restrictive, more integrated community-based service alternatives, it has also resulted in unsystematic application of the wraparound process. (p. 2)

Critiques like the above prompted a push to develop the wraparound principles and a fidelity scale (Walker & Schutte, 2005; Bruns et al., 2005; Bruns & Walker, 2010). At the turn of the millennium there were many wraparound teams throughout the United States and great diversity was found in the treatment teams' abilities to developed individualized plans, monitor outcomes, integrate informal supports, and be driven by the families' strengths (Walker & Schutte, 2004; Bruns, Burchard, Suter, Leverentz-Brady, & Force, 2004). Additionally, recent research has shown that some of the earlier wraparound studies that had inconsistent outcomes were not studying the same thing across studies, and only research over the past ten years should be considered reliable (Bickman, 1996; Bruns & Suter, 2010; Walker & Bruns, 2006a; Walker & Bruns,

2006b). At that point in time, the development and implementation of four things occurred: definition of wraparound principles, identifying essential activities, developing a theory of change, and creation of a fidelity instrument (Walker et al., 2008).

This is where there is a specific difference in the operationalization between wraparound and system of care. While system of care defined their own values and principles, it was not followed up with an identification of essential activities, theory of change or fidelity instrument. While one may argue it is harder to develop a fidelity measure for a system-level intervention than an individual or family intervention, there are examples of fidelity measures of recovery-oriented or trauma-informed agencies that have been recently developed (Guarino, Soares, Konnath, Clervil, & Bassuk, 2009).

Whereas values promote an ever-evolving perspective, what is currently needed is an explicit definition for how the system of care principles can be achieved in practice (Bruns & Walker, 2010; Bryan, 2006). Even though system of care is more holistically focused and client centered, most of the focus has been on children enrolled in wraparound within a system of care. However, it is unclear in the literature if youth and families who are not enrolled in wraparound have similar experiences within a system of care community (Stroul & Blau, 2008). In 2010, system of care leaders came together to produce a special edition of the journal *Evaluation and Program Planning* specifically to discuss whether or not system of care needed to be better defined. The difficulty with the current focus on evidence-based and research-informed approaches to treatment is how to have individualized and flexible approaches without manualizing all methods (Bruns et al., 2005; Bruns & Walker, 2010; Stein et al., 1975; Stroul & Blau, 2008;). Bruns and Walker (2010) have cautioned that there are potential pitfalls in better articulating a

model by outlining procedures, regulations, and developing accountability. There is a fear that if the pendulum swings too far away from the local control of the clinician it will become too difficult for programs to provide individualized services (Bruns & Walker, 2010). However, without a full understanding of the empirical basis for why one should approach a problem, there is a reduced chance the intended outcomes will be achieved (Bruns & Walker, 2010).

Purpose of the study

The purpose of this study was to explore the role of system of care values as it pertains to direct practice for children and families. The goal was to assess whether specific direct practices regularly associated with system of care (i.e., wraparound or home-based services) led to greater family voice or if the mere presence of a high-functioning system of care community led to equal family voice for all receiving community-based services. One focus of the study was on a hallmark of wraparound which is known as the family team meeting (FTM). It is a process that brings together all stakeholders in the youth's treatment to collaborate to meet the goals of the treatment plan (Anderson, Wright, Kooreman, Mohr, & Russell, 2003; ; Bruns, Rast, Walker, Bosworth, & Peterson, 2006; Clark & Clarke, 1996; Cornett, 2011; Walker & Schutte, 2005). Additionally, it will assess if the presence of family voice correlates with greater psychological functioning among families.

What makes this system of care community where the study sample is drawn different from others, is that it has encouraged the use of FTM for some youth not enrolled in wraparound to better coordinate services and mitigate crisis. This is because after years of observing the positive effects of a high fidelity wraparound program, it was

decided at a system of care governance board to promote the use of FTM outside of wraparound enrollment on an as-needed basis. For instance if a new need arises (e.g. parents announce a divorce), the use of a FTM can be employed to bring all providers together even if the child does not fully qualify for wraparound services within the state's community mental health structure. For this reason within this sample, the use of a FTM is not synonymous with wraparound enrollment.

While at the community level, the wider use of FTM was initially deployed to better coordinate services and mitigate crisis (an idea based on the system of care values). It was hypothesized that because FTM has been utilized to better articulate the underlying values of wraparound, it may also be working as a disseminator for a specific shared value between wraparound and system of care: family voice. Just as many concepts discussed in this paper, the idea of family voice is another ambiguous notion. Based on system of care values, services and systems within the community are to promote family voice, meaning to encourage autonomy and empowerment of families through participation in the system. The promotion of family voice has rapidly spread since the 1980s as part of the introduction of system of care values (Friesen, Koroloff, Walker, & Briggs, 2011). The inclusion of family voice has been a combination of the result of advocacy groups, financial incentives (as in grants such as CMHI), and legislative mandates. Despite the fact that family voice has progressed from an adversarial role to a partnership role, communities continue to struggle to implement genuine family involvement at the individual- and system-levels (Bruns & Walker, 2010; Friesen et al., 2011; Hoagwood, 2005; Kutash, Greenbaum, Wang, Boothroyd, & Friedman, 2011; Stroul & Blau, 2008). As outlined later in this paper, it was hypothesized that unlike other

ideas that are promoted by the system of care, the actual practice of the FTM may be key to providing practitioners a structure to encourage the family to speak up about their individual perspectives. This hypothesis is based on the idea that the FTM provides an actual concrete structure that promotes empowerment by providing the family a formal process to articulate their strengths and needs to all of their providers.

This study seeks to deal with two specific gaps in the field: the promotion of family voice and the transmission of system of care values. While child mental health services researchers have published a number of randomized control trials to explore individual level supports for youth, researchers have struggled to devise a way to measure system of care philosophy diffusion (Boothroyd, Greenbaum, Wang, Kutash, & Friedman, 2011; Bruns & Walker, 2010). Despite the federal government's \$1.5 billion investment between 1993 and 2010 to fund 164 separate community-based system of care, there has been an extremely limited attempt to measure the impact at the system level (Boothroyd et al.,2011).

The most recent attempt to measure system of care implementation was by Boothroyd et al. (2011). While it is a start, their article outlining the development shows there is still confusion about how to define system of care.

The system of care construct is dynamic and has continued to evolve over the years. Stroul and Friedman initially described system of care as a comprehensive spectrum of mental health and other necessary services organized into a coordinated network to meet the multiple and changing needs of children and their families. Stroul clarified the concept by emphasizing that first and foremost, system of care are a range of treatment services and supports guided by a

philosophy and supported by an infrastructure. Friedman and Hernandez noted that developing system of care is neither a specific nor a simple intervention, and that it could be seen as a general statement of policy indicating a desire to establish a complex system targeted at a specific population of children and families based on a widely agreed upon set of principles and values. Hernandez and Hodges added that system of care are better considered a cluster of organizational change strategies that are based on a set of values and principles intended to shape policies, regulations, funding mechanisms, services, and supports. (Boothroyd et al., 2011, p. 289)

These varying classifications and explanations highlight the intricacy of the construct, as well as an emergent understanding related to the meaning of system of care.

Although there is confusion in what a system of care categorically is, there is consistent support for the value of family voice within system of care and related child level service provisions. Since much of past measurement of family voice has focused on only wraparound process, it was important to see if enrollment in wraparound is the key to greater family voice, or if the value of family voice has been dispersed throughout different service provisions within a system of care. If it was found that all families no matter if enrolled in wraparound or who are just receiving services within a system of care community equally experience family voice, there is support that a system level intervention can diffuse the idea of family voice just as well as wraparound services. Furthermore because the FTM was utilized for families outside of wraparound enrollment, it was important to isolate FTM dosage to see if it was the specific mediator that actually led to increased family voice.

Theoretical basis for the study

There are a variety of theoretical models and perspectives that inform the use of family voice in mental health services. Among these are ecological family systems theory (Stroul, 1988), diffusion of innovations theory, empowerment theory, and the strengths perspective (Gutierrez, Parsons & Cox, 1998; Koren, DeChillo & Friesen, 1992; Rapp & Goscha, 2006; Rogers, 2003). Empowerment theory and the strengths perspective are essential to the model to ensure full partnership of the family in the treatment planning process. If the value of family voice is experienced equally across families served, there is support that the system of care ideas have been dispersed throughout the community-based youth services within the focus agency.

At the core of this new approach to children's mental health is the work by Stroul and Friedman (1988) and the President's New Freedom Commission (2003) which emphasizes that every child with a serious emotional disturbance will have a comprehensive, individualized plan of care. Such plans are to be developed by youth, families, and providers working in full partnership to select treatment goals and strategies, and to monitor progress. This vision of transformation stands in contrast to the existing reality in children's mental health, in which youth typically have little meaningful input in the process of creating treatment plans.

Empowerment is especially important with respect to the implementation of legitimate family voice because a practitioner must first be willing to be a partner in the process instead of the expert. Empowerment theories speak to the idea that when working with a client and their family one must consider how micro and macro levels of social structures are contributing to the situation. The practitioner is there to assist the

family as a facilitator rather than to assume a position of power (Gutierrez et al., 1998). The goal is to encourage the youth and family to define their own goals and aspirations instead of having treatment goals provided to them. In the process, they discover their own inner strengths and abilities; thus, becoming more empowered.

Parallel to changes in the children's system, the adult system has made strides in shared decision making with their consumers. Studies have found that moving the consumer from the role of passive participant to active participant is associated with improvement in quality of life, functioning, and satisfaction with services (Woltmann et al., 2011). Unlike in adult services where there is discussion of individual consumer-driven care, system of care emphasizes the idea of the family voice where both caregivers and youth have influence, choice, and authority in all aspects of the planning process (Bruns et al., 2005; Stroul & Blau, 2008).

Clearly, the process of becoming empowered is a multifaceted one, and little is known about it. The idea of empowerment feeds into the strengths perspective of social work practice. The crux of the approach is to move away from blame and concentration of deficits, to building upon positive elements in the youth's life perspective (Rapp & Goscha, 2006). The strengths perspective follows six hallmarks: goal orientation, systematic assessment of strengths, environment rich in resources, explicit methods for utilizing client or environmental strengths, hope-inducing approach, and client and family are perceived as experts of their own lives and urged to generate ideas for possible solutions (Rapp & Goscha, 2012).

Conceptual model of actualized family voice

In the conceptual model below it shows how the theoretical underpinnings inform the model (see Figure 1.1). The child and family enter the mental health system informed by their family system and overall environment (Stroul, 1988). The reality of their family and community system is matched to the influences of the use of empowerment and the strengths perspective (Gutierrez et al.1998; Koren et al., 1992; Rapp & Goscha, 2012). Past research has shown that family voice leads to greater obtainment of improved child and family functioning, increased caregiver and youth satisfaction, increased treatment engagement, and increased caregiver self-efficacy and empowerment (Reich, Bickman & Heflinger, 2004; Mayberry, & Heflinger 2013; Hoagwood, 2005).

Whereas the initial interest of the conceptual model focused on services the youth and family received within the system of care, it was hypothesized that it was not actually the programs that would make a difference in the experience of family voice but instead family voice would be impacted if the family received at least one FTM.

Aforementioned, what makes this system of care community different from others is that it encouraged the use of FTM for some youth outside of the wraparound to better coordinate services and mitigate crisis. For this reason within this sample, the use of a FTM is not synonymous with wraparound enrollment. Instead it provides an opportunity to look at a specific feature used in varying doses, to explore if that specific intervention serves as a mediator.

Following Fixsen, Naoom, Blase, Friedman, & Wallace's (2005) conceptual view of implementation, system of care was considered the "source," the example of a best practice implementation attempt. Then moving to the "communication link" that was also considered the mediator in the model is the use of FTM to communicate the idea of

genuine youth and family voice in treatment decision making. Rogers's diffusion of innovations theory focuses on the communication channel being key to the spread of information. Using his theory, the important step is to communicate between the provider and the youth and family. The general concept is that if the provider clearly passes on the idea of family voice in a consistent and clear way to the family, the caregiver will more likely adopt the idea. The challenge to adopting family voice was not just for the provider to adopt and implement the idea in their daily practice but to pass on the idea to the youth and family.

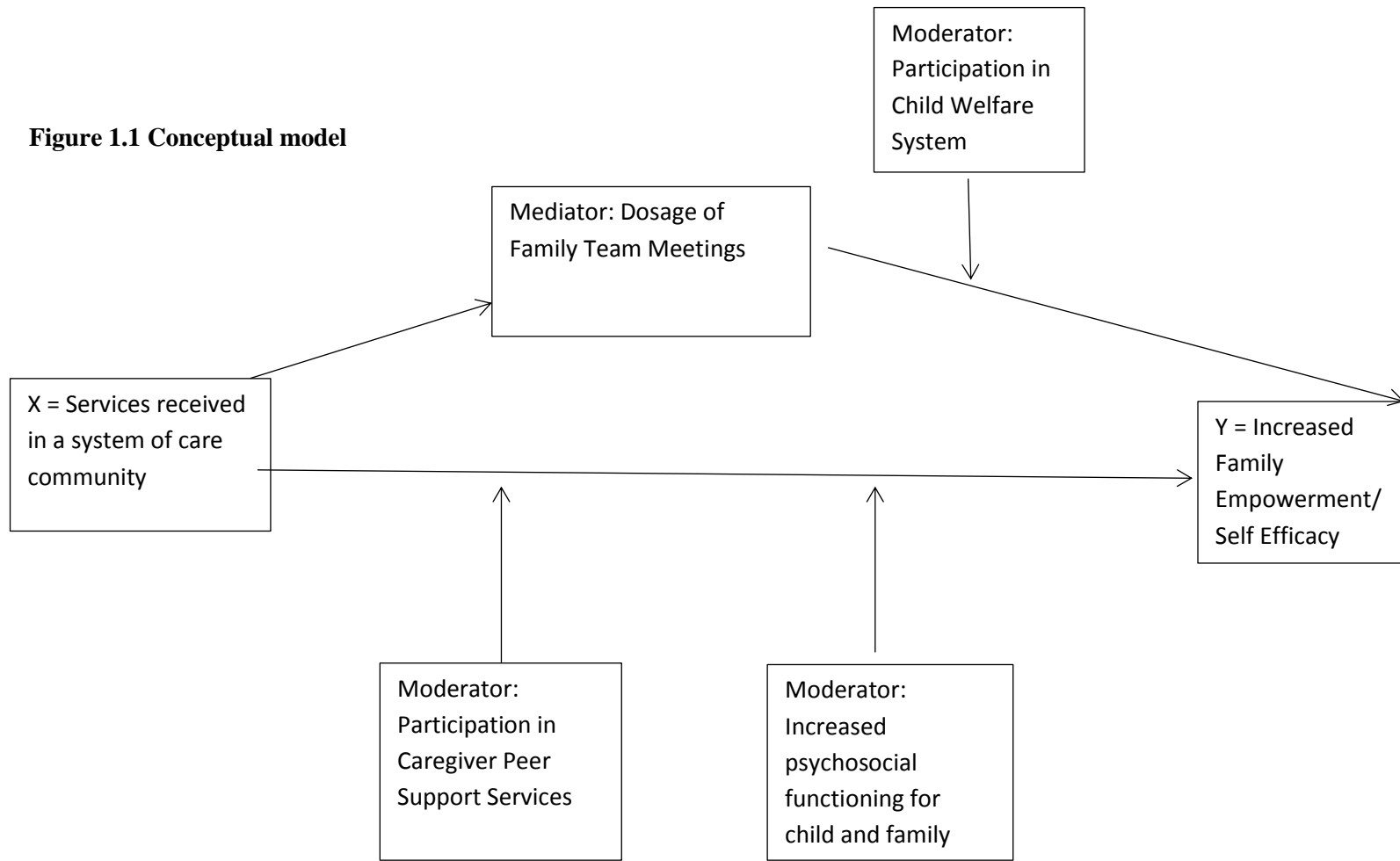
Many families have been involved in mental health or other social service agencies for many years, leading to distrust and many negative memories. This was why it was key for the provider to accept the idea as the new way to practice and the family to move into their new role in the process (Walker & Bruns, 2006b; Stroul & Blau, 2008; Rogers, 2003). It was hypothesized that the FTM would work as a mediator to the idea of family voice by better communicating it to families, which in turn will lead to higher scores of self-efficacy and empowerment. Self-efficacy in the context of this study is defined as a person's perception that he or she is able to take an active role in their treatment to produce positive mental health care outcomes (Walker, Throne, Powers, & Gaonkar, 2010). Empowerment was defined as the family moving from a passive role in treatment planning to instead becoming engaged in obtaining power, which can enable action towards change (Gutierrez, 1990).

In addition to the idea of FTM working as a mediator in the model, there were also three moderators (i.e., participation in child welfare system, participation in caregiver peer support services, increased psychosocial functioning for child and family)

that were hypothesized to lead to modulation of the relationship. Participation in caregiver peer support services or increased psychosocial functioning as reported by the caregiver (on the Family Empowerment Scale) and clinician (on the Child and Adolescent Needs and Strengths assessment) would lead to increased family empowerment/self-efficacy. Past studies have shown that existence of peer support has been correlated with a reduction in parenting stress and strain (Heflinger, Bickman, Northrup, & Sonnichsen, 1997; Hoagwood et al., 2010; Osher & Osher, 2002; Stroul & Blau, 2008). Additionally, past research has shown a positive relationship between psychosocial functioning and empowerment/self-efficacy (Graves, 2005; Graves & Shelton, 2007; Resendez, Quist, & Matshazi, 2000).

It was also predicted that participation in the child welfare system will act as a moderator to reduce the effect of FTM on family empowerment/self-efficacy. Central to empowerment is distribution of power and the acknowledgement that those with less power, often the disadvantaged, must be part of strategies to gain more. While French and Raven (1959) speak of five different types of power, the most relevant to child welfare is coercive power. Coercive power withholds rewards and uses punishment for gaining obedience. An example of this could be when a family is threatened with legal interventions if they do not agree to drug testing. It could also occur if a family feels pressured to have a FTM despite their lack of interest. Oftentimes in child welfare, the balance of power is tilted toward the agency and its workers. Power is inherent in the role of a caseworker and in the social service agency at large, and can be either overt or subversive.

Figure 1.1 Conceptual model



Description of the study

This study used administrative agency data and secondary data from pre-existing studies. Purposive sampling was used to identify children and youth for inclusion in the study. To see if there is something different to the experience of family voice for families served within a system of care community, there were two principle aims of this research. The first aim was to see if more regular participation in family team meetings had an effect on the self-efficacy of caregivers and youth with SED. The second aim was to examine the differences in outcomes for children and their caregivers between youth served by wraparound and those who were served within a different program within a system of care community. In pursuit of these aims, the following research questions are addressed:

1. Are there specific differences between the outcomes of youth who were provided FTM and those who were not?
 - a. Does the participation in FTM lead to higher scores of self-efficacy and empowerment?
 - b. Does involvement in the child welfare system lead to a reduced effect of FTM on the family's voice?
 - c. Does involvement in caregiver peer support services lead to an increased effect of the FTM on family voice?
2. Were there differences in outcomes for children and their caregivers between youth served by wraparound and those who were served within a home-based program within a system of care community?

- a. Is there a relationship between the youth's psychosocial functioning and the caregiver's perception of their voice in treatment planning?
- b. Is there a relationship between higher reported self-efficacy and empowerment and improved relative change on the CANS assessment?

To answer the research questions above, existing literature was examined to explore how to measure the adoption of values. This included a review of similar projects in adult mental health and other studies that focused on value-based approaches. A theoretical framework was followed utilizing empowerment theory, the strengths perspective, and person centered planning. This study proposed to explore how the system of care philosophy was dispersed through community. This study specifically targeted the value of family voice to see if participation in family team meetings was the explanation for increased self-efficacy and empowerment. It was assumed that if an agency or community worked to implement system of care, it has already supported explicit principles that include family voice (Stroul, Blau, & Friedman, 2010). However, there are many moving parts within an agency and viewpoints may only be passed on to children and families who participate in a concrete activity that promotes family voice.

Expected results

Based on FTM's better communication of the value of family voice, it was predicted that caregivers who obtained more FTMs would report greater family empowerment/self-efficacy. However, if the family was involved in the child welfare system that effect was reduced. Additionally it was predicted that, no matter if the child received a FTM or not, there was greater family empowerment/self-efficacy reported for

families who have increased psychosocial functioning over the past six months or participated in caregiver peer support services.

CHAPTER 2: LITERATURE REVIEW

Background

System of Care

The system of care concept was introduced in 1986 by the Stroul and Friedman publication: *A System of Care for Severely Emotionally Disturbed Children and Youth*. During the time of publication, services for children and youth with mental health needs were just starting to attract a greater focus. As identified in the introduction, this was not the first publication highlighting the mental health needs of children, but it is associated with the Children and Adolescent Service System Program (CASSP) that provided funding to create better services for children and youth starting in 1983. As a result of CASSP, a list of principles for serving youth were identified and the Stroul and Friedman publication was the first to incorporate those ideas into a larger framework for children's mental health.

The purpose of the original 1986 work by Stroul and Friedman was to provide a guide for communities to develop integrated care for children and youth with a SED. Stroul and Friedman identified two core values; that services should be child-centered and community-based. Those original core values were expanded to include family-driven, youth-guided, and cultural and linguistic competence (Stroul & Blau, 2008). While some system of care have expanded their populations to include all children in the community, this study will focus on the original definition of system of care that sought to serve children with a diagnosable mental health disorder and multiple agency needs (e.g., school, child welfare, juvenile justice) (Stroul & Blau, 2008; Stroul & Friedman, 1986).

Stroul and Friedman (1986) defined a system of care as “a comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the multiple and changing needs of severely emotionally disturbed children and adolescents” (p. 3). Over time, the definition has changed to include person-first language and to highlight lessons learned by researchers and practitioners (Friesen et al., 2011; Hodges et al., 2010; Kutash et al., 2011; Stroul & Blau, 2008). As the definition evolved, it has emphasized not only a range of services for the child and family but a guiding philosophy (Stroul & Blau, 2008). System of care has been noted as not a specific or simple intervention but a desire to develop a complex system guided by a set of principles and values (Hernandez & Hodges, 2003). The varying definitions emphasize the complexity of the construct as well as the difficulty in communicating the idea of system of care to promote organizational change. Additionally, others have argued it lacks a theoretical orientation that clearly defines and describes the concept to communities (Hodges et al., 2010).

System of care is guided by a set of core values stating that services should be community-based, child-centered and family focused, and culturally competent. Additionally, a set of guiding principles specify that services should be comprehensive, individualized for each child and family, provided in the least restrictive setting, coordinated at the services and system levels, and involve the youth and family as full partners (Stroul & Blau, 2008). The system of care core values and principles include:

Core Values

1. Family driven and youth guided, with the strengths and needs of the child and family determining the types and mix of services and supports provided.

2. Community based, with the locus of services as well as system management resting within a supportive, adaptive infrastructure of structures, processes, and relationships at the community level.
3. Culturally and linguistically competent, with agencies, programs, and services that reflect the cultural, racial, ethnic, and linguistic differences of the populations they serve to facilitate access to and utilization of appropriate services and supports and to eliminate disparities in care. (Stroul, Blau, & Friedman, 2010, p. 6).

Guiding Principles

1. Ensure availability and access to a broad, flexible array of effective, community-based services and supports for children and their families that address their emotional, social, educational, and physical needs, including traditional and nontraditional services as well as natural and informal supports.
2. Provide individualized services in accordance with the unique potentials and needs of each child and family, guided by a strengths-based, wraparound service planning process and an individualized service plan developed in true partnership with the child and family.
3. Ensure that services and supports include evidence-informed and promising practices, as well as interventions supported by practice-based evidence, to ensure the effectiveness of services and improve outcomes for children and their families.

4. Deliver services and supports within the least restrictive, most normative environments that are clinically appropriate.
5. Ensure that families, other caregivers, and youth are full partners in all aspects of the planning and delivery of their own services and in the policies and procedures that govern care for all children and youth in their community, state, territory, tribe, and nation.
6. Ensure that services are integrated at the system level, with linkages between child-serving agencies and programs across administrative and funding boundaries and mechanisms for system-level management, coordination, and integrated care management.
7. Provide care management or similar mechanisms at the practice level to ensure that multiple services are delivered in a coordinated and therapeutic manner and that children and their families can move through the system of services in accordance with their changing needs.
8. Provide developmentally appropriate mental health services and supports that promote optimal social-emotional outcomes for young children and their families in their homes and community settings.
9. Provide developmentally appropriate services and supports to facilitate the transition of youth to adulthood and to the adult service system as needed.
10. Incorporate or link with mental health promotion, prevention, and early identification and intervention in order to improve long-term outcomes, including mechanisms to identify problems at an earlier stage and mental

health promotion and prevention activities directed at all children and adolescents.

11. Incorporate continuous accountability and quality improvement mechanisms to track, monitor, and manage the achievement of system of care goals; fidelity to the system of care philosophy; and quality, effectiveness, and outcomes at the system level, practice level, and child and family level.
12. Protect the rights of children and families and promote effective advocacy efforts.
13. Provide services and supports without regard to race, religion, national origin, gender, gender expression, sexual orientation, physical disability, socio-economic status, geography, language, immigration status, or other characteristics, and ensure that services are sensitive and responsive to these differences. (Stroul, Blau, & Friedman, 2010, p. 6).

System of care is based on the ecological perspective that recognizes that children and families can have needs in multiple domains. In order to assist them in meeting their needs no domain can be addressed in isolation (Stroul & Blau, 2008). Since the initiation of system of care, the term “system of care” has become widely used in other systems beyond mental health such as child welfare, juvenile justice, and education (Hodges et al., 2010). On the surface this is an accomplishment because the origin of the system of care concept was to better coordinate care across child serving systems, but the lexical confusion occurs when a singular system uses the term system of care to refer to an array of services within one domain, instead of referring to coordination across domains. This language has been found in federal grants directed at the substance use services and No

Child Left Behind Act of 2001 (NCLB, 2002). While language is always evolving, the casual diffusion of a word or phrases within an agency, state, or nationally may lead to more confusion by front line staff and the individuals they serve.

While the intended dissemination of system of care was to be voluntary, there is a history of mandated efforts as a result of consent decrees, legislation, and political influence (Behar, 2004; Bruns, Rast et al., 2006; Stroul & Blau, 2008). Litigation related to the provision of comprehensive, community-based mental health services for youth with SED diagnosis has led to mixed results (Behar, 2004). *Willie M. v. Hunt* (1979) is recognized as one of the first successful lawsuits related to the denial of educational services and appropriate mental health treatment for youth within institutional settings. This resulted in the development of a full continuum of services within North Carolina. Another notable lawsuit is Hawaii's *Felix v. Cayetano* (1993) which was directed at the coordination of educational services for children who had mental health needs (Chorpita & Donkervoet, 2005). In all instances the precursor for the lawsuit was the focus on the states' inability to provide services in the least restrictive setting (i.e., community-based services) and lead to the adoption of system of care values and wraparound programming in each state. While lawsuits like *Willie M.* and *Felix* have led to better access to services for many children, it has been somewhat unclear if the presence of a consent decree lead to better outcomes, or just higher costs (Bickman, 1996; Chorpita & Donkervoet, 2005).

Empirical Research

While there have been over a billion dollars allocated to the development of system of care throughout the United States, there has been little research on the implementation of system of care values and principles (ICF Macro, 2011; Kutash et al.,

2011; Paulson, Fixson, & Friedman, 2004). The majority of research has been directed at wraparound, leaving uncertainty about the actual implementation of the system of care philosophy. Paulson, Fixson, and Friedman (2004) explored the implementation of the system of care principles in 14 CMHI grant sites and found that great progress was made in implementing service delivery processes such as wraparound, but that these processes did not produce changes at the system level. This has led to great confusion because you can have wraparound and system of care independent of one another. There are a variety of states who promote the adoption of wraparound programs within community mental health services without a requirement for a formal system of care structure at the community level. Yet most communities who have worked to implement a system of care have selected to use wraparound as a way to serve the children in their community in need of the greatest number of services (Stroul & Blau, 2008). It can be assumed that in communities where wraparound is only used without a formal system of care, service coordination may be stifled by systematic barriers since no one is looking at the bigger picture beyond a single family system.

Originally, the system of care philosophy was only directed at including parents and other caregivers in the treatment planning process. Over time, that has expanded to include parents and caregivers at all levels of system and program development (Stroul & Blau, 2008). The idea to include the direct consumer in treatment decision making is not a new idea. It is a core feature of the recovery movement in the adult mental health sphere. Central to the idea is one must have active participation in their treatment and a focus on self-determination (Onken, Craig, Ridgeway, Ralph, & Cook, 2007). While there are philosophical reasons to support involvement of those who are the focus of the

treatment (child and family), there is also support that the process leads to better outcomes (Walker, Throne et al., 2010).

Wraparound

The development of wraparound actually started in the 1960s when there were very few services for children and they were ineffective and overly-restrictive (Joint Commission on the Mental Health of Children, 1969; Knitzer, 1982; President's Commission on Mental Health, 1978; Walker et al., 2008;). First, there was the Kaleidoscope program in Chicago that demonstrated success by doing whatever was necessary to keep a child or youth in their home. Around the same time, the Alaska Youth Initiative moved all of the youth who were housed out-of-state back to Alaska and implemented a similar philosophy to Kaleidoscope (Burchard et al., 1993; Dennis & Lourie, 2006). The “whatever it takes” idea was transformed into what was later coined “wraparound” an effort to provide individualized, community-based services to children who would otherwise be in an out-of-home placement. Wraparound is based on social learning and social ecology, and the wraparound principles grew out of the results of studies on family engagement (Walker et al., 2008). Wraparound is a team-based, collaborative process that includes providers across disciplines to develop and implement an individualized care plan (Bruns & Walker, 2010; Stroul & Blau, 2008).

While wraparound has become the most popular strategy for fulfilling the system of care philosophy at the individual child and family level since the time of the Stroul and Friedman (1986) monograph, there has been great discussion about the efficacy of wraparound. One of the most well-known early studies of wraparound occurred at a system of care implemented in Fort Bragg, North Carolina. Bickman, Guthrie, Foster,

and Lambert's (1995) report concluded that children serviced in the demonstration program had no better outcomes than traditional services and overall the cost was higher. This initial large scale study led to a firestorm of disagreement among a variety of children's mental health researchers about the efficacy of wraparound, system of care and the Fort Bragg study. Proponents of system of care and wraparound like Robert Friedman published questions about implementation, generalizability, and if the problem was measuring large system improvement at the child level (Burchard, 1996; Friedman, 1996; Kingdon & Ichinose, 1996; Weisz, Han, & Valeri, 1996). Bickman and colleagues responded to the questions and stood by their original evaluation (Bickman, Lambert, Summerfelt, & Heflinger, 1996).

While there are still some that question the wraparound approach, more than half of all states have implemented state-wide initiatives to implement wraparound and wraparound was widely used in the Medicaid demonstration as an alternative to psychiatric residential treatment facilities in 10 states (Bruns & Suter, 2010; Urdapilleta, 2012). At the time of Stroul and Blau's 2008 book there were about 800 programs nationwide and that number has continued to rise, notably with the addition of Texas adopting wraparound in the past two years. Additionally, the National Wraparound Initiative (NWI) and the University of Maryland's Institute for Innovation and Implementation have specific staff devoted to the implementation of wraparound to states throughout the United States.

Wraparound is considered a promising practice, but it may be more accurate to describe it as an evidence-supported process (Suter & Bruns, 2008). As of 2008, there were nine (experimental and quasi-experimental) studies of wraparound published in peer

reviewed journals (Suter & Bruns, 2008). Five of the studies are considered quasi-experimental and were published between 1996 and 2006 (Bickman, Smith, Lambert, & Andrade, 2003; Bruns, Rast et al., 2006; Hyde, Burchard, & Woodworth, 1996; Pullman et al., 2006; Resendez, 2002).

Whereas all of the studies state they were evaluating wraparound there are some concerns about some of the studies' wraparound model fidelity leading to uncertainty about study outcomes (Suter & Bruns, 2008). The earliest study by Hyde et al. (1996) compared the four different groups of youth (wraparound, wraparound after residential, traditional services, and traditional services followed by wraparound, N=107). Community adjustment ratings were higher for the wraparound groups, but due to the high levels of attrition in the other groups it is unclear if the results can be trusted. Bickman et al. (2003) found that there were no great differences between groups (wraparound, N=71, treatment as usual, N=40), there was higher utilization of wraparound services, and the demonstration cost had higher costs due to longer time in care. Resendez (2002) assessed outcomes on the CAFAS for 284 youth who received flexible funds (funds to purchase services that typically cannot be accessed in any other way) compared to 201 youth who did not. Significant functioning improvements were found for both groups, but no group differences were found. Pullman et al. (2006) conducted a two year longitudinal study of youth involved in the juvenile justice system. The authors found that the 110 youth who received high fidelity wraparound were three times more likely not to commit a felony during the follow-up period than the 98 youth who received traditional mental health services. Additionally, 28% less of the youth in the wraparound group served anytime in detention. Lastly, Bruns, Rast et al. (2006)

found that just like Pullman et al., when high fidelity wraparound was administered findings supported wraparound. Group differences supporting wraparound (N=33) over traditional services (N=33) were found for scores on the CAFAS, reduction in absences, school disciplinary actions, and grades.

Four experimental studies have been conducted to assess wraparound (Carney & Buttel, 2003; Clark & Clarke, 1996; Evans, Armstrong, & Kuppinger, 1996; Rast, Vetter, & Poplin, 2008). The most cited article is by Clark and Clarke (1996) which studied the use of wraparound for children who had child welfare involvement. Overall, the greatest improvements for those in wraparound (N=54) compared to treatment as usual (N=78) were for males and those who exhibited problem externalizing behaviors. Additionally, youth who received wraparound demonstrated statistically significant fewer placements, fewer days of runaway status, fewer days incarcerated, and older youth were more likely to be in a permanency plan at follow-up. Next, Evans et al. (1996) assigned youth to either family centered intensive case management (largely followed the wraparound model) (N=27) or treatment foster case (n=15). No treatment effects were found, but due to the very small sample the study has very low power. The third study, Carney and Buttel (2003), explored if wraparound led to reduced recidivism for youth enrolled in wraparound (N=73) compared to conventional treatment (N=68). Overall, they found mixed results; youth enrolled in wraparound had better school outcomes and were less likely to runaway or be combative, while youth who did not receive wraparound were more likely to get a job. No differences were found between groups in relation to recidivism. The most recent experimental study occurred in Oklahoma (Rast et al., 2008). While the complete manuscript is currently under review, conference proceedings

of preliminary results by Rast et al. (2008) showed that children enrolled in wraparound (child welfare initiated wraparound, N=36, mental health initiative wraparound, N=36, treatment as usual, N=36) were significantly more likely to have less school or residential disruptions, more days in a permanency setting, and greater improvements in psychosocial functioning.

While mixed results have been found historically, researchers in the wraparound community continue to build support for the process and there is hope it was listed with the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP). The leading researchers in wraparound located at the National Wraparound Initiative (NWI) believe the only way to establish that wraparound is actually evidence-based is to increase the use of fidelity measures to ensure all future studies are actually studying wraparound (Bruns & Suter, 2010). In a meta-analysis of nine of the studies, Suter and Bruns (2009) found significant effects across four domains: living situation, youth behavior, youth functioning, and youth community adjustment. Mean effect sizes ranged from .25 to .59 (Cohen's *d*), with the largest effects found for living situation outcomes (e.g., youth residing in less restrictive, community placements and/or greater stability of placement). The mean effect size across all outcomes was .33 - .40. What makes wraparound different from other evidenced-supported treatments (EST) or evidence-based practices (EBP) like Multi-systemic Therapy or Functional Family Therapy is that wraparound is based on a set of ten values/principles.

Ten principles of the wraparound process

1. Family voice and choice. Family and youth/child perspectives are intentionally elicited and prioritized during all phases of the wraparound process. Planning is grounded in family members' perspective, and the team strives to provide options and choices such that the plan reflects family values and preferences.
2. Team based. The wraparound team consists of individuals agreed upon by the family and committed to them through informal, formal, and community support and service relationships.
3. Natural supports. The team actively seeks out and encourages the full participation of team members drawn from family members' networks of interpersonal and community relationships. The wraparound plan reflects activities and interventions that draw on sources of natural support.
4. Collaboration. Team members work cooperatively and share responsibility for developing, implementing, monitoring, and evaluating a single wraparound plan. The plan reflects a blending of team members' perspective, mandates, and resources. The plan guides and coordinates each team member's work towards meeting the team's goals.
5. Community-based. The wraparound team implements service and support strategies that take place in the most inclusive, most responsive, most accessible, and least restrictive settings possible; and that safely promote child and family integration into home and community life.

6. Culturally competent. The wraparound process demonstrates respect for and builds on the values, preferences, beliefs, culture, and identity of the child/youth and family, and their community.
7. Individualized. To achieve the goals laid out in the wraparound plan, the team develops and implements a customized set of strategies, supports, and services.
8. Strengths based. The wraparound process and the wraparound plan identify, build on, and enhance the capabilities, knowledge, skills, and assets of the child and family, their community, and other team members.
9. Persistence. Despite challenges, the team persists in working toward the goals included in the wraparound plan until the team reaches agreement that a formal wraparound process is no longer required.
10. Outcome based. The team ties the goals and strategies of the wraparound plan to observable of measurable indicators of success, monitors progress in terms of these indicators, and revises the plan accordingly. (Bruns et al., 2005, p. 3-8)

Walker et al. (2004) were specifically interested in the essential activities and theory of change of wraparound to see if it better communicates the idea of family voice and choice compared to receiving services within a system of care but not through the explicit wraparound process. Past research has provided support that the wraparound process leads to increased family voice and choice, but there has been less empirical support within a greater system of care community (Heflinger et al., 1997; Kutash et al., 2011; McKay & Bannon, 2004; Walker & Schutte, 2004; Walker, Throne et al., 2010).

The essential activities of wraparound highlight four distinct phases: engagement and team preparation, initial plan development, implementation, and transition (Walker et al., 2004). Phases 2 through 4 specifically occur during the Family Team Meeting (FTM) which is thought to be the hallmark of the wraparound process. The FTM operationalizes the principles by following the skeleton of essential activities highlighted by the phases of wraparound and further elaborated by the Wraparound Fidelity Index (WFI) (Bruns, Burchard, Suter, Leventz-Brady, & Force, 2004; Walker et al., 2004). The theory of change developed by the NWI posits that there are two different interacting avenues to obtain desired outcomes. One route focuses on increasing youth and family empowerment and self-efficacy; the other is through team collaboration and the promotion of the family and youth to choose services that fit the family's culture, needs and goals (Walker et al., 2008).

Past research has shown that these interacting avenues lead to greater engagement and empowerment within the focus family (Bruns & Suter, 2010; Walker, Pullmann, Moser, & Bruns, 2012; Walker & Schutte, 2005). Walker et al. (2008) contend that it is partially due to the heavy involvement of the family on the treatment planning process that leads to the improved psychosocial functioning outcomes. Based on the tenets of the strength-based model and recovery, the idea is that by sharing power across all parties, the youth and family obtain ownership in the process and buy into the treatment plan (Deegan, 2004; Osher & Osher, 2002; Rapp & Goscha, 2012).

Family Voice

Family involvement in children's mental health has evolved greatly over the past twenty-five years. As is the theme in many accounts of mental health services history,

programs and services continue to move from viewing the provider as the expert to being in partnership with the consumer and family (Friesen et al., 2011; Stroul & Blau, 2008). Historically caregivers were blamed for the many problems or troubles their child experienced. Notably, mothers were blamed for their children developing schizophrenia or autism. The concept of the “refrigerator mother” was utilized to illustrate a cold, unloving woman who led her child to developing obscure behaviors. This caused many families to hide their children who had mental health or developmental disabilities.

The family movement has followed a similar trajectory to the adult consumer movement (Deegan, 1988; Deegan, 1993; Deegan, 2004). The adult consumer movement sprung out of a need to regain power over one’s own life, materializing through a reverse of shame and blaming, by publically chastising mental health centers and hospitals for poor treatment (Farkas, Gagne, Anthony, & Chamberlin, 2005; Friesen et al., 2011). While these reports were found to be reliable and valid, this led to an antagonistic relationship between the consumers and providers. The family movement also started as a hostile relationship, but over time, many providers and families have discovered that partnership will lead to better outcomes and have worked to join forces for the betterment of policies and programs (Osher & Osher, 2002; Stroul & Blau, 2008). The family movement occurred in two ways: through grassroots family advocacy organizations and top down through providing incentives, establishing consequences, and issuing mandates. While all contributed to the transformation to include families at all levels of service, and program and policy development, top down approaches caused (and are still causing) token participation of families (Osher & Osher, 2002; Stroul & Blau, 2008).

The use of the terminology *family driven care* within children's mental health is often attributed to the 2003 President's New Freedom Commission on Mental Health. The President's New Freedom Commission on Mental Health (2003) states "consumers, along with service providers, will actively participate in designing and developing the system of care in which they are involved" (p. 8). Even though the Commission identified this important goal, it did not elaborate, instead offering broad recommendations such as, "Consumers' needs must drive the care and services that are provided" (p. 27). As a result, the system of care community worked to further define the concept:

Family-driven care means families have a primary decision making role in the care of their own children as well as the policies and procedures governing care for all children in their community, state, tribe, territory and nation. This includes: a) choosing culturally and linguistically competent supports, services, and providers; b) setting goals; c) designing, implementing and evaluating programs; d) monitoring outcomes; and e) partnering in funding decisions. (Stroul & Blau, 2008, p. 251)

While this project will only focus at the individual family level, family driven care is considered within three different levels of the system; treatment/practice level, program level, and system level (Rosenblatt, 1998). This is important to consider because research found that families who received services within a system of care that had great impact from family members at the program and system levels, had more family-driven experiences at the individual treatment/practice level (Hoagwood et al., 2010; Rosenblatt, 1998; Stroul & Blau, 2008). The State of Hawaii has been working to establish a state-wide structure that utilizes system of care values with a special emphasis on family

driven care (Daleiden, Chorpita, Donkervoet, Arensdorf, & Brogan, 2006). Through utilizing a team review process that includes interviews with family members and service providers, they have been able to monitor how youth are getting better more rapidly and efficiently. Between 2002 and 2005, the median rate of improvement nearly tripled and the length of service decreased by 55% (866 to 393 days). In addition to mental health improvement, it has also been found that this approach to care is preferred by caregivers. As a part of the Fort Bragg study, a quasi-experimental satisfaction study was conducted on caregivers (N=984) representing Fort Bragg (demonstration) and two comparison sites, Fort Stewart (Georgia) and Fort Campbell (Kentucky) (Heflinger, Sonnichsen, & Brannan, 1996). Overall, the caregivers at Fort Bragg were significantly more satisfied with services compared to the comparison sites.

Along the lines of family driven care is the idea of family peer support services in which another caregiver who has experienced the mental health system (or other child-serving systems) provides peer support services or advocacy. While a caregiver can advocate for their own family at the individual, program and policy levels, parent support services provide an opportunity for caregivers who want to give back to their communities an opportunity to provide support to another family and/or work with organizations and policy makers to make services more family friendly. Studies have documented that parenting stress and strain is the primary reason that caregivers seek out services (Heflinger et al., 1997; Hoagwood, 2005). In turn, the existence of peer support has been correlated with a reduction in parenting stress and strain (Heflinger et al. 1997; Hoagwood et al., 2010; Osher & Osher, 2002; Stroul & Blau, 2008). The model for caregiver peer support services is still developing as some states are providing funding

mechanisms (i.e., block grant funds or Medicaid billing) to support one-on-one parent support services (Hoagwood et al., 2010). While some CMHI grantee sites have institutionalized the involvement of parent support providers into their program development and some states have representation in committee meetings, it has been one of the harder elements to sustain following completion of a grant (Stroul & Blau, 2008).

As is the theme of this study, there continues to be confusion about terms such as family focused/guided, family voice, and family driven due to lack of clarity in the literature which has led to confusion at the policy and conceptual levels. This study will use concepts better defined by the National Wraparound Institute in which caregivers and youth are considered partners in the treatment process (Bruns, Rast et al., 2006; Bruns & Suter, 2010). The goal is equal power across all parties instead of working towards adversarial roles for the caregiver or youth as has been championed by some consumer and family movements. Equal power between participants in the treatment process is best measured in two tandem ways: observation of FTMs and survey of the caregiver and youth (either paper or through interviews) to assess if all participants have equal say in decisions (Bruns, Burchard, Suter, Leverentz-Brady, & Force, 2004; Friesen et al., 2011).

Dosage

A focus on this study was on the dosage of FTM. The idea of dosage comes from the dose-response methodology frequently used in pharmacology research (Hansen, Lambert & Forman, 2002). The purpose behind the adaption of the methodology from pharmacology to treatment is based on a need to better articulate the clinical impact of specific treatments. Additionally, within this day of accountability and managed care, there is greater concentration on determining the optimum amount of a treatment

modality in order to produce the most cost effective result. Whereas there is practical utility to dose-response analyses, inconsistent findings have been produced in both adult and child literature (Angold et al., 2000; Bickman, Andrade & Lambert, 2002; Howard et al., 1986; Kopta et al., 1994; Miller & Berman, 1983; Robinson, Berman, & Neimeyer, 1990). This study's use of dosage is different from the usual approach to dosage where the focus of the study is to see if there are a specific number of dosages needed to produce an optimum clinical improvement. This study used dosage as a way to analyze diverse outcomes among youth and caregivers served by different programs.

Value-driven practice

The system of care philosophy has some of the same challenges as the NASW Code of Ethics due to the fact that they both use values instead of more concrete guidance for specification and implementation. When adopting a set of subjective values instead of explicit rules, professions lack clarity when choosing how to apply values due to the possibility of continual change. The problem with values is that they reflect an individual's "experiences, context, social roles, politics, and religious beliefs" (Bryan, 2006, p. 9). For that reason, values will continuously change over time. The evolutionary nature of values is apt for individuals, but their application to a profession is problematic. Values are specific to a situation and are subjective in regards to how one ought to perform in particular situations and, therefore, they are not commonly shared (Gert, Culver, & Clouser, 2006). This study hopes to explore if the spread of values is enough to have consistent outcomes within an agency heavily influenced by a system of care, or if wraparound's ability to better articulate its processes leads to improved youth and family voice for those who have an actual FTM.

Social workers and other clinicians in mental health utilize the idea of values quite often. Values are used to describe services, personal preferences, and even ethical orientation (Bryan, 2006; Reamer, 2006; Tjeltveit, 1999). While the uses of values are employed to describe some programs, there is little discussion of whether values are helpful and efficacious. One of the largest problems with values is the multiple understandings of values. As stated by Ralph Barton Perry (1914):

One cannot collect values as one can collect butterflies, and go off into one's laboratory with the assurance that one holds in one's net the whole and no more than the whole of that which one seeks. There is no perforation about the edges of values to mark the line at which they may be detached. (as cited in Tjeltveit,1999, p. 84)

Values are a vast basin to hold assorted ideas that can lead to more confusion than clarity (Tjeltveit, 1999). Tjeltveit (1999) identifies six different value classifications:

- Values as psychological
- Values as ethical
- Values as a means by which the powerful impose their will on the weak
- Values as choices
- Values as authentic expressions of an individual's nature
- Values as cultural and historical. (p. 84-85)

While some theorists try to separate the psychological and ethical (such as behaviorist Skinner and bioethicist Gert), some professional organizations such as the National Association of Social Work (NASW) and the American Psychological Association have built their entire codes of ethics around values (Reamer, 2006; Tjeltveit,

1999). Gert et al. (2006) encouraged the use of a limited number of rules to guide morality while Skinner (1971) separated ethics from psychological interpretations because he did not want to attribute behavior to someone's goodness or badness, but instead the re-enforcement of doing something correctly or incorrectly (as cited in Tjeltveit, 1999).

The National Association of Social Workers' Code of Ethics (1999) emphasizes the use of social work "core values" to guide daily practice. Yet the use of multiple values instead of clear rules leaves the profession open to lack of clarity as to how to apply the values due to the possibility of continual change. Reamer (2006) argues that since the profession's inception, "social workers' attention was focused primarily on cultivating a set of values upon which the mission of social work could be based" (p. ix). Today, the enduring commitment to vulnerable and oppressed people, individual well-being, and social justice, are all based on what Reamer calls "the profession's rich value base" (p. ix). Thinking and acting morally can be particularly challenging when there is a conflict between the personal values of the client and the social worker, between the social worker and the agency, or the social worker and the larger community in which they work. This is specifically why the use of values is troublesome. Values are ever-changing and are open to a wide range of interpretations and may not allow for the social worker to resolve the conflict in order to make a moral decision.

"Emphasizing values when attempting to resolve ethical problems unfortunately concentrates upon what is most different about the individual moral experience" (Bryan, 2006, p. 9).

Bryan (2006) states:

No matter how explicit and comprehensive the identification of conflicting values may be, one may be no more prepared to decide what to do when faced with an apparent dilemma than if the conflict had not been clarified in the first place. Clearly, to develop the capability to critically analyze a moral problem requires more depth of understanding than what is gleaned from a values-emphasized approach; values, both professional and personal, play a role in moral reasoning, but they are insufficient to serve as a complete guide to moral choices and actions. Within the midst of ethical conflicts, where the need for conceptual acuity and developed moral reasoning may be most evident, a values-driven emphasis may be most lacking.

(p. 8)

Mental health has continued to move towards a descriptive, empirical, and psychological approach to values instead of the classical definition of ethical values, which has led to a much more subjective interpretation (Tjeltveit, 1999).

Programs like wraparound are considered value-based practices that explicate the values and guiding principles of wraparound and, by association, system of care (Farkas et al., 2005). For this reason, it is assumed they have the same problem as using values to guide ethics or psychology. Aforesaid for this reason, the NWI worked to identify essential elements of wraparound and developed a fidelity instrument to help monitor the implementation and continuous quality improvement of the process (Bruns, Burchard, Suter, & Force, 2004; Bruns & Suter, 2010; Walker et al., 2008). However, it has been highlighted that system of care has not developed the same degree of guidance to

communities. This is shown through the absence of a national study that demonstrates sustainable results to reveal to what extent former CMHI funded communities have retained all or parts of their system of care following the end of the grant. The only data that can be found shows that wraparound is sustained in communities, but there is no evidence of greater system of care sustainment (Walker et al., 2008). This makes it appear that while system of care is a concept many have bought into, in many places all that occurred was the implementation of wraparound and then changes in the community stopped.

Implementing system of care values

As the discussion about the research-to-practice gap continues, it is important to not only understand how to evaluate new promising practices but truly understand how programs, services and policies are fully implemented (Fixsen et al., 2005). Much of this literature review has focused on the idea that while system of care as a concept is very appealing, there continues to be uncertainty in the ability to implement and sustain it (Boothroyd et al., 2011; Bruns & Walker, 2010; Rosenblatt, 2010). From an implementation science point of view, doing more rigorous research on system of care will not lead to better implementation but instead there is the need for well-defined elements and clear evaluation of what its intended outcome was for children and families (Fixsen et al., 2005). Fixsen et al. (2005) and others who study implementation have shown that while an approach may work in the situation in which it is studied, many things can go wrong once it begins to be implemented in usual practice (Farkas et al., 2005; Glisson, 2007; McHugh & Barlow, 2012). If an approach is not clear enough for a

community or agency to understand how to replicate, then there is no way to know if what is implemented is representative of the original planned approach.

While wraparound has spent much of the first decade of the new millennium better outlining the purpose, steps, and evaluating practice in real communities, system of care has not. Many communities will say they have a functioning system of care, however, it can be assumed that it is not fully implemented based on past research (Bickman, 1996; Chorpita & Donkervoet, 2005; Kutash et al., 2011; Stroul & Blau, 2008).

Implementation can be broken down into three levels: paper, process, and performance. It is estimated that 80-90% of implementations only make it to the paper level. This is where new policies and procedures are put into place but that does not mean real change happens. One reason this is rampant is due to accreditation bodies (JCAHO, CARF, COA) that are geared more towards assessing procedures than evaluating the ability of organizations to provide improved client outcomes (Fixsen et al., 2005). The next step, process implementation, is where an agency puts operating procedures into place such as training, supervision, and auditing. The last, and rarely accomplished, is performance implementation. This is where outcomes are monitored based on the change processes to see if actual improvements occurred for the consumers (Fixsen et al., 2005).

Fixsen et. al. (2005) provides a conceptual model to guide the notion of implementation. First a source is introduced. This is the program, service, or policy that is to be modeled and implemented in a new setting. This new idea is transmitted through the communication link whose job is to actively implement the new program, service, or

policy. The communication link is the process in which the person (or persons) in charge of implementing the new program, service, or policy informs the intended implementer (i.e., clinician) of the change. This stage is important because if the information is not communicated in a way to encourage buy-in from front line staff, the new program, service, or policy will not be implemented. Lipsky (2010), noted that implementation comes down to the people who are tasked with this responsibility. This idea of communication has been continually outlined in Roger's (2003) book, *Diffusion of Innovation*, now in its fifth edition. Rogers (2003) states there are two different kinds of communication; peer communication and broad communication. Rogers (2003) considered peer communication much more influential in adoption of new ideas, but considered broad communication (such as training) as a great way to quickly spread an idea. Through the communication link, the innovation is delivered to the designated organization and staff.

Additionally, Fixsen et al. (2005) identify the need for continuous feedback between the source, communication link, and the destination. Just as Rogers (2003) highlights, one training will not transform an organization. Transformation occurs through continual reinforcement by supervision, new processes, and outcome evaluation. Without those items, the idea of the system of care values will not be easily transfused through an agency just by posting a sign of the values or briefly explaining them at orientation. Instead, if values are to be truly part of the agency culture, communication of the concept must be part of regular conversation, such as during supervision and weekly team meetings. When one considers the idea of peer communication in lieu of broad communication, the idea of values becomes more important. Imagine the idea of

orienting a new staff member to a pre-existing team that uses system of care values to guide practice. When a new staff member enters that environment, he or she will hear how the idea of family driven care plays a role in every day practice. Lastly, it is important to consider all of this within the ecological sphere in which the agency exists. This can influence how well the new program, service, or policy is implemented based on the organizational culture (Glisson, 2007).

Summary of the Literature

The reviewed literature illustrates there is research that wraparound is correlated with increased family voice in treatment planning, while the current literature does not show similar support for system of care. Wraparound has transformed from a “whatever it takes” approach to care to one that is systematically structured while still leaving room for customization. As of 2008, there were nine (experimental and quasi-experimental) studies of wraparound published in peer reviewed journals (Suter & Bruns, 2008). Based on these findings, support continues to grow for the support of high fidelity wraparound in improving outcomes for high need youth.

Whereas wraparound continues to build an evidence base, system of care continues to rely on only a set of core values leading to questions for how achievement of a system of care community is actually measured. Since system of care and wraparound tend to be implemented in tandem, evaluations continue to rely on individual level (wraparound) data, instead of devising ways to account for changes made at the system level (system of care). For this reason, after over twenty-five years of work related to system of care, there is still very little empirical support for the model.

The review was provided to clearly show that there is a need for greater exploration of the actual impact of a system of care structure in a community beyond the service provision of wraparound. Although the attention on children's mental health tends to focus on the children and youth with the greatest amount of need, in order for the system of care concept to be truly successful outcomes need to be assessed based on children of all levels of care who are serviced within the system of care. It was hypothesized that due to the focus on only implementing wraparound instead of focusing on diffusing the system of care concept throughout an entire agency and community, families will only experience increased family voice if they are enrolled in wraparound. This is supported by the literature that wraparound has shown increased family voice as an outcome while system of care has not shown system level improvements and diffusion among the ecological structure of the community (Kutash et al., 2011; Paulson, Fixson, & Friedman, 2004). These findings are compelling because they either support a lack of evidence for system of care, or just a history of lackluster evaluation of the intervention as a whole. As noted, much of the evaluation of system of care has only occurred through assessing child level outcomes.

While micro and macro levels are intimately linked, they are often separated out from one another. Rather, every person working and served within an agency is part of a larger community. Policies are dependent upon those who implement the policy at the service level such as the social worker offering individual counseling. When a social worker interacts with someone at an individual level, this assists them in understanding more fully macro level issues. Direct line workers who work with individuals and families every day in their home and community settings have a better idea of current

social problems and conditions in the United States and on a local level. Social workers may enter the profession thinking he or she will only influence the individual or families with whom they are personally working. Rather, every person they work with is a part of a larger community. This is why it is as important to assess how system level intervention impact families, in addition to individual level interventions.

Just as there continues to be support for consumer driven care in adult mental health, family driven care continues to be correlated with improved outcomes for children and youth (Cornett, 2011; Deegan, 2004; Hoagwood, 2005; ICF Macro, 2011; Levin et al., 2010; Urdapilleta, 2012). The missing link between the value of family driven care within a system of care seems to be how the idea is communicated and received. While this study will not be able to truly observe the communication process within the agency, it was able to see if children and youth at different levels of care in home-based services have a different perception of the idea of family voice in their treatment planning. Whereas this study was directed at only one piece of a greater implementation process, these concepts are still very important to consider when assessing a singular component. If the research-to-practice gap is ever to be tapered, the theoretical and practical features of implementation must become a greater part of the everyday conversation of mental health services.

CHAPTER 3: METHODOLOGY

Sample Description

The sample was drawn from children (0-17) served by a mid-size, Midwestern community mental health center (CMHC) who were active during December 2013. The CMHC serves a catchment area of five rural counties of around 110,000 residents. Annually the agency serves about 5,500 residents of which around 400 youth are enrolled in a community-based mental health program. The CMHC is the fiscal agent of a CMHI funded grant. Children enrolled in the community-based services within the CMHC were the focus of much of the early development of the system of care and individual level data were collected on each child to track and document child and family outcomes. These youth are considered the highest need youth in the region. Many of these youth have a history of hospitalization, removal from a household, and/or incarceration in the past. The overall goal of this community's system of care is to decrease cost and improve overall functioning to change the trajectory of the youth's life.

Although not the focus of the data collection and analysis for this study, past research within this system of care community has shown consistency with the system of care values (Cohen 2012; Cohen & Anderson, 2014). As part of a study that spanned six years, data were collected through an internet-based survey that was distributed to close to 500 providers and community members who are in some way involved with the system of care. With an average response rate of 36% across the three surveys, results showed a positive advancement of the community adoption of the system of care values (including family voice).

Since the establishment of the system of care approximately ten years ago, the focus has expanded to include all children in the community, focusing not only on intensive interventions but on preventative services as well. While this is the current case, the focus of this study was only on children and youth who were the original focus of the system of care: children enrolled in intensive community-based mental health services. This includes two primary programs: intensive home-based services and wraparound. Intensive home-based services are primarily focused on skills building with the focus on the child and caregiver. Additional services are traditional case management, counseling, and psychiatric services. Children enrolled in wraparound usually receive wraparound in addition to intensive home-based services. The wraparound program follows the model designed by the National Wraparound Institute (NWI) and fidelity to the wraparound model is monitored based on the Wraparound Fidelity Index (WFI) (Bruns, Burchard, Suter, & Force, 2004; Bruns & Suter, 2010).

Based on fidelity monitoring managed by the state in which the agency resides, the agency has consistently been scored as achieving high fidelity wraparound. This means that the wraparound program provided within the agency closely follows the model designed by NWI. Eligibility for both programs is based on the Child and Adolescent Needs and Strengths (CANS) assessment. Full explanation of the measure is provided further in the methods section. In order to prescribe the proper services for the child, the assessment item scores are utilized to calculate an overall score ranging from 0 to 6. Traditional outpatient services are offered to children who receive a level of care (LOC) 0 to 2, and LOC 3 to 6 are offered community-based services (wraparound or home-based services). Traditional outpatient is defined as office-based counseling of low

intensity compared to community-based services that occur in a variety of settings (home, school, office, etc.) and are of high intensity of occurrence. Children who score a 6 on the CANS are considered in need of residential placement. Home-based services are provided to youth who receive a score of at least a 3, while wraparound services are provided primarily to children and youth who score a 5 or 6 on the CANS to reduce the need for hospitalization, but may be offered to a youth who scores a 4 if they are involved with other child serving systems (i.e., child welfare, juvenile justice). The primary reason for the variance between an overall score of 3 to a 6 is the existence and severity of risk factors, whereas the CANS items assessing daily functioning, symptomology, and caregiver needs scores are similar. This is because the overall score is based on an algorithm that flags the need for more services (leading to a higher score) based on the existence and severity of risk factors.

Power Analysis

There were 112 children in the sample and 7 possible predictors. Utilizing G*Power, an F test post hoc power analysis was performed (Faul, Erdfelder, Buchner, & Lang, 2009). It was found that a sample of 112 youth with 7 predictors or interactions would have a power quotient (1- β error probably) of .87. Above .80 is considered acceptable. Additionally, based on an exact a post hoc power analysis, it was shown that bivariate correlations would have a power of .96. Due to the restraints of smaller samples, as are usually found in studies occurring within one agency, changes may have to be made to the planned analysis, including reducing the number of predictors to reduce the chance of type II error.

Procedures

As a component of the existing data collection for a CMHI funded community and the CMHC, a sample for this study was obtained from data already collected by the focus agency. A request to proceed with this study was approved by the University of Kentucky Institutional Review Board and the focus agency has already provided permission. Included in the study's protocol was a request to utilize de-identified data that will not include names, full birthdates, social security numbers, or other personally identifying information.

Retrospective, secondary data were collected from the agency's electronic health record (EHR), the CMHI national evaluation database, and an internal agency spreadsheet that includes raw data from the Family Empowerment Scale (FES) collected during December 2013 as part of CARF accreditation data collection. The EHR houses all the medical record and billing data for the CMHC. Individual clinicians enter data directly into the system and documentation is then utilized to monitor client progress and obtain insurance reimbursement. The CMHI national evaluation database was developed by the company that oversaw the national cross-site evaluation for all grantees. The database is a secure web-based system utilized to store data collection tools for the grant. Since the FES was only collected once for all of the children as a part of a report for CARF accreditation, it was only stored in a secure excel spreadsheet within the agency.

The sample was based on children and youth who have completed the FES and additional secondary data were merged from other data sources on the same children. Additional secondary data will include program enrollment (wraparound or only home-based services), CANS (current assessment and prior assessment), enrollment in parent peer support services, involvement in child welfare, and other demographic information

captured within the agency's EHR. Once the dataset was obtained, all client identification numbers were removed and the dataset was unable to be matched back to identifying information. Due to the constraints of secondary data, the study will not be longitudinal in nature but instead will focus on a six-month portion of time that will show how the child has improved over the past six-months based on their CANS and caregiver rating of family functioning and perceived personal voice in their treatment decisions in December 2013.

The CANS is administered every six months to reauthorize services for the child. The current CANS was compared to the one prior to see what improvements have occurred. A limitation of this sample is the fact that some of the CANS assessments utilized were the first assessment for the youth since enrollment in the program while for other youth it is the second CANS assessment. Due to potential variance of service length dosage, length of enrollment will be used as a control variable.

To further clarify, this means that the dataset was constructed of different elements collected at different points in time. Some items, such as demographics were collected at intake and the CANS assessment was collected at intake and every six months after. However, the FES was a one-point-in-time measure for all families that was collected from everyone in 2013.

Human Subjects Protection

Personal identifiers including name, complete birthdate, and social security numbers will not be collected for this study. Children and youth were previously assigned research identifications numbers for the required CMHI evaluation. Those research identification numbers were used to match files together to make the new de-

identified dataset. After the file was merged, new identification numbers were assigned to ensure the dataset cannot be linked back to any identifying information. Any files that provided the ability to link information back to identification were destroyed before analysis begins.

Original Data Sources

The identified data for this study were originally collected as part of regular agency data collection and the CMHI grant.

Measures

The Child and Adolescent Needs and Strengths (CANS) (Lyons, Cornett, & Walton, 2011; Lyons & Walton, 2011) is an assessment tool and quality management process used to measure behavioral health care needs and the strengths of children and their families. The CANS is utilized as the standardized assessment for the public mental health system within the state in which the focus agency is located. The assessment is completed by the youth's primary clinician which is a bachelor's or master's level trained staff member who are under the supervision of an independently licensed social worker, counselor, or psychologist.

The assessment is based on six domains; child behavioral/emotional needs, child risk behaviors, life domain functioning, child strengths, acculturation, and caregiver needs and strengths. Each domain is constructed of related item-level questions that are scored together to construct the domain. The assessment is on a four point scale where needs are rated from 0 (no evidence), 1 (history/watch), 2 (need) to 3 (immediate safety need). The ratings for strengths are flipped where 0 is considered a "centerpiece strength" and 3 means that a strength has yet to be identified. The term "centerpiece strength"

means that the item should be used as a strength to build upon in the treatment planning process. Domain scores are calculated by averaging items within the domain (only those that can change over time as a result of intervention) and then multiplying these item averages by 10 to create uniform 30 point domain scores whereby a '0' indicates all '0' ratings on every item in the domain and a "30" indicates all "3" ratings on every item in the domain. Once the assessment is scored within a domain (0-3) an algorithm is used to recommend an appropriate level of care (services) needed by the child and family. For this study the Cronbach's alpha ranged from .75 to .82 for the domains.

There is substantial research involving the CANS (Anderson & Estle, 2001; Anderson, Lyons, Giles, Price, & Estle, 2003; Anderson, Lyons, Price, & Estes, 2002; He, Lyons, & Heinemann, 2004; Lyons, 2009; Mariush, 2004; Rawal, Lyons, MacIntyre, & Hunter, 2003). Reliability studies have demonstrated that the CANS is reliable at the item and domain level (Anderson et al., 2002; Anderson et al., 2003). Reliability on case record reviews has been demonstrated to be 0.85 while inter-rater reliability with live interview strategies is above 0.90. The reliability of the CANS has been assessed in studies comparing raters' assessments of vignettes and in comparisons of first-hand and chart reviews. Reliability estimates range from .75 to .84 for these studies. Estimated reliabilities of individual items are approximately .70 or higher, with reliabilities of domains approximately .90. Sensitivity to change was assessed in two populations of youth over a six-month period. Effect sizes ranged from .15 (small) to .82 (large) indicating that the instrument may be used to assess outcomes over time. Validity has been demonstrated through the relationship of the CANS to other measures of similar constructs such as the Child Adolescent Functional Assessment Scale (CAFAS) and

Child Behavior Check List (CBCL). In addition, validity has been demonstrated through the relationship of the CANS to service use and outcomes. After an extensive search, no exploratory or confirmatory factor analysis was found of the CANS. The primary author, John Lyons has stated that the domains within the measure are not based on factor analysis categorization but instead based on clinical relevance (Anderson et al., 2002; Lyons & Walton, 2011). It is unclear if that is the reason for the absence of a factor analysis, or if there is another explanation.

The Family Empowerment Scale (FES) is a 34-item self-report measure of a caregiver's perceptions of their family in the context of his or her child's mental health services (Koren et al., 1992). The scale is based on the expression of empowerment through attitudes, knowledge, and behaviors within each of the sub-scales: family, self-efficacy, services, and community. Family refers to the caregiver's perception of his or her child and family's current functioning. Services measure the caregiver's perception of their role in treatment decisions and their ability (self-efficacy) to contribute to the treatment planning process. Community refers to the caregiver's advocacy for improvements for services. The proposed study will only use the family and services subscales because the community subscale is not relevant to any of the study questions. This reduced the questionnaire to 24-items. Scores for subscales are calculated by adding scores for the subscale items, and dividing by the number of questions. If there are missing items (up to 3), the scores for the subscale items are summed, and divided by the number of answered questions. One can add all of the subscales for an overall score or just use the subscales. This study used the individual subscale scores of family and service subscales instead of a total score.

The authors of the tool originally revealed a four factor solution measuring (1) parent's efforts to advocate for and improve mental health services, (2) empowerment within the family unit, (3) caregiver knowledge in working with professional to obtain services, and (4) the right of the caregiver to make decisions for their children. The exploratory factor analysis showed that these four factors accounted for 52% of the variance. The subscales produced good internal consistency (family, $\alpha=.88$; services, $\alpha=.87$; and community $\alpha=.88$). In subsequent psychometric analysis, Singh et al. (1995) found a four factor solution that accounted for 52.5% of the variance. Singh et al. labeled the four factors more simply: (1) advocacy, (2) knowledge, (3) competence, and (4) self-efficacy. These four factors greatly correspond to the Koren et al. (1992) study with congruence coefficients ranging from .88 to .98. For this study the Cronbach's alpha range was reliable (family, $\alpha=.85$ and services, $\alpha=.83$).

Since the proposed study plans to only use the family and services subscales, it is unknown how that will change the factor solution. It is assumed that Koren et al.'s (1992) first factor was the primary one affected by the removal of the community advocacy subscale.

Conceptual and Operational Definitions

Although there is only a singular independent and dependent variable, much concentration was focused on the mediator and moderators in the model. The focus of the study is on the dependent variable: genuine family voice in service planning. Genuine youth and family voice in service planning was measured by the FES (Koren et al., 1992). The FES includes three subscales in which the first two were used in this study. The services subscale was used to operationalize the family empowerment/self-efficacy

and the family subscale was used to operationalize functioning. Based on the scale, a higher score indicates greater involvement of the family in service planning. To see if there is a different experience of the system of care value family voice, program enrollment was used as the independent variable. The conceptual and operational definition of this measure are the same, in that the participant was enrolled in wraparound, or just home-based services (wraparound = 1, home-based = 0).

Dosage of family team meetings was conceptualized as the mediator in the model. While fidelity to the wraparound model states that families are to receive a FTM once a month, there is a chance that not all children and youth received a monthly FTM due to a variety of reasons. Aforementioned it was stated that this community uses FTM for some youth outside of the wraparound (home-based services) to better coordinate services and mitigate crisis. In other words, youth who were enrolled in wraparound were supposed to receive a FTM every month no matter what, while youth enrolled in home-based services were only offered a monthly FTM if there was an increase in need. As stated earlier, while there are programmatic differences between home-based services and wraparound it is hypothesized that the FTM process is truly what communicates the idea of genuine family voice in service planning. Within this sample, the use of a FTM is not synonymous with wraparound enrollment, and was important to see if variability of dosage is connected to the overall experience of genuine family voice in service planning. Above-mentioned, while the traditional approach to dosage focused on a specific number of dosages needed to produce an optimum clinical improvement, this study used dosage as a way to analyze different experiences among youth and caregivers served by different programs.

There are three moderators in the model. The first moderator was perception of functioning. This was measured in two ways; clinician rating and caregiver rating. Caregiver perception of the child or youth was measured by the family subscale of the FES (Koren et al.,1992). Based on the scale, a higher score indicates higher levels of functioning. It is hypothesized that as the child's functioning improves a caregiver will perceive more power in the treatment process which will moderate their perception of genuine family voice in service planning. Secondly, clinician rating of functioning was measured using the CANS domains. It was also used to check for agreement or disagreement among caregiver and clinician about the treatment trajectory of the youth.

The second moderator was involvement in the child welfare system. Due to the legally imposed restraints on caregiver involvement for those involved in the child welfare system, there is a need to see if there are differences in youth and caregiver voice based on system involvement. If the child is currently not in the caregiver's care they may not feel as if they have power or say in the child's services no matter if they received a FTM or not. This variable was coded as a nominal level and dummy code (yes = 1, no = 0) for each system.

The last moderator was enrollment in caregiver peer support services. Just like enrollment in wraparound, program enrollment was accessed to see which child and youth's caregivers utilized parent partner services. While there is no consistent definition throughout the United States at this point in time, this agency defines caregiver peer support services as one-on-one services provided by a secondary consumer (caregiver of a child served by the mental health system) in which skills training, advocacy, and case management are provided (Hoagwood, et al., 2010; Stroul & Blau, 2008). The

conceptual and operational definition of this measure are the same, in that the participant was enrolled in parent partner services (yes = 1, no = 0).

A variety of variables was used as control variables to adjust for variability in the sample. Sex of youth was used as a control variable. This variable was coded as a nominal level and dummy code (male = 1, female = 0). Age of youth was used as a control variable. Because past research has shown that due to the developmentally appropriate conflicts that occur between a teen and caregiver, there may be difficulties finding agreement among all three parties (provider, caregiver, and youth) (Walker & Bruns, 2006b; Walker, Throne et al., 2010). Lastly, in order to control for the variability between time of enrollment in services, the number of months enrolled was used as a control. Race will not be used as an independent or control variable in this study because 98% of the individuals in the proposed sample are white.

Hypotheses

H₁: Differences between scores of empowerment/self-efficacy on the FES by program enrollment was mediated by the dosage of FTMs provided to the family. There will be a positive relationship between scores of empowerment/self-efficacy on the FES and dosage of FTMs.

H₂: The effect of participation in FTM was moderated by involvement in the child welfare system. The mediation effect of a greater number of FTMs will only increase the score of empowerment/self-efficacy on the FES for those who are not involved in the child welfare system.

H₃: Differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by improvements in psychosocial functioning.

H₄: Self-reported improvement in psychosocial functioning was positively correlated with clinician reported improvements in psychosocial functioning.

H₅: Differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by participation in parent peer support services.

Data Analysis

Descriptive statistics were employed to explore the sample and to identify any problems related to the distribution of the sample. The first step to explore hypotheses was to examine the demographic make-up of the sample (i.e., sex, age, diagnosis) and to explore program enrollment, dosage of FTM, and child welfare involvement. Then measures of dispersion were used to examine the scores of the FES for the overall sample and to compare means of the two groups (wraparound and home-based). The same process was administered to assess the scores of the CANS assessment for all youth. Next, correlational analysis were examined to see if there are bivariate relationships between the independent variables of program enrollment, age, diagnosis category, or sex and the dependent variable of scores of empowerment/self-efficacy on the FES. Additionally, correlations were examined between the independent variables, dependent variables and the mediator; dosage of FTM, and the moderator variables; child welfare involvement, psychosocial functioning, and enrollment in parent peer support services. Hypothesis 4 was assessed by examining a bivariate correlation of self-reported improvements in psychosocial functioning with clinician reported improvements in psychosocial functioning. Potential interactions between the mediator, moderators, and the independent variables were also analyzed.

To determine if there is support for hypothesis 1-3 and 5, a multivariate approach was administered using multiple regression which assumes a normal distribution. The analysis included a mediation, moderation and conditional process analysis to assess the outcomes of the study (Hayes, 2013). The Statistical Program for Social Sciences v.21 (SPSS) was utilized to conduct the univariate, bivariate, and multivariate analyses. A special extension program for SPSS was used for the mediation, moderation, and conditional process analyses in the model (Hayes, 2013). Conditional process analysis builds upon traditional mediation and moderation analyses by combining both mediation and moderation in a single analysis. This has been called moderated mediation or mediated moderation by other authors (Hayes, 2013). Direct and indirect effects were examined for the mediator and each of the moderators.

Summary of Methodology

The purpose of this chapter was to provide a summary of the secondary data used for the proposed study. This chapter reviewed methods chosen for the analysis, specified hypotheses to be tested and described the variables of interest.

The data collection and methodology was selected to best meet the research questions within the constraints of using secondary data. The use of mediator and moderator variables were identified because it is believed that interaction of multiple variables better explains the process that leads to increased family empowerment.

CHAPTER 4: RESULTS

Analyses of data focused upon identifying the nature of relationships between the caregiver's perception of empowerment/self-efficacy and the mediator of FTM dosage, as well as the role of the moderators such as child welfare involvement, psychosocial functioning, and participation in caregiver peer support. This chapter presents descriptive statistics for all children included in the study. Following the sample description, bivariate variables are discussed. Finally, results from the mediator, moderation and conditional process analysis are presented in order to identify the relationship between FTM dosage, child welfare involvement, psychosocial functioning, participation in caregiver peer support, and caregiver's perception of empowerment/self-efficacy.

Descriptive Analyses

Sample Description

The sample consisted of children and youth served by a singular CMHC's community-based mental health programs during December 2013 ($N=112$). The programs (home-based and wraparound) both follow the system of care values as outlined in chapter 2. In order to be considered for the sample, the youth must have been in their first episode of care (meaning they have not exited and re-entered services) and their caregiver completed the Family Empowerment Scale (FES). Based on internal agency records, 214 youth were enrolled to either program during December. After removing youth due to the exclusionary factors (those not in their first episode of care and or have not completed the FES), 52.3% of youth were included in the sample. The sample was evenly distributed between male and female (52.7% male), which is actually inconsistent with most studies of children's community-based mental health services.

Most samples have a majority of male youth (60-70%) unlike in this sample. The sample is 99% white which is consistent with the demographic of area served by the focus agency. The median age was 9 and the ages ranged from 3 to 17. The median age is lower than the national average of other similar studies that tend to be around 12 years of age. This is because this agency and state have placed a focus on early childhood mental health leading to a rise in the number of 0-5 aged children served. A majority of youth were enrolled in home-based services (66.1%) compared to those involved in wraparound (33.9%). Time enrolled in services had a median length of 7 months and a mean of 10.68 months with a range of 6 to 26 months. Youth enrolled in wraparound had a less-skewed distribution with a mean of 12.47 months and a median of 12 months compared to a mean of 10.02 months and median of 6 months for home-based services enrollment.

Historically, this agency stated its mean enrollment time from intake to discharge for home-based services and wraparound is 18 months. Of the youth, 25.9% were actively involved in child welfare while the others were not. Additionally, only a small percentage of caregivers were actively working with a peer provider (11.6%).

Diagnostic Categories

Analysis of the Axis I, primary diagnoses showed a majority of the youth were diagnosed with a disorder that largely exhibited externalizing behaviors. Thirty-percent of the youth were diagnosed with Attention Deficit/Hyperactivity Disorder and 29% were diagnosed with Disruptive Behavior Disorder NOS. Eleven percent of the youth were diagnosed with Major Depression or a Mood Disorder, while the other third of youth were distributed between other common SED diagnoses. Table 4.1 summarizes the child and youth characteristics.

Table 4.1

Child and Youth Characteristics (N=112)

Trait	N (% of sample)
Sex	
Male	59 (52.7%)
Female	52 (47.3%)
Program Enrollment	
Home-based services	80 (73.2%)
Wraparound	30 (26.8%)
Child Welfare Involvement	
Yes	29 (25.9%)
No	83 (74.1%)
Caregiver Peer Support	
Yes	13 (11.6%)
No	99 (88.4%)
Diagnostic Category	
Attention-deficit/hyperactivity disorder	34 (30%)
Disruptive behavior disorder	33 (29%)
Major depressive disorder / mood disorder	12 (11%)
Oppositional defiant disorder	9 (8%)
Generalized anxiety disorder	6 (5%)
Posttraumatic stress disorder	6 (5%)
Reactive attachment disorder of infancy or early childhood	4 (4%)
Adjustment disorder	3 (3%)
Bipolar I disorder	2 (2%)
Conduct disorder	2 (2%)
Psychotic disorder NOS	1 (1%)

Bivariate Analyses

Bivariate analyses were conducted on the independent variable (program enrollment), mediator (FTM dosage), moderators (child welfare involvement, caregiver peer support services and psychosocial functioning), and control variables (age, sex, and length of enrollment) to determine if significant bivariate relationships exist among them.

Mediator relationships: FTM dosage.

While the use of FTM is usually just a characteristic of wraparound within the focus agency and state, the use of a collaborative treatment planning model is encouraged outside of wraparound in order to mitigate situations in which child welfare is involved or to react to a situation in which need severity is increasing. While collaborative treatment planning may be called by different names, for the ease of reading, only the term FTM was used. To assess if there are specific patterns related to the use of FTM, a series of cross tabulations and correlations were evaluated. Due to the presence of empty cells, the chi-square statistic could not be applied to the cross tabulations; therefore, no significance testing was done. First, a cross tabulation of program enrollment (wraparound and home-based) was analyzed with FTM dosage. There were no youth in either enrollment group who had only one FTM during the six month time. Fourteen youth enrolled in home-based received two FTMs and eight youth enrolled in home-based received three FTM. Three youth enrolled in wraparound received four FTM compared to five enrolled in home-based. Seventeen youth enrolled in wraparound received five FTM, while the majority of youth enrolled in wraparound (n=24) received the fully prescribed dosage of six FTM over a six month period. In order to see if there are specific reasons for youth enrolled in home-based services to receive an FTM, child welfare involvement was included as a third variable in a cross-tabulation and additionally the family subscale of the FES was analyzed with FTM dosage using a bivariate correlation to see if there was a relationship. Only six of twenty-seven youth enrolled in home-based services who received a FTM were also child welfare involved.

Table 4.2

Exploration of child welfare involved based on FTM dosage

Child Welfare Involved			FTM Dosage					Total		
			0	2	3	4	5		6	
No	Home-based	Count	41	13	8	0	0	0	62	
		% within FTM	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	74.7%	
	Wraparound	Count	0	0	0	3	1	17	21	
		% within FTM	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	25.3%	
Yes	Home-based	Count	14	1	0	5	0	0	20	
		% within FTM	100.0%	100.0%	0.0%	100.0%	0.0%	0.0%	69.0%	
	Wraparound	Count	0	0	0	0	2	7	9	
		% within FTM	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	31.0%	
			Count	55	14	8	8	3	24	112
			% within FTM	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Caregiver peer support.

A moderately strong relationship between caregiver peer support and FTM dosage (*Spearman's rho* = .310, $p=.001$), and FTM dosage and program enrollment (*Spearman's rho* = .410, $p<.001$) was found. Since caregiver peer support was a newer service, this supports the idea that peer support is first offered to caregivers who have children with the greatest severity or increasing needs (i.e., wraparound).

Family Empowerment Scale.

As described in the methodology section, two sub-scales from the FES were used for this study. The family sub-scale (measuring psychosocial functioning) scores ranged from 26 to 60 ($M = 48.5$, $SD = 6.61$), with a possible total score of 60. The services sub-scale (measuring empowerment/self-efficacy) ranged from 31 to 50 ($M = 45.0$, $SD = 4.83$), with a possible total score of 50. Both sub-scales were equally distributed as exhibited by similar mean and median scores. There was a strong positive relationship between scores on both sub-scales ($r = .537$, $p> .001$). Both sub-scales had a negative relationship between the sub-scale score and FTM dosage (family: $r = -.174$, $p= .066$;

services: $r = -.205, p = .03$). Whereas the FES sub-domains were analyzed for bivariate analyses with every variable, the only other relationship found was a positive relationship between child welfare involvement and the family sub-scale (*spearman rho* = .206, $p = .03$). This is an interesting finding because one would assume there would be a negative relationship between the sub-scale score and participation in child welfare. This finding suggests that caregivers who perceive better functioning are those who are involved in child welfare.

Child and Adolescent Strengths and Needs Assessment (CANS).

Using each youth's current CANS assessment and the one that occurred six months prior, five primary domains were calculated: caregiver strengths and needs, child strengths, life domain functioning, child risks behaviors, and child behavioral and emotional needs. As to be expected, there are many statistically significant relationships between domains on the CANS. The strongest relationships were between each domain's time 1 and time 2 scores. The weakest relationships appear to be between the caregiver domain at time 1 or time 2 and any other domain time points. This suggests that caregiver strengths and needs are less related to the child's trajectory as the other child domains. Between the domains, the strongest relationships were between child behavioral and emotional needs, child risk behaviors, and life domain functioning. The change in direction of the relationship between the time 1 strength scores and time 2 strength scores and all other domains display that need scores are reducing as strength scores are increasing for the child. The greatest association is between the time 2 life functioning domain ($r = .261, p = .006$) and the time 2 child behavioral and emotional needs domain. The life functioning domain measures items such as concepts related to school,

home life, and health. This indicates that problems or improvements in the child's environmental context are most closely related to their child behavioral and emotional needs.

Table 4.3

Relationships between CANS domains at baseline and 6 months

	Child Behavioral and Emotional Needs T1	Child Risk Behaviors T1	Life Functioning Domain T1	Strengths T1	Caregiver Strengths and Needs T1	Life Functioning Domain T2	Caregiver Strengths and Needs T2	Child Behavioral And Emotional Needs T2	Child Risk Behaviors T2	Strengths T2
Child Behavioral And Emotional Needs T1	1	.700**	.683**	-.211*	.097	.617**	.049	.878**	.732**	.235*
Child Risk Behaviors 1	.700**	1	.614**	-.202*	.155	.555**	.077	.618**	.804**	.031
Life Functioning Domain T1	.683**	.614**	1	-.315**	.204*	.839**	.104	.569**	.516**	.187*
Strengths T1	-.211*	-.202*	-.315**	1	-.275**	-.281**	-.175	-.151	-.211*	-.322**
Caregiver Strengths and Needs T1	.097	.155	.204*	-.275**	1	.221*	.813**	.082	.140	.182
Life Functioning Domain T2	.617**	.555**	.839**	-.281**	.221*	1	.269**	.648**	.573**	.261**
Caregiver Strengths and Needs T2	.049	.077	.104	-.175	.813**	.269**	1	.158	.205*	.165
Child Behavioral And Emotional Needs T2	.878**	.618**	.569**	-.151	.082	.648**	.158	1	.759**	.216*

Table 4.3, continued

Relationships between CANS domains at baseline and 6 months

Child Risks Behaviors T2	.732**	.804**	.516**	-.211*	.140	.573**	.205*	.759**	1	.139
Strengths T2	.235*	.031	.187*	-.322**	.182	.261**	.165	.216*	.139	1

*=p<.05, **=p<.01, ***=p<.001

In order to assess if there were statistically significant changes between time 1 and time 2 scores on the CANS, a series of paired sample t-tests were conducted. Findings show statistically significant improvement for three out of five categories.

Table 4.4

CANS Paired Sample T-test

CANS Domain	Time 1 Mean	Time 2 Mean	T score
Caregiver Strengths and Needs	11.33	11.37	-.153
Child Strengths	14.31	8.32	10.531***
Life Domain Functioning	10.83	10.67	.829
Child Risks Behaviors	4.58	3.8	3.231**
Child Behavioral And Emotional Needs	11.04	10.27	3.954***

=p<.01, *=p<.001

Based on the *t*-tests, three out of five domains showed statistically significant changes. To be consistent with the CANS assessment, the Relative Change Index (RCI) was calculated. The RCI is used to indicate if change is truly significant based on the average reliability of overall state scores. The (RCI) is a concept used to monitor outcomes based on the CANS. The RCI is a way to normalize the scale to provide a way to score improvement (or lack thereof) across different children. The RCI works by determining how large a change would need to be observed on a scale to be replicable given the reliability of the measure. The size of the RCI therefore depends both on the variability of the measure (i.e., standard deviation) and the reliability of that measure. A standard error of measurement of 1.28 is used as the standard of sufficient change. The reliable change index is calculated by $RCI = 1.28 * \sigma \sqrt{1 - (\sigma_x^2)}$. Domain scores are calculated by averaging items within the domain (only those that can change over time as a result of intervention) and then multiplying these item averages by 10 to create uniform 30 point domain scores whereby a “0” indicates all “0” ratings on every item in the domain and a “30” indicates all “3” ratings on every item in the domain.

The RCI is a recommended cut off based on a comparison of a singular youth’s CANS scores to the improvement trajectory of all youth in the state the prior year. Based on the RCI, only the strengths domain had greater than 20% of individuals who were at or above the RCI cut off.

Table 4.5

Relative Change Index for CANS scores

CANS Domain	RCI Cut off	% of youth who met or exceeded cutoff
Life Domain Functioning	=/> 1.58	14.3%
Child Behavioral and Emotional Needs	=/> 2.20	17%
Caregiver Strengths and Needs	=/> 2.78	12.5%
Child Strengths	=/> 3.36	67%
Child Risks	=/> 1.58	19.6%

To assess for differences between groups, two additional paired *t*-tests were conducted to check for differences between the two enrollment groups prior to multivariate analysis. The purpose of this analysis was to check for between group differences prior to using the variable as an independent variable.

Table 4.6

Paired T-test: Comparison of Program Enrollment

CANS Domain	Wraparound T-score	Home-based T-score
Caregiver Strengths and Needs	1.46	-1.18
Child Strengths	4.46**	9.68**
Life Domain Functioning	.826	.43
Child Risks Behaviors	2.90*	1.75
Child Behavioral And Emotional Needs	1.73	3.87**

p*<.01, *p*<.001

Since this study is focused on the use of FTM as a mediator, an additional paired *t*-test was employed to look at differences between those who obtained at least one FTM and those who did not. The differences in analysis outcomes between enrollment groups and FTM dosage show that there is a reason to explore how enrollment and FTM dosage interact with one another.

Table 4.7

Paired T-test: Comparison of FTM incidence

CANS Domain	FTM=Yes T-score	FTM =No T-score
Caregiver Strengths and Needs	.69	-1.35
Child Strengths	6.44**	8.75**
Life Domain Functioning	.34	.94
Child Risks Behaviors	3.09*	1.15*
Child Behavioral And Emotional Needs	2.79*	3.27

p<.01, *p<.001

Taken together it shows that although as a full sample there are improvements in three of the domains. When different dichotomies are unpacked, it appears the youth who obtained at least one FTM had greater gains, no matter what program they were enrolled.

Comparison of the FES family sub-scale to the CANS.

In comparing the CANS scores to the family sub-scale of the FES, very few relationships were found. A positive relationship was found between the time 1 CANS child strength domain and the family sub-scale ($r = .235, p = .031$), and a negative relationship was found between the time 1 CANS caregiver strengths and needs domain and the family sub-scale ($r = -.201, p = .034$). This shows that there is little support for hypothesis 4, stating that self-reported improvements in psychosocial functioning was positively correlated with clinician reported improvements in psychosocial functioning.

Control Variables

The control variables; age, sex, and length of enrollment were assessed for bivariate relationships between each of them and the independent, dependent, mediator, and moderator variables. The only significant relationship was between program enrollment and enrollment length of time ($spearman\ rho = .209, p = .027$). A possible

explanation for this is the fact youth enrolled in wraparound had a median length of enrollment of twelve months compared to seven months for youth enrolled in home-based services.

Summary of Descriptive and Bivariate Findings

Based on the preliminary findings leading into the multivariate analyses, the decision was made to not use the CANS assessment in the multivariate analysis due to the lack of relationship between the CANS scores and other variables. This is the reason why enrollment time must be controlled for in the multivariate analysis.

Multivariate Analyses

The multivariate analyses focused around the use of mediator, moderator, and conditional process regression analyses. In the following pages, each hypothesis was restated and the related descriptive and bivariate information was summarized. To provide clarity, a visual model of each analysis was provided to better describe the mediator or moderation relationship that was explored.

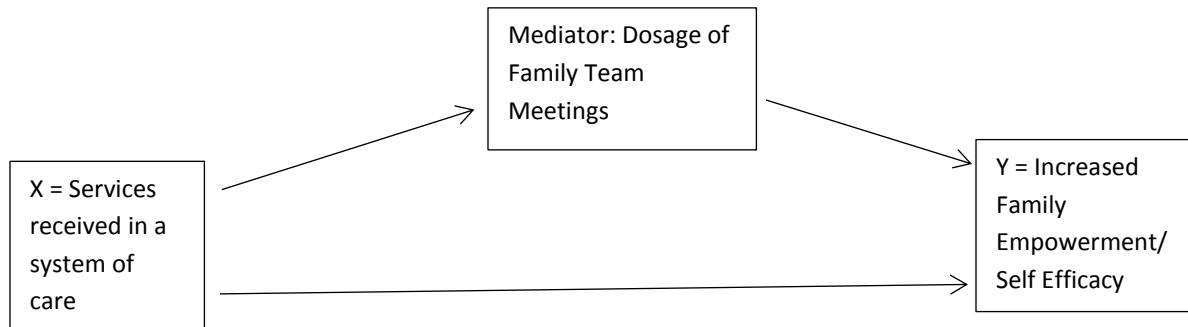
In this study the question is not just if families feel more empowered or have greater self-efficacy, but instead what are the mechanisms that lead to this. For this reason, mediation, moderation and conditional process regression analysis were selected as the analytical strategy to help answer the question as to how causal agent X transits its effect to Y (Hayes, 2013).

Hypothesis 1

Hypothesis 1 states: differences between scores of empowerment/self-efficacy on the FES by program enrollment was mediated by the dosage of FTMs provided to the

family. It was hypothesized this would be a positive relationship between scores of empowerment/self-efficacy on the FES and dosage of FTMs.

Figure 4.1. Hypothesis 1



Hypothesis 1: Multivariate analysis.

In order to test this relationship, an OLS regression mediation model was conducted using the SPSS extension Process, model 4 (Hayes, 2013). Program enrollment (wraparound, home-based services) was included as the independent variable and the FES services sub-scale was included as the dependent variable. First, to assess for direct effects, the model was run with only the independent variable, dependent variable, and the control variables of age, sex, and length of enrollment. Secondly, it was conducted again with the mediator, FTM dosage to assess for direct effects. Lastly, the model was assessed for indirect effects to see if there is a relationship between the independent variable and the dependent variable when a mediator is included in the model.

Direct effects.

Direct effects were assessed by evaluating the direct relationship between program enrollment and FTM dosage, and program enrollment and family empowerment/self-efficacy. The direct relationship between program enrollment and FTM was significant ($F=87.8801$, $R^2=.7666$, $p<.01$). This was expected and there was a

strong relationship between program enrollment and FTM ($\beta= 4.8442, p<.01$). Even though this is a significant relationship, it is not of interest to the present study because youth enrolled in wraparound are supposed to receive FTM, while only some youth enrolled in home-based services received FTM. Aforementioned, youth enrolled in wraparound were to have monthly FTM, while there was not prescribed quantity of FTM for home-based enrolled youth. The focus on this study is on what role FTM plays in family empowerment and self-efficacy and if there is any explanation for why some youth received FTM, or at a higher dosage. The control variables of age ($\beta=-.0059, p=.8656$), sex ($\beta=-.2116, p=.3593$), and enrollment time ($\beta=-.0012, p=.9508$) were all found to be non-significant. This provided support that there is an equal distribution of ages, males, and enrollment length between the two groups.

The direct relationship between program enrollment and family empowerment/self-efficacy produced a non-significant model ($F=2.3338, R^2=.0802, p=.0603$). While it was not significant, there were things of interest in the findings. Whereas program enrollment ($\beta=-1.6633, p=.1124$), age ($\beta=-.1136, p=.4027$), and sex ($\beta=1.4393, p=.1122$) did not produce significant results, the control variable of enrollment time did ($\beta=.1586, p=.0405$). This finding suggests that a caregiver's perception of their level of empowerment/self-efficacy increases over time.

Indirect effects.

The addition of FTM as a mediator into the model led to more relationships ($F= 2.7418, R^2= .1145, p= .0207$). Once again sex ($\beta= -1.6633, p= .1124$) and age ($\beta=- 1.6633, p= .1124$) are not significant, however the mediator of FTM has a negative relationship with the dependent variable ($\beta= -7547, p= .0453$) and enrollment time had a

positive relationship with the dependent variable ($\beta = .1576, p = .0389$). A Sobel test (normal theory test for indirect effect) was employed to see if the indirect path from the IV to the DV is statistically significantly different from zero. Based on the finding, there is support for an indirect relationship ($Effect = -3.6560, SE = 1.8187, Z = -2.0102, p = .0444$). This finding implies that the addition of more FTMs leads to a caregiver rating their level of empowerment/self-efficacy as lower, however time leads their level of empowerment/self-efficacy to increase.

Table 4.8

Hypothesis 1: FTM treated as a mediator

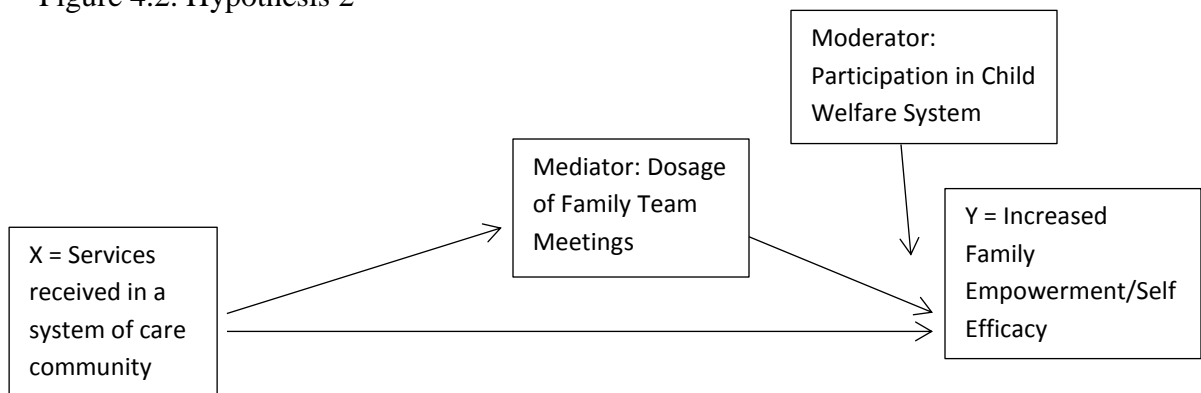
	Direct Effects (Y=FTM Dosage)				Mediator (Empowerment/ Self-efficacy)				Direct Effects (Y=Empowerment/ Self-efficacy)			
	β	SE	t	p	β	SE	t	p	β	SE	t	p
X (Program Enrollment)	4.8442	.2658	18.226	.0000	-1.9927	2.0753	.9602	.3392	-1.6633	1.0391	-1.6008	.1124
M (FTM Dosage)	-----	-----	-----	-----	-.7547	.3726	-2.0256	.0453	-----	-----	-----	-----
Control (Age)	-.0059	.0346	-.1696	.8656	-.1181	.1334	-.8853	.3780	-.1136	.1353	-.8402	.4027
Control (Sex)	-.2116	.2299	-.9207	.3593	1.2797	.8894	1.4388	.1532	1.4394	.8986	1.6017	.1122
Control (Enrollment Time)	-.0012	.0196	-.0619	.9508	.1576	.0754	2.0913	.0389	.1586	.0765	2.0736	.0405
Constant	1.0528	.4134	2.5469	.0123	43.9329	1.6408	26.7758	.0000	43.1384	1.6161	26.6925	.0000
		R ² =.7666				R ² =.1145				R ² =.0802		
		F=87.8801, p < .0000				F=2.7418, p=.0227				F=2.3338, p=.0603		

Hypothesis 2

Hypothesis 2 stated: the effect of participation in FTM was moderated by involvement in the child welfare system. The mediation effect of a greater number of FTMs will only increase the score of empowerment/self-efficacy on the FES for those who are not involved in the child welfare system. As stated above, 25.9% of youth were actively involved in child welfare and

there was a positive relationship between child welfare involvement and the family sub-scale (*spearman rho* = .206, *p* = .03). It is noteworthy that a positive relationship was found, as it is often assumed that families involved in the child welfare system would perceive their functioning as worse. There may be a positive secondary effect of families perceiving increased functioning as a result of just being involved in the child welfare and/or mental health system.

Figure 4.2. Hypothesis 2



Hypothesis 2: Multivariate analysis.

To test for the presence of a mediator and moderator relationship, an OLS regression conditional process model was conducted using the SPSS extension Process, model 14 (Hayes, 2013). Although mediation and moderation tend to be treated separately, there is benefit to assessing models for mediation and moderation in tandem. Hayes (2013) states mediation analyses are likely to be also moderated, meaning they are likely to operate differently in different circumstances.

Program enrollment (wraparound, home-based services) was included as the independent variable and the FES services sub-scale was included as the dependent

variable. FTM was included as the mediator and child welfare involvement was included as a moderator. Age, sex, and enrollment time were included as control variables.

Direct effects.

The direct effects for this model is the same as hypothesis 1, the relationship between program enrollment and FTM dosage, and program enrollment and family empowerment/self-efficacy ($F=87.8801$, $R^2=.7666$, $p<.01$). Aforementioned the direct effects are not of interest.

Indirect effects.

The addition of child welfare into the model changed it from a simple mediator model to a conditional process model and reduced the effect of the mediator on the dependent variable and produced a narrowly non-significant result ($F=2.0505$, $R^2=.1213$, $p=.0556$). FTM dosage ($\beta= -.6862$, $p=.0929$), child welfare involvement ($\beta= 1.25$, $p=.3732$), age ($\beta= -.1031$, $p=.4475$) and sex ($\beta= 1.2226$, $p=.1759$) were not significant. The only variable that was significant in the model was enrollment time ($\beta=.1576$, $p=.0416$) continuing to provide support that family empowerment/self-efficacy increases over time. The interaction between FTM dosage and child welfare involvement was not significant showing no support for child welfare involvement as a moderator ($\beta= -.2491$, $p=.5381$).

Table 4.9

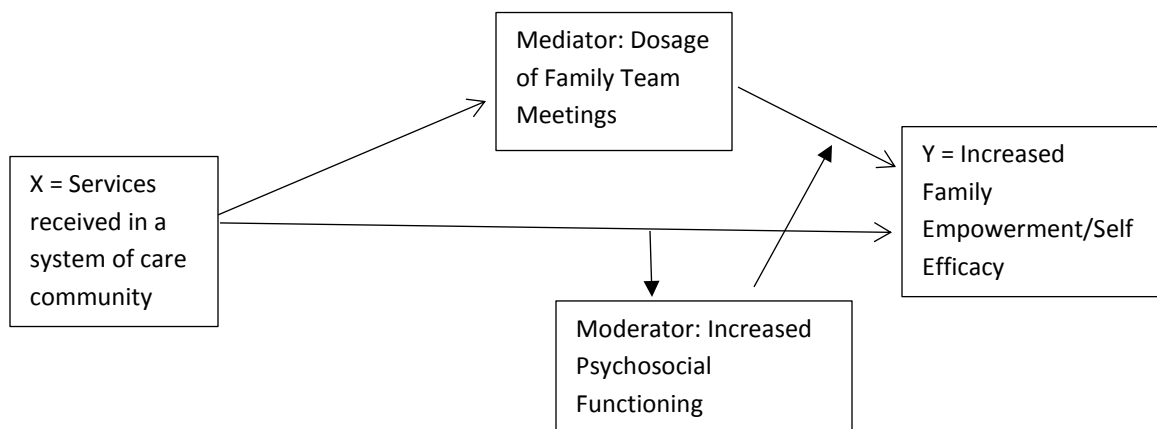
Hypothesis 2: Effect of FTM dosage and child welfare involved on family empowerment/self-efficacy

	Mediator (FTM Dosage)				Y (Empowerment/ Self-efficacy)			
	β	SE	t	p	β	SE	t	p
X (Program Enrollment)	4.8442	.2658	18.2267	.0000				
M (FTM Dosage)	-----	-----	-----	-----	-.6862	.4046	-1.6961	.0929
V (Child Welfare Involved)	-----	-----	-----	-----	1.25	1.4075	.8943	.3732
FTM Dosage X Child Welfare Involved	-----	-----	-----	-----	-.2491	.4032	-.6177	.5381
Control (Age)	-.0059	.0346	-.1696	.8656	-.1031	.1352	-.7625	.4475
Control (Sex)	-.2116	.2299	-.9207	.3593	1.2226	.8971	1.3629	.1759
Control (Enrollment Time)	-.0012	.0196	-.0619	.9508	.1576	.0764	2.0631	.0416
Constant	1.0528	.4134	2.5469	.0123	43.5236	1.7202	25.2019	.0000
		R ² =.7666				R ² =.1213		
		F=87.8801, p<.0000				F=2.0505 p=.0556		

Hypothesis 3

Hypothesis 3 stated that the differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by improvements in psychosocial functioning. Unlike for hypotheses 2 and 5, the moderator included in hypothesis 3 is not a particular program or system but instead it is the caregiver’s perspective of the child’s functioning based on the family sub-scale of the FES.

Figure 4.3. Hypothesis 3



As stated above, two sub-scales from the FES were used for this study. The family sub-scale measured the caregiver's perception of the family's current functioning and the services sub-scale measured the caregiver's perception of their level of empowerment/self-efficacy in treatment decisions. The family sub-scale scores ranged from 26 to 60 ($M = 48.5$, $SD = 6.61$), with a possible total score of 60. The services sub-scale ranged from 31 to 50 ($M = 45.0$, $SD = 4.83$), with a possible total score of 50. There was a strong positive relationship between scores on both sub-scales ($r = .537$, $p > .001$). Both sub-scales had a negative relationship between the sub-scale score and FTM dosage (family: $r = -.174$, $p = .066$; services: $r = -.205$, $p = .03$).

Hypothesis 3: Multivariate analysis.

A conditional process model was conducted using the SPSS extension Process (Hayes, 2013). Program enrollment (wraparound, home-based services) was included as the independent variable and the FES services sub-scale was included as the dependent variable to represent empowerment/self-efficacy. The model included the control variables of age, sex, and length of enrollment time. FTM dosage was included as the mediator, and psychosocial functioning as measured by the family sub-domain of the FES was included as the moderator.

Direct effects.

The direct effects for this model is the same as hypothesis 1, the relationship between program enrollment and FTM dosage, and program enrollment and family empowerment/self-efficacy ($F = 87.8801$, $R^2 = .7666$, $p < .01$). As stated above the direct effects are not of interest.

Indirect effects.

The addition of FTM as a mediator and psychosocial functioning into the model led to a significant model, but it appears to not support the use of psychosocial functioning as a moderator ($F=7.1851$, $R^2=.3582$, $p<.01$). Once again sex ($\beta=-1.2132$, $p=.7310$) and age ($\beta=-.0405$, $p=.2139$) are not significant, however the mediator, FTM dosage becomes non-significant in this model ($\beta=2.737$, $p=.2993$). However, the moderator of psychosocial functioning has a positive relationship with the dependent variable of empowerment/self-efficacy ($\beta=.3928$, $p<.01$) and enrollment time has a positive relationship with the dependent variable ($\beta=.1422$, $p=.0350$). There was no interaction between FTM dosage and psychosocial functioning ($\beta=-.0658$, $p=.2409$) or program enrollment psychosocial functioning ($\beta=.3879$, $p=.2139$). This analysis shows that there is no support for this model, but there is a need for more investigation into the effect of psychosocial functioning on empowerment/self-efficacy.

Table 4.10

Hypothesis 3: Mediator/Moderator relationship of FTM dosage and psychosocial functioning on family empowerment/self-efficacy

	Mediator (FTM Dosage)				Y (Empowerment/ Self-efficacy)			
	β	SE	t	p	β	SE	t	p
X (Program Enrollment)	4.8442	.2658	18.2267	.0000	-17.7149	14.4873	-1.2228	.2242
M (FTM Dosage)	-----	-----	-----	-----	2.7377	2.6241	1.0433	.2993
V (Functioning)	-----	-----	-----	-----	.3928	.0761	5.1596	.0000
FTM Dosage x Functioning	-----	-----	-----	-----	-.0658	.0558	-1.794	.2409
Program Enrollment x Functioning	-----	-----	-----	-----	.3879	.3101	1.2506	.2139
Control (Age)	-----	-----	-----	-----	-.0405	.1176	-.3448	.7310
Control (Sex)	-.2116	.2299	-.9207	.3593	1.2132	.7800	1.5554	.1229
Control (Enrollment Time)	-.0012	.0196	-.0619	.9508	.1422	.0666	2.1370	.0350
Constant	1.0528	.4134	2.5469	.0123	23.8465	4.2633	5.5934	.0000
		$R^2=.7666$				$R^2=.3582$		
		$F=87.8801$, $p <.0000$				$F=7.1852$, $p<.0000$		

Since there was support for a relationship between psychosocial functioning and empowerment/self-efficacy, but not as a moderating relationship, a linear OLS regression model was conducted with psychosocial functioning and FTM dosage as independent variables and empowerment/self-efficacy as the dependent variables, with the control variables of age, sex, and time of enrollment. This model shows that functioning is better used to predict empowerment/self-efficacy rather than as a moderator of empowerment/self-efficacy ($F=11.321$, $R^2=.348$, $p<.01$). Although, FTM dosage is not significant in this model, the direction of the relationship is still negative and near significant ($\beta= -.269$, $p=.09$).

Table 4.11

Effect of psychosocial functioning and FTM dosage on family empowerment/self-efficacy

	Unstandardized Coefficients		Standardized Coefficients	t	p
	β	SE	β		
Constant	25.43	3.201		7.945	.000
Age	-.066	.114	-.046	-.580	.563
Sex	1.282	.759	.133	1.690	.094
Enrollment Time	.136	.065	.168	2.109	.037
Functioning	.366	.058	.501	6.264	.000
FTM Dosage	-.269	.160	-.137	-1.682	.096

Hypothesis 4

Hypothesis 4 stated that self-reported improvements in psychosocial functioning was positively correlated with clinician reported improvements in psychosocial functioning. Using each youth's current CANS assessment and the one that occurred six months prior, the five primary domains were calculated: caregiver strengths and needs, child strengths, life domain functioning, child risks behaviors, and child behavioral and emotional needs. Between the domains the strongest relationships are between child

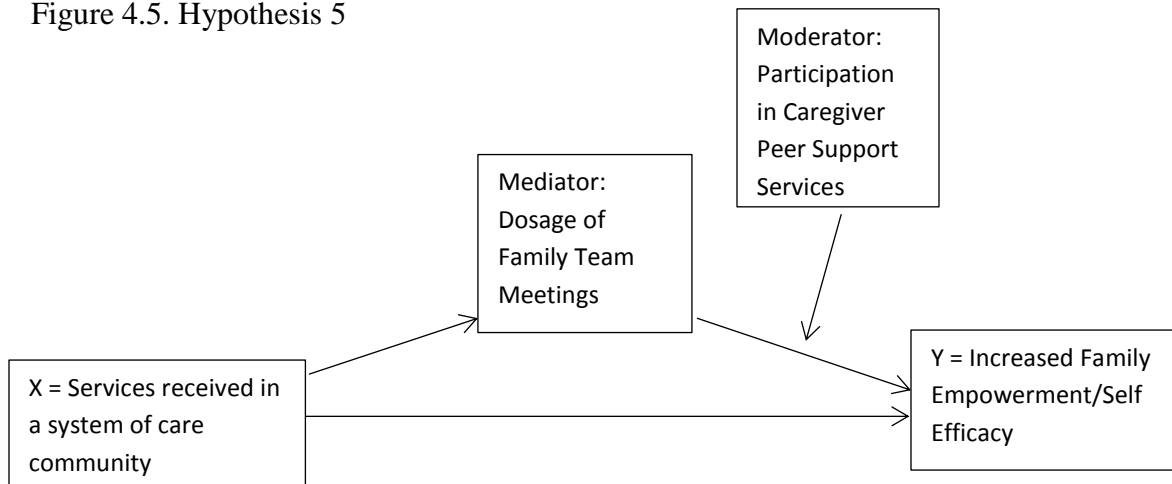
behavioral and emotional needs, child risk behaviors and life domain functioning. The greatest association is between the time 2 life functioning domain ($r=.261, p=.006$) and the time 2 child behavioral and emotional needs domain ($r=.216, p=.022$).

Although three out of five domains showed statistically significant change based on t tests, child strengths, child risk behaviors, and child behavioral and emotional needs, very few relationships were found between the CANS and FES. Two correlations were significant. There was a positive relationship between the time 1 child strengths and the sub-scale ($r=.235, p=.031$), a negative relationship between time 1 caregiver scale and the sub-scale ($r=-.201, p=.034$). This shows that there is little support for hypothesis 4. Based on the preliminary findings leading into the multivariate analyses, the decision was made to not use the CANS assessment in the multivariate analysis due to the lack of relationship between the CANS scores and the other variables.

Hypothesis 5

Hypothesis 5 stated: the effect of participation in FTM was moderated by involvement in the caregiver peer support services. The mediation effect of a greater number of FTMs will increase empowerment/self-efficacy on the FES for those who are involved in caregiver peer support services.

Figure 4.5. Hypothesis 5



Only a small percentage of caregivers were actively working with a peer provider (11.6%), but it was found that there was a moderately strong relationship between caregiver peer support and FTM dosage (*spearman rho* = .310, $p=.001$) and program enrollment (*spearman rho* = .410, $p<.001$). Hypothesis 5 is very similar to hypothesis 2 where the goal is to see how the participation in a particular program or system affects the outcomes, yet in this analysis participation in parent peer support services takes the place of child welfare involvement. The other difference is that it is hypothesized that the involvement in peer support will have the positive relationship of involvement in the child welfare system.

Direct effects.

The direct effects for this model are the same as hypothesis 1, the relationship between program enrollment and FTM dosage, and program enrollment and family empowerment/self-efficacy ($F=87.8801$, $R^2=.7666$, $p<.01$). Abovementioned the direct effects are not of interest.

Indirect effects.

The addition of caregiver peer support services into the model, changed it from a simple mediator model into a conditional process model and reduced the effect of the mediator onto the dependent variable and produced a non-significant result ($F=1.9988$, $R^2=.1186$, $p=.0622$). The mediator of FTM dosage ($\beta=-.7725$, $p=.0443$) was still significant, while the other variables of caregiver peer support ($\beta=-.2639$, $p=.9252$), age ($\beta=-.0976$, $p=.4799$), sex ($\beta=.1507$, $p=.1573$), and enrollment time ($\beta=.1507$, $p=.0535$), were not significant. Additionally, the interaction between FTM and caregiver peer

support services was not significant ($\beta=.2646, p=.6497$). This finding suggests there is no support for caregiver peer support as a moderator.

Table 4.12

Hypothesis 5: Mediator/Moderator relationship of FTM dosage and caregiver peer support on family empowerment/self-efficacy

	Mediator (FTM Dosage)				Y (Empowerment/ Self-efficacy)			
	β	SE	t	p	β	SE	t	p
X (Program Enrollment)	4.8442	.2658	18.2267	.0000	1.6341	2.1655	.7546	.4522
M (FTM Dosage)	-----	-----	-----	-----	-.7725	.3794	-2.0359	.0443
V (Caregiver Peer Support)	-----	-----	-----	-----	-.2639	2.8050	-.0941	.9252
FTM Dosage x Caregiver Peer Support	-----	-----	-----	-----	.2646	.5810	.4554	.6497
Control (Age)	-.0059	.0346	-.1696	.8656	-.0976	.1376	-.7091	.4799
Control (Sex)	-.2116	.2299	-.9207	.3593	1.2949	.9090	1.4245	.1573
Control (Enrollment Time)	-.0012	.0196	-.0619	.9508	.1507	.0772	1.9533	.0535
Constant	1.0528	.4134	2.5469	.0123	43.8307	1.667	26.3473	.0000
		R ² =.7666				R ² =.1186		
		F=87.8801, p <.0000				F=1.9988, p=.0622		

Summary of Findings

There was not support for hypothesis 2, 4 and 5. Hypothesis 2 predicted the effect of participation in FTM was moderated by involvement in the child welfare system, hypothesis 4 stated self-reported improvements in psychosocial functioning was positively correlated with clinician reported improvements in psychosocial functioning, and hypothesis 5 indicated differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by participation in parent peer support services.

The findings suggest there is only support for FTM dosage as a mediator and that psychosocial functioning should be used in a separate model as a predictor of increased family empowerment/self-efficacy. Hypothesis 1 stated that differences between scores

of empowerment/self-efficacy on the FES by program enrollment was mediated by the dosage of FTMs provided to the family. Hypothesis 3 stated that the differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by improvements in psychosocial functioning. It was hypothesized this would be a positive relationship between scores of empowerment/self-efficacy on the FES and dosage of FTMs. The negative relationship of FTM dosage and increased family empowerment/self-efficacy suggests that there is a different explanation for the rise in family empowerment/self-efficacy than what was proposed in the hypothesis, while the positive relationship between functioning suggests support for the hypothesis.

CHAPTER 5: DISCUSSION

The questions investigated and hypotheses tested in this study concerned the way youth and families experience family empowerment/self-efficacy within programs that exist in a formalized system of care community. While there have been many studies on children served within a wraparound program (which are regularly implemented within a system of care), there has been very little attention paid to looking at youth served beyond those who are enrolled in wraparound. Additionally, while there is much discussion about promoting system of care values there has been very little emphasis on unpacking the values and principles promoted by system of care to see what is actually occurring in real practice. This research was conducted in order to obtain a clearer picture of the impact of value-driven practices and treatment philosophies and truly measure these efforts. Clearly the idea of empowerment/self-efficacy is only a small piece of the puzzle since it only one of the values trumpeted by system of care, and there is much more that can be assessed within that value alone. This is of importance to social work as the Code of Ethics continues to promote values and greater influx of value-driven practices and treatment philosophies (i.e., recovery, trauma-informed) within the settings social workers practice.

Mental Health Program Involvement

Experience of Wraparound Enrollment

Even though the concept of system of care is not synonymous with only one mental health treatment modality, much of the emphasis in the past focused only on outcomes of youth served through wraparound. The emphasis on wraparound paints an incomplete picture by only focusing on a small percentage of youth in a community

instead of looking at the broader influence of system of care on treatment modalities within a community. By utilizing mediators and moderators, this study sought to find differences between the experiences of youth and families in relation to empowerment/self-efficacy serviced within two different programs under the umbrella of a system of care. It was hypothesized the different experiences would not be due to the actual program enrollment but instead to the other variables involved in the youth's situation. This was supported by the finding that showed no difference between mental health program enrollment (wraparound or home-based services) and experience of empowerment/self-efficacy.

While data were only assessed at the individual child and family level, this finding is interesting because it suggests that program enrollment does not make a difference in the way families experience empowerment/self-efficacy in treatment decisions. Though there is no gold standard for currently assessing the adoption of system of care in a community, or system level data used in this study, it was shown in the methodology section that data collected in the community since 2010 supports the idea that community stakeholders embrace the system of care values. Further, starting in the 2015 fiscal year, local system of care initiatives were fully supported by a formalized blended funding process. This is a key indicator of community support at the system level, by multiple administrators choosing to put "their money where their mouth is," and shows there is concrete support of the system of care philosophical approach to children's services in a community.

Perhaps the fact the community has formally embraced the system of care approach is endorsed by the finding that program enrollment does not make a difference

in the way that families experience empowerment/self-efficacy in treatment decisions. A picture emerges revealing that values (specifically valuing family voice) have diffused across multiple layers in the community (front line staff, leadership, different agencies). By layering the idea that the community has formally embraced the system of care approach, with the finding that program enrollment does not make a difference in the way families experience empowerment/self-efficacy in treatment decisions, a picture begins to be painted to show that the values (specifically valuing family voice) have diffused across multiple layers in the community (front line staff, leadership, different agencies). This means it does not matter in what program a youth is enrolled to experience the system of care philosophy in treatment. If this truly is the case, this is an important finding because it begins to show how a community has expanded beyond wraparound to promote system of care values in the treatment setting. This finding was revisited once the rest of the findings are discussed and all of the pieces can be explored as a whole.

Mediator

Role of Family Team Meeting Dosage

As previously discussed, it was hypothesized that it would not be program enrollment that would make a difference in the experience of empowerment/self-efficacy in treatment decisions but instead the variability in family experience would be due to other factors. The hypothesis stated that differences between scores of empowerment/self-efficacy on the FES by program enrollment was mediated by the dosage of FTMs provided to the family. It was hypothesized this would be a positive relationship between scores of empowerment/self-efficacy on the FES and dosage of FTMs. The findings clearly show there is a relationship between FTM dosage and

empowerment/self-efficacy in treatment decisions; however, it is a negative relationship instead of the positive relationship as hypothesized. Additionally, it is important to note when FTM dosage is treated as a mediator, the control variable of enrollment time expresses a positive, significant relationship.

The descriptive information related to FTM dosage showed there is a specific pattern to dosage for youth enrolled in wraparound compared to those only enrolled in home-based services. The majority of youth in home-based services did not receive a FTM over the six month period and on the latter end, the bulk of youth enrolled in wraparound received the full dose of six FTM during the six months. However almost one-third (N=29) of the youth received anywhere from two to five FTMs during the six month period. These youth were mixed between the two enrollment groups. This showed that within this sample, FTM was never used as a one-time intervention, but was used at least twice with all youth who were exposed. The bivariate analysis exhibited there is a clear positive relationship between increased empowerment/self-efficacy and functioning. By taking all of these results together with the negative relationship caused by the mediator, FTM dosage seems to increase as functioning decreases. It appears that youth and family experiencing the most difficulty report feeling less empowered. While FTM is automatically provided for youth enrolled in wraparound, the results show that FTM was used for home-based youth who appeared to be experiencing decreased functioning. However, when time of enrollment was considered, the longer a youth and family are enrolled, the more the youth's functioning improved and as did their caregiver's feelings of empowerment/self-efficacy.

After an extensive literature search it was determined that there is little to no related literature within mental health services research showing a negative relationship between FTM and empowerment/self-efficacy. For this reason, the findings of this study were compared to findings outside of mental health services research. Much of the work on self-efficacy has occurred within the field of industrial organizational psychology. Karasek (1979) proposed the demand-control model that states job strain results from the combination of low autonomy and control over the job and high workload and other work stressors. The original model suggested high decision latitude on the job will reduce the negative impact of demands which was consistent with the study hypothesis. This concept is similar to the hypothesis of this study that suggested having control in treatment decision making would lead to greater self-efficacy.

In a meta-analysis of demand-control studies, cross-sectional studies have shown years of inconsistent results and very few interactions (de Lange, Taris, Kompier, Houtman & Bongers, 2003). Although this comparison theory does not fully explain the finding of the effect of the negative relationship of FTM on empowerment/self-efficacy, it does suggest that the use of cross-sectional data to assess self-efficacy may lead to negative relationships. There is a possibility that findings would be different if data were obtained for the entire episode of care of the youth instead of a six month time frame.

A better way to understand the context of FTM on empowerment/self-efficacy would be to employ a multi-level model that considers individual youth and family characteristics, in addition to the social and contextual information of the treating clinician or/agency. This approach was utilized by Chaudhary (2014) to explore the demand-control model, and the analytical strategy produced much clearer results. This

idea is supported by Glisson's (2007) work on the organizational social context that continues to show how the context of the agency is linked to the individual outcomes of youth.

Moderators

Child Welfare Involvement

It was hypothesized that the mediator relationship of FTM dosage would be moderated by three different variables: child welfare involvement, family peer support involvement, and psychosocial functioning. It was hypothesized that the effect of participation in FTM was moderated by involvement in the child welfare system. The mediation effect of a greater number of FTMs will only increase the score of empowerment/self-efficacy on the FES for those who are not involved in the child welfare system. The findings did not support the addition of child welfare involvement as a moderator. While this is not the relationship that was hypothesized, it does support the idea that involvement of the child welfare system in the process is not negative. This may say something about a child welfare system within a community that espouses system of care values. Because of the approach encouraged by system of care (specifically the encouragement of family voice) workers may be reacting and working with families in an entirely new fashion leading families to not perceive the involvement as negative. This non-significant finding may actually be a positive finding because it suggests that involving child welfare in the treatment process is not detrimental. Based on this finding there does not appear to be support for child welfare involvement to be considered coercive power (French & Raven, 1959).

The only relationship found for the variable child welfare was a weak, positive correlation between it and functioning. This is a compelling finding because it suggests those involved in the child welfare system report better family functioning. It is unclear what could be the explanation for this relationship, without further information about the details of the child welfare involvement. The secondary data for the current study does not include information for length of time involved in the child welfare system, reason for child welfare involvement, or whether the caregiver who completed the FES is the birth parent or foster parent. This finding is supported by a sub-study based on data from 28 different CMHI grantee communities between 2002 - 2004. That study found that children age six or younger who were involved with child welfare, showed greater improvements in functioning than those who were not involved with child welfare. The authors hypothesized this finding was due to the fact that child welfare involved families received more services (Gyamfi et al., 2010). Further exploration is needed to see if there is something specific to system of care that causes a greater balance of power between the family and the provider.

Caregiver Peer Support Involvement

The second moderator to be explored was family peer support. It was hypothesized the effect of participation in FTM would be moderated by involvement in the caregiver peer support services. The mediation effect of a greater number of FTMs will increase more on empowerment/self-efficacy on the FES for those who are involved in caregiver peer support services. While there was a moderately strong bivariate relationship between FTM dosage and caregiver peer support involvement, this may be due to the fact that caregiver peer support is a scarce resource as a result of a low number

of caregiver peer support staff. Therefore, this may mean that all the correlation demonstrates is that higher need families are offered caregiver peer support. Once caregiver peer support involvement was treated as a moderator, the multivariate analysis showed no support for caregiver peer support as a moderator based on this sample. It could be that there is really no relationship or it could just mean the number of families in the sample who actually had caregiver peer support was too small to show any effect. As stated in the literature review the evidence base for caregiver peer support is significantly more limited (Hoagwood et al., 2010). While some preliminary studies have indicated that caregiver support services have demonstrated improved outcomes for children and families, further research is needed to see if positive findings continue to be shown (Hoagwood, 2005).

Role of Psychosocial Functioning

Psychosocial functioning was assessed as a part of two different hypotheses. First, it was hypothesized that self-reported improvements in psychosocial functioning would be positively correlated with clinician reported improvements in psychosocial functioning. Secondly, it was hypothesized that differences between scores of empowerment/self-efficacy on the FES by program enrollment was moderated by improvements in psychosocial functioning. While not all of these analyses produced significant results, there were some thought provoking implications.

As a full sample, improvements were shown by the CANS for three of the five domains (child strengths, child risk behaviors, and child behavioral and emotional needs), and there were only two relationships found between the family sub-domain of the FES (that measures self-perceived functioning) and any of the domains on the CANS

(strengths time 1 and caregiver time 1). Two correlations were significant, a positive relationship between the time 1 child strengths and the family sub-scale and a negative relationship between time 1 caregiver scale and the family sub-scale. Additionally, there was no relationship between any of the CANS domains and the services sub-scale of the FES (that measures empowerment/self-efficacy). This shows there is little support for the hypothesis that stated self-reported improvements in psychosocial functioning would be positively correlated with clinician reported improvements in psychosocial functioning. Self-reported measure compared to clinician reported improvement may often have some dissonance. A client might not actually realize positive changes that the clinician sees or vice versa.

Although no relationships were found between the CANS and FES, there was a clear positive relationship between FES sub-domains. As the caregiver's perception of functioning (family sub-domain) increased so did their perception of increased empowerment/self-efficacy (services sub-domain). Whereas this relationship was initially conceptualized as a moderator relationship or conditional process relationship where increased functioning would moderate the mediator relationship of FTM dosage, this appeared to not be the case. Instead, after the conditional process analysis showed only a statistically significant relationship between functioning and empowerment/self-efficacy, a new analysis was conducted using functioning to predict a family's perceived empowerment/self-efficacy. This OLS regression model showed a strong positive relationship between the two variables and that explains a much greater amount ($R^2=.31$) of the variance in the model than any of the other hypothesized. Furthermore, within this model, length of enrollment is not significant, supporting the idea that if a caregiver

perceives family functioning is improving (no matter the period of time elapsed), they also feel more empowered. Similar to other findings, the literature in this area is sparse. However a recently published article utilizing the Team Observation Measure (measures adherence of the FTMs to the wraparound process) showed that for child welfare involved youth who were served within counties with a system of care initiative, FTMs were conducted in a more collaborative way that provided equal decision making power to the family (Snyder, Lawrence, & Dodge, 2012).

Findings Summary

Findings suggest there is only support for FTM dosage as a mediator and that psychosocial functioning should be used in a separate model as a predictor of increased family empowerment/self-efficacy. Family empowerment/self-efficacy appeared to decrease with increased FTM dosage, yet increase as a result of length of enrollment. These relationships suggest that there might be a different explanation for the rise in family empowerment/self-efficacy than what was proposed in the initial hypothesis. However, the positive relationship between functioning and empowerment/self-efficacy suggest support for this hypothesis. These findings taken together both provide answers to some questions while also highlighting other areas for inquiry. The clearest relationship appears to be the relationship between the perception of family functioning and perceived empowerment/self-efficacy. These findings suggest that as the child's functioning improves, so does a caregiver's perception of their personal empowerment/self-efficacy. This finding is supported by past research that has shown a positive relationship between psychosocial functioning and empowerment/self-efficacy (Graves, 2005; Graves & Shelton, 2007; Resendez et al., 2000). Based on this study's

finding and the support from other studies, there is a need for more investigation into the effect of psychosocial functioning on empowerment/self-efficacy. Much of past research has been exploratory or descriptive in nature, but in order to truly understand the relationship more explanatory studies are needed (Graves, 2005; Graves & Shelton, 2007; Resendez et al., 2000).

There is less of a definite explanation for what the negative relationship of FTM dosage and increased family empowerment/self-efficacy alongside a positive relationship between length of enrollment and family empowerment/self-efficacy means. What is most clear is FTM dosage is related to severity of needs which is in line with the approach of the focus agency to offer FTM to any youth at high risk or increased risk (no matter if they are actually enrolled in wraparound). This is supported by the negative correlation between the functioning measure on the FES and FTM dosage and also by the positive correlations between four of the CANS domains (child risk behaviors, caregiver strengths and needs, child behavior and emotional needs, and life functioning). By considering the findings together, there appears to be an effect of time predicting if families will report more perceived severity and reduced empowerment/self-efficacy. In the follow-up OLS regression analysis of hypothesis 3, it showed that while psychosocial functioning did not perform as a moderator, when treated as a direct effect predictor it produced a significant positive effect on empowerment/self-efficacy, as did time on empowerment/self-efficacy. Although FTM dosage was not significant in this model, the relationship was still negative and narrowly crossed into non-significance ($p=.09$). Based on the additional finding that youth who received at least one FTM were more likely to have gains on the CANS analysis, the FTM appears to play a bigger role in

psychosocial functioning improvements for this sample than as a mediator for empowerment/self-efficacy.

Practical Implications

The findings suggest that while a concrete way to work with staff to promote family voice has not been established through this study, it does appear that the idea of FTM should be considered as an intervention outside of youth wraparound enrollment. This is substantiated by the finding that showed youth who received at least one formal FTM during the six month period had the most improvements on the CANS. To be clear, this does not mean to completely throw out wraparound as a full intervention, but instead consider the use of FTM to mitigate increased severity or needs on a case by case basis for youth who are not receiving the full intervention. This issue with the current approach of implementing wraparound or elements from wraparound (i.e., FTM) to only a small percentage of youth in a community may be causing coordination to be an isolated approach to services. This means that better coordination of services should be the goal for the entire spectrum of child serving services, not just the most severe.

Although a child with substantial mental health needs may receive mental health, child welfare, and special education services, better coordination between prevention, outreach, and screening services may lead to a reduction in the number of youth requiring high need, expensive services. Research documenting of the optimal clinical dosage of an intervention (i.e. FTM) is specifically important in the managed care environment most states operate. State governments are continually trying to obtain the “biggest bang for their buck” and devising ways to use services in the most cost effective way, will extend the service to a greater number of youth.

Future Research Directions

The research conducted provides both empirical and theoretical research direction. This study may be considered as an initial exploratory effort to employ more theoretically oriented analyses to accommodate for the possible effect of philosophical or values-based approaches to treatment. The inferences presented by the findings from this study suggest there is still much to be done to establish a clear way to measure how philosophical orientations like system of care or recovery can be tied to treatment outcomes.

Further Exploration into Care Coordination and Family Team Meeting

Research on the use of care coordination is not independent to wraparound. Most recently, care coordination has been promoted as a part of integrated healthcare (Center for Integrated Health Solutions, 2012). As the spread of care coordination practices expand among mental health and other service providers, it is important for future research to identify what elements of care coordination are helpful so that researchers can move the practice forward without siloing themselves within a specific EBP or EST. Grounded in the idea, Chorpita and Daleiden (2014) continue to explore, further exploration is needed to look at the use of FTM as an intervention outside of wraparound. Chorpita and Daleiden (2014) support researching common elements of EBPs that consistently lead to positive outcomes instead of continuing to develop full EBPs that are only appropriate for a small portion of society, meaning there may be benefit to expanding the use of FTM outside of wraparound as was shown in this study. The idea of determining the best intervention elements for each child based on needs was expanded upon in a recent article by Bruns et al. (2014) that explored use of a knowledge

management system that suggested relevant EBPs or other research-based approaches to better met the needs of youth and families. Bruns et al. (2014) suggest that by focusing on thoughtful implementation of services for each family, a care coordination approach that consistently applies common factors of effective service holds the potential to improve outcomes for youths experiencing even the most complex and costly problems.

Concrete Ways to Promote System of Care Values

The greatest struggle with concepts like system of care, recovery, and trauma-informed care are the lack of concrete ways to teach students and new staff members how to frame their practice. Whereas there are legitimate reasons these concepts should be left open to interpretation, they will only be successfully implemented if developers devise ways to operationalize each concept in a way that is actually approachable to real world clinicians. An important step in establishing the impact of system of care values within an agency or community will be to study specifically how the values were implemented and communicated in a community, and then to track the subsequent changes in an agency or community overtime as a result. In order for communities to fully actualize system of care beyond the program level (i.e., wraparound), they must learn what is currently effective about the practice and extrapolate those approaches to other program and system coordination effects.

Longitudinal and Multi-Level Modeling

Aforementioned, in comparison to other studies of self-efficacy, it is important for further research to use data collection strategies other than cross-sectional data in order to produce more reliable results (de Lange et al., 2003). Additionally, values-driven practices will continue to be conceptually unclear concepts unless analytical strategies are

developed to capture their impact on every day practice. For system of care to be successful in spreading its message, further research needs to be done in tandem with expansion of service delivery. This means as future research is conceptualized, researchers must think beyond one level of measurement (i.e., the child) and devise ways to measure changes that are occurring at multiple levels within the community, such as using multi-level analytical strategies to look at youth outcome, provider beliefs about the practice, and agency level implementation. Data collected must go beyond focusing on child outcomes, but examine how provider beliefs and agency practices around system of care values help or hinder the overall outcome.

Study Limitations

Conditional Process Analysis

Although conditional process analysis (CPA) provides a way to analyze a theoretical model, there are also limitations to this approach. The primary issues with using CPA are endogeneity and simultaneity (Tomarken & Waller, 2005). The problem of endogeneity occurs when the independent variable is correlated with the error term in a regression model, meaning the problem of endogeneity may come from an uncontrolled confounding variable. Secondly, the issue of simultaneity is a temporal concern. As was shown in the findings of this study there was an effect length of enrollment time. In order to obtain a better understanding of the actual effect of FTM and psychosocial functioning improvements on empowerment/self-efficacy, a time series analysis must be completed that assesses a longer period of time than six months. Additionally the use of a time-series analysis would better deal with the problem of endogeneity by reducing the threat to internal validity.

Agency-based Sample and Sample Size

There is an innate threat to external validity through the use of agency-based samples and additionally the typical occurrence of a small sample size. Another negative of the small size was the inability to conduct a reliable confirmatory factor analysis to see if the original factor structure was intact. Despite the fact that it is difficult to generalize to the general population through the use of an agency-based sample, there is a need to study more agency-based samples to assess how services are actually occurring in the real world. There will always be a need for the gold standard of randomized control trials, but without health services research of “usual” care, researchers will never be able to establish an understanding of the current state of mental health services.

Operationalization Using a Secondary Data Source

In using secondary data sources for multivariate analysis, limitations are imposed by the method in which the variables were initially operationalized. Much of the data utilized for this study was initially collected for internal tracking, billing, and quality improvement reasons. For that reason, there may be a lack of precision behind the original data collection. However, due to the ethical, financial, and methodology challenges, it can be incredibly difficult to study individuals in vulnerable sectors of society, without the use of secondary data. Without the ability to mine data collected for other purposes, researchers would have a reduced ability to move ahead in health services research. Whereas there will always be challenges in relation to operationalization, there are current opportunities to improve the ability of agencies to better collect precise data through the use of electronic health systems.

Implications for Social Work Research, Education, Policy and Practice

While the framing of this study was to “unpack” the system of care value of family voice, the findings do not support any clear cut explanation for how family voice is promoted or communicated to families. Based on the findings, it appears as if families just feel more empowered as their child's functioning improves. If this is the case, there may be no real mechanism that actually leads to a caregiver feeling more empowered; instead, it may mean when the child is doing better the caregiver feels better overall. If so, then how can one ever establish and measure if an agency is promoting a specific value such as family voice, if there is no real process for how family voice is promoted or communicated to families? This reflects why the promotion and implementation of value based practice is so difficult. Without a clear vision of how to promote and implement a specific idea, how will one ever truly measure successful implementation? Values reflect an individual's “experiences, context, social roles, politics, and religious beliefs” and continuously change over time (Bryan, 2006, p. 9). This is why values are apt for individuals, but their application to a profession or practice problematic. Because values are specific to a situation and are subjective, it is unclear if they can ever be implemented in a systematic way (Gert et al., 2006).

This brings to question how difficult it can be to spread a treatment philosophy if more explicit approaches struggle to be adopted. In recent years, the field of mental health has become increasingly focused on the idea of evidence-based and promising practices. This shift has been focused on moving from the idea of building “practice knowledge” to knowledge based on empirical studies. This has led to a conflict between the research-to-practice transfer where empirical knowledge is to be implemented within routine practice. There is continual conversation at the academic, policy, and

professional oversight levels to devise the best plan to disseminate information to the masses. The primary approach is the use of practice guidelines and manuals to relay information, but repeated reports have shown that there continues to be poor adoption of these practices (Arnd-Caddigan, 2012; McHugh & Barlow, 2012; President's New Freedom Commission on Mental Health, 2003). One of the primary challenges of evidence-based practice and promising practices is the conflict between the inflexibility of treatment manuals, unrealistic nature of randomized controlled trials, and the lack of attention to therapeutic rapport (McHugh & Barlow, 2012).

Evidence-based practices have been defined in different ways. Gambrill (2003) saw EBP as more of an orienting philosophy toward practice and discouraged strict “orthopraxy” that articulates specific techniques; although, using empirically supported treatments is endorsed by this process as long as they are specifically tailored to the client's needs (Drake, Merrerns, & Lynde, 2005; Messer, 2004). Arnd-Caddigan (2012) suggests that EBP can have multiple meanings due to moving between the conceptual to practice level. In the long list of evidence-based and promising practices recorded in directories such as the NREPP, many provide the adopter with explicit directions for how to carry out the approach. On the other hand, there are a handful of mental health programs that promote the power of individualized services (e.g., assertive community treatment (ACT) and wraparound) that are based on one or a mix of the following philosophies: recovery, strengths perspective, or system of care (Bruns et al., 2005; Drake, Merrerns, & Lynde, 2005; Levin et al., 2010; Rapp & Goscha, 2012; Stein et al., 1975; Teague, Bond, & Drake, 1998).

All three philosophies have been criticized for lacking specification, but have common vision of self-determination and individualization. ACT has a much grander tenure than wraparound due to the later emphasis on children's services, but both have a similar history of difficulty in the promotion of dissemination and fidelity. At this point, wraparound has followed the example set by ACT by developing a fidelity measure and operationalizing important elements within a flexible design (Bruns, Burchard, Suter, & Force, 2004; Teague, Bond, & Drake, 1998). System of care, which is even more loosely defined as philosophy rather than a program, can be expected to be even more difficult to disseminate than even wraparound. Arnd-Caddigan (2012) found that therapist treatment approaches were more consistent with their personal beliefs and values than with a specific EBP. In turn, if clinicians accept the EBP promoted by agency leadership, they were more likely to implement it with greater fidelity. If that is the case for EBP with specific techniques, ideas like recovery and system of care that are driven by values will not be diffused if clinicians do not buy into the guiding principles.

Even though attempts to measure system of care values in practice persist to return fuzzy or non-conclusive results, there continues to be grant funding directed at implementing system of care values. It is not the author's intent to state that funding should be dissolved because impact beyond the individual level is yet to be repeatedly demonstrated. Instead, there needs to be a systematic shift to focus on how to measure the implementation of system of care values and to document the impact at multiple levels of practice. There is a genuine need to continue to shift social work practice from its paternal origins to a practice that truly understands what it means to empower the persons that one serves. For this reason, concepts like system of care and other similar concepts

such as recovery need to continue to be expanded, taught in the classroom, and defined in a measureable way. Mental health services researchers need to think beyond traditional ways of measuring change and impact community to adapt the current landscape of practice that includes many fuzzy concepts like system of care. To truly cause social change, social work needs to go beyond the individual level. System of care impacts future youth and families, yet direct services like wraparound are only about a single client in the moment. By dealing with systemic issues, social work practice is able to make impacts both horizontally and vertically.

REFERENCES

- Anderson, J. A., Howland, A.A., & Cohen, D.A. (unpublished). Implementation of a system of care in a rural context.
- Anderson, J. A., Wright, E. R., Kooreman, H. E., Mohr, W. K., & Russell, L. (2003). The Dawn Project: A model for responding to needs of young people with emotional and behavioral disabilities and their families. *Community Mental Health Journal*, 39, 63-74.
- Anderson, R. L., & Estle, G. (2001). Predicting level of mental health care among children. *Journal of Rural Health*, 17, 259-265.
- Anderson, R. L., Lyons, J. S., Giles, D. M., Price, J. A., & Estle, G. (2003). Reliability of the Child and Adolescent Needs and Strengths-Mental Health (CANS-MH) Scale. *Journal of Child and Family Studies*, 12(3), 279-289.
- Anderson, R. L., Lyons, J. S., Price, D. M., & Estes, G. (2002). Examining the reliability of the Child and Adolescent Needs and Strengths-Mental Health (CANS-MH) Scale from two perspectives: A comparison of clinician and researcher ratings. *Journal of Child and Family Studies*, 12, 279-289.
- Angold, A., Costello, J. Burns, B.J., Erkanli, A., & Farmer, E. M. Z. (2002). Effectiveness of nonresidential speciality mental health services for children and adolescents in the "real world." *Journal of American Academy of Child and Adolescent Psychiatry*, 39(2), 154-160.
- Arnd-Caddigan, M. (2012). Clinical social workers' response to a state policy on the use of evidence-based practice: How attitudes, behaviors, and competing values affect actual practice. *Smith College Studies in Social Work*, 82(1), 19-38.

- Behar, L. B. (2004). Using litigation to improve child mental health services: Promises and pitfalls. *Administration and Policy in Mental Health, 30*(3),199-218.
- Berner, E. (2007). *Clinical decision support systems*. New York, NY: Springer.
- Bickman, L. (1996). A continuum of care: More is not always better. *American Psychologist, 51*, 689-701.
- Bickman, L., Andrade, A. R., & Lambert E. W. (2002). Dose response in child and adolescent mental health services. *Mental Health Services Research, 4*, 57-70.
- Bickman, L., Guthrie, P. R., Foster, E. M., & Lambert, E. M. (1995). *Evaluating managed mental health services: The Fort Bragg experiment*. New York, NY: Plenum Press.
- Bickman, L., Lambert, E. W., Summerfelt, W. T., & Heflinger, C. A. (1996). Rejoinder to questions about the Fort Bragg evaluation. *Journal of Child and Family Studies, 5*(2), 197-202.
- Bickman, L., Rosof, J., Salzer, M. S., Summerfelt, W. T., Nozer, K., Wilson, S. J., & Karver, M. S. (2000). What information do clinicians value for monitoring adolescent client progress and outcome? *Professional Psychology: Research and Practice, 31*, 70-74.
- Bickman, L., Smith, C. M., Lambert, E. W., & Andrade, A. W. (2003). Evaluation of a congressionally mandated wraparound demonstration. *Journal of Child and Family Studies, 12*, 135-156.
- Boothroyd, R. A., Greenbaum, P. E., Wang, W., Kutash, K., & Friedman, R. M. (2011). Development of a measure to assess the implementation of a children's system of

- care: The System of Care Implementation Survey (SOCIS). *The Journal of Behavioral Health Services & Research*, 38(3), 288-302.
- Bruns, E. J., Burchard, J. D., Suter, J. C., Leverentz-Brady, K., & Force, M. M. (2004). Assessing fidelity to a community-based treatment for youth: The Wraparound Fidelity Index. *Journal of Emotional and Behavioral Disorders*, 12(2), 79-89.
- Bruns, E. J., Rast, J., Walker, J. S., Bosworth, J., & Peterson, C. (2006). Spreadsheets, service providers, and the statehouse: Using data and the wraparound process to reform systems for children and families. *American Journal of Community Psychology*, 38, 201-212.
- Bruns, E. J., & Suter, J. (2010). Summary of wraparound evidence base: April 2010 update. In E. J. Bruns & J. S. Walker (Eds.), *Resource guide to wraparound*. Portland, OR: National Wraparound Initiative, Research and Training Center for Family Support and Children's Mental Health.
- Bruns, E. J., & Walker, J. S. (2010). Defining practice: Flexibility, legitimacy, and the nature of systems. *Evaluation and Program Practice*, 33, 45-48.
- Bruns, E. J., Walker, J. S., Adams, J., Miles, P., Osher, T. W., Rast, J., (2005). *Ten principles of the wraparound process*. Portland, OR: Portland State University, Research and Training Center on Family Supports and Children's Mental Health, National Wraparound Initiative.
- Bruns, E.J., Walker, J.S., Bernstein, A., Daleiden, Pullman, M., & Chorpita, B.F. (2014). Family voice with informed choice: Coordinating wraparound with research-based treatment for children and adolescents. *Journal of Clinical Child & Adolescent Psychology*, 0(0), 1-14.

- Bryan, V. (2006). Moving from professionally specific ideals to the common morality: Essential context in social work ethics education. *Journal of Teaching in Social Work, 26*(3/4), 1-17.
- Burchard, J. D. (1996). Evaluation of the Fort Bragg managed care experiment. *Journal of Child and Family Studies, 5*(2), 173-176.
- Burchard, J. D., Burchard, S. N., Sewell, R., & VanDenBerg, J. (1993). *One kid at a time: Evaluation case studies of the Alaska Youth Demonstration Project*. Washington, D.C.: Georgetown University Child Development Center, CASSP Technical Assistance Center.
- Carney, M. M., & Buttel, F. (2003). Reducing juvenile recidivism: Evaluating the wraparound services model. *Research on Social Work Practice, 13*, 551-568.
- Center for Integrated Health Solutions. (May 2012). *Behavioral health homes for people with mental health and substance use conditions*. Washington D.C.: SAMHSA-HRSA .
- Chaudhary, R. (2014). A multilevel investigation of the factors influencing work engagement. *The Psychologist-Manager Journal, 17*(2), 128-158.
- Chorpita, B. F., & Daleiden, E. L. (2014). Structuring the collaboration of science and service in pursuit of a shared vision. *Journal of Clinical Child and Adolescent Psychology, 43*, 323-338.
- Chorpita, B. F., & Donkervoet, C. (2005). Implementation of the Felix consent decree in Hawaii: Impact of policy and practice development efforts on service delivery. In R. G. Steele, & M. C. Roberts (Eds.), *Handbook of Mental Health Services for Children, Adolescents, and Families* (pp. 317-332). New York, NY: Springer.

- Clark, H. B., & Clarke, R. T. (1996). Research on the wraparound process and individualized services for children with multi-system needs. *Journal of Child and Family Studies*, 5, 1-5.
- Cohen, D. A. (2012). *Evaluation brief: One Community One Family provider survey: Comparison of March 2010 to March 2012*. Submitted to One Community One Family Governance Board.
- Cohen, D. A. & Anderson, J. A. (2014) *Evaluation brief: One Community One Family provider survey over time: Comparison of 2010, 2012, and 2014*. Submitted to One Community One Family Governance Board.
- Cornett, S. M. (2011). *Home-based services for high risk youth*. Kingston, N.J.: Civic Research Institute.
- Daleiden, E. L., Chorpita, B. F., Donkervoet, C., Arensdorf, A. M., & Brogan, M. (2006). Getting better at getting them better: Health outcomes with evidence based-practice within a system of care. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(6), 749-756.
- Deegan, P. E. (1988). Recovery: The lived experience of rehabilitation. *Psychiatric Rehabilitation Journal*, 9(40),11-19.
- Deegan, P. E. (1992). The independent living movement and people with psychiatric disabilities: Taking control back over our own lives. *Psychiatric Rehabilitation Journal*, 15, 3-19.
- Deegan, P. E. (1993). Recovering our sense of value after being labeled mentally ill. *Journal of Psychosocial Nursing and Mental Health Services*, 31(4), 7-11.

- Deegan, P. E. (2004). Rethinking rehabilitation: Freedom. *Study of Current Rehabilitation, 12*, 5-10.
- Dennis, K. W., & Lourie, I. S. (2006). *Everything is normal until proven otherwise*. Washington, D.C.: Child Welfare League of America.
- Drake, R. E., Murrer, M. R., & Lynde, D. W. (2005). *Evidence-based mental health practice*. New York, NY: W. W. Norton.
- Evans, M. E., Armstrong, M. I., & Kuppinger, A. D. (1996). Family-centered intensive case management: A step toward understanding individualized care. *Journal of Child and Families Studies, 5*, 55-65.
- Farkas, M., Gagne, C., Anthony, W., & Chamberlin, J. (2005). Implementing recovery oriented evidence based programs: Identifying the critical dimensions. *Community Mental Health Journal, 41*(2), 141-158.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149-1160.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).
- French, J. P., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power*. Ann Arbor, Michigan: Institute for Social Research.
- Friedman, R. M. (1996). The Fort Bragg study: What can we conclude? *Journal of Child and Family Studies, 5*(2), 161-168.

- Friesen, B. J., Koroloff, N. M., Walker, J. S., & Briggs, H. E. (2011). Family and youth voices in system of care: Evolution of influence. *Best Practices in Mental Health*, 7(1), 1-25.
- Gambrill, E. (2003). Evidence-based practice: Sea change or emperor's new clothes? *Journal of Social Work Education*, 39(1), 3-23.
- Gert, B., Culver, C., & Clouser, K. (2006). *Bioethics: A return to fundamentals* (2nd ed.). New York : Oxford University Press.
- Glisson, C. (2007). Assessing and changing organizational culture and climate for effective services. *Research on Social Work Practice*, 17(6), 736-747.
- Guarino, K., Soares, P., Konnath, K., Clervil, R., & Bassuk, E. (2009). *Trauma-informed organizational toolkit*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, and the Daniels Fund, The National Child Traumatic Stress Network, and the W.K. Kellogg Foundation.
- Gyamfi, P., Lichtenstein, C., Fluke, J., Xu., Y., Lee, S., & Fisher, S. (2010). The relationship between child welfare involvement and mental health outcomes of young children and their caregivers receiving services in system of care communities. *Journal of Emotional and Behavioral Disorders*, 20(4), 211-225.
- Hansen, N.B., Lambert, M. J., & Forman, E.M. (2002). The psychotherapy dose-response effect and its implications for treatment delivery services. *Clinical Psychology: Science and Practice*, 9, 329-343.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis* . New York, NY: Guilford Press.

- He, X. Z., Lyons, J. S., & Heinemann, A. W. (2004). Modeling crisis decision making for children in state custody. *General Hospital Psychiatry, 26*, 378-383.
- Heflinger, C. A., Bickman, L., Northrup, D., & Sonnichsen, S. (1997). A theory-driven intervention and evaluation to explore family caregiver empowerment. *Journal of Emotional and Behavioral Disorders, 5*, 184-191.
- Heflinger, C. A., Sonnichsen, S. E., & Brannan, A. M. (1996). Parent satisfaction with children's mental health services in a children's mental health managed care demonstration. *The Journal of Mental Health Administration, 23*(1), 69-79.
- Hernandez, M., & Hodges, S. (2003). Building upon the theory of change for system of care. *Journal of Emotional and Behavioral Disorders, 11*, 19-26.
- Hoagwood, K. (2005). Family-based services in children's mental health: A research review and synthesis. *Journal of Child Psychology and Psychiatry: Annual Research Review, 46*, 690-713.
- Hoagwood, K. E., Cavaleri, M. A., Olin, S. S., Burns, B. J., Slaton, E., Gruttadaro, D., & Hughes, R. (2010). Family support in children's mental health: A review and synthesis. *Clinical Child and Family Psychological Review, 13*, 1-45.
- Hodges, S., Ferreira, K., Israel, N., & Mazza, J. (2010). System of care, featherless bipeds, and the measure of all things. *Evaluation and Program Planning, 33*, 4-10.
- Howard, K. I., Kopta, S. M., Krause, M.S., & Orlinsky, D. E. (1986) The dose-effect relationship in psychotherapy [Special issue]. *American Psychologist, 41*(2), 159-164.

- Hyde, K. L., Burchard, J. D., & Woodworth, K. (1996). Wrapping services in an urban setting. *Journal of Child & Family Studies, 5*, 67-82.
- ICF Macro. (2011). *Children's Mental Health Initiative (CMHI): National evaluation of the comprehensive community mental health services for children and their families program*. Atlanta, GA: ICF Macro.
- Joint Commission on the Mental Health of Children. (1969). *Crisis in child mental health*. New York, NY: Harper & Row.
- Karasek, R. A. (1979). Job decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly, 24*(2), 285-308.
- Kingdon, D. W., & Ichinose, C. K. (1996). The Fort Bragg managed care experiment: What do the results mean for publically funded system of care? *Journal of Child and Family Studies, 5*(2), 191-195.
- Knitzer, J. (1982). *Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health services*. Washington DC: Children's Defense Fund.
- Kopta, S. M., Howard, K. I., Lowry, J. L., Beutler, L. E. (1994). Patterns of symptomatic recovery in psychology. *Journal of Consulting and Clinical Psychology, 62*(5), 1009-1016.
- Koren, P. E., DeChillo, N., & Friesen, B. J. (1992). Measuring empowerment in families whose children have emotional disabilities: A brief questionnaire. *Rehabilitation Psychology, 37*, 305-321.

- Kutash, K., Greenbaum, P. E., Wang, W., Boothroyd, R. A., & Friedman, R. M. (2011). Levels of system of care implementation: A national study. *Journal of Behavioral Health Services Research, 38*(3), 342-357.
- de Lange, A.H., Taris, T.W., Kompier, M.A. Houtman, I.L., & Bongers, P.M. (2003). The very best of the millennium: Longitudinal research and the demand-control-(support) model. *Journal of Occupational Health Psychology, 8*(4), 282-305.
- Levin, B. L., Hennessy, K. D., & Petrila, J. (2010). *Mental health services: A public health perspective*(3rd ed.). New York: Oxford University Press.
- Lipsky, M. (2010). *Street-level bureaucracy: Dilemmas of the individual in public services* (30th anniversary ed.). New York, NY: Russell Sage Foundation.
- Lyons, J. S. (2009). *Communitrics: A communication theory of measurement in human service settings*. New York, NY: Springer Science.
- Lyons, J. S., Cornett, S., & Walton, B. (2011). *Child and Adolescent Needs and Strengths (CANS) manual: Comprehensive multisystem assessment, birth to 5*. Ottawa, Canada: Praed Foundation.
- Lyons, J. S., & Walton, B. (2011). *Child and Adolescent Needs and Strengths (CANS) manual: Comprehensive multisystem assessment, children and youth 5 to 17*. Ottawa, Canada: Praed Foundation.
- Mariush, M. (. (2004). *The use of psychological testing for treatment planning and outcome assessment* (3rd ed., Vol. 2). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Matarese, M., Carpenter, M., Huffine, C., Lane, S., & Paulson, K. (2008). Partnerships with youth for youth-guided system of care. In B. A. Stroul, & G. M. Blau (Eds.),

- The system of care handbook: Transforming mental health services for children, youth, and families* (pp. 275-300). Baltimore, MD: Brookes.
- Mayberry, L.S., & Heflinger, C.A. (2013). How caregivers make meaning of child mental health problems: Toward understanding caregiver strain and help-seeking. *Families in Society*, 94 (2), 105-113.
- McHugh, R. K., & Barlow, D. H. (2012). *Dissemination and implementation of evidence-based psychological interventions*. New York, NY: Oxford University Press.
- McKay, M. M., & Bannon, W. (2004). Engaging families in child mental health services. *Child and Adolescent Psychiatric Clinics of North America*, 13, 905-921.
- Messer, S. B. (2004). Evidence-based practice: Beyond empirically supported treatments. *Professional Psychology: Research and Practice*, 35(6), 580-588.
- Miller, R. C., & Berman (1983). The efficacy of cognitive behavioral therapies: A quantitative review of the research evidence. *Psychological Bulletin*, 94, 17-34.
- Onken, S. J., Craig, C. M., Ridgeway, P., Ralph, R. O., & Cook, J. A. (2007). An analysis of the definitions and elements of recovery: A review of the literature. *Psychiatric Rehabilitation Journal*, 31, 9-22.
- Osher, T. W., & Osher, D. M. (2002). The paradigm shift to true collaboration with families. *Journal of Child and Families Studies*, 11(1), 47-60.
- Paulson, R., Fixson, D., & Friedman, R. (2004). *An analysis of implementation of system of care at fourteen CMHS grant communities*. Tampa, FL: Louis de la Parte Florida Mental Health Institute, University of South Florida.
- President's Commission on Mental Health. (1978). *Report of the sub-task panel on infants, children, and adolescents*. Washington DC: Author.

- President's New Freedom Commission on Mental Health. (2003). *Achieving the promise: Transforming mental health care in America. Final Report* (DHHS Publication No.SMA-03-3832). Rockville, MD: Author.
- Pullman, M. A., Kerbs, J., Koroloff, N., Veach-White, E., Gaylor, R., & Sieler, D. D. (2006). Juvenile offenders with mental health needs: Reducing recidivism using wraparound. *Crime and Delinquency*, 52, 375-397.
- Rapp, C., & Goscha, R. (2012). *The strengths model* (3rd Ed.). London, UK: Oxford University Press.
- Rast, J., Vetter, J., & Poplin, E. (2008). Wraparound in Oklahoma: Preliminary results of a randomized study. *21st Annual Research Conference: A System of Care for Children's Mental Health*. Tampa, FL: Louis de la Parte Florida Mental Health Institute.
- Rawal, P., Lyons, J. S., MacIntyre, J., & Hunter, J. C. (2003). Regional variations and clinical indicators of antipsychotic use in residential treatment: A four state comparison. *Journal of Behavioral Health Services Research*, 31,178-188.
- Reamer, F. G. (2006). *Social work values and ethics* (3rd ed.). New York, NY: Columbia University Press.
- Reich, S., Bickman, L., & Heflinger, C.A. (2004). Covariates of self-efficacy: Caregiver characteristics related to mental health services self-efficacy. *Journal of Emotional and Behavioral Disorders*, 12(2), 99-108.
- Resendez, M. G., Quist, R. M., & Matshazi, D. G. M. (2000). A longitudinal analysis of family empowerment and client outcomes. *Journal of Child and Family Studies*, 9, 449-460.

- Resendez, M. (2002). The relationship between flexible wraparound and mental health outcomes. In C. Newman, C. J. Liberton, K. Kutash, & R. M. Friedman, *The 14th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 243-246). Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.
- Robinson, L., Berman, J., & Neimeyer, R. (1990). Psychotherapy for the treatment of depression: A comprehensive review of controlled outcome research. *Psychological Bulletin, 108*, 30-49.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.
- Rosenblatt, A. (1998). Assessing the child and family outcomes of system of care for youth with serious emotional disturbances. In M. Epstein, K. Kutash, & A. Duchnowski (Eds.), *Outcomes for children and youth with behavioral and emotional disorders and their families* (pp. 329-362). Austin, TX: PRO-ED.
- Rosenblatt, A. (2010). If it walks like a duck and quacks like a duck then must it be a rabbit? Programs, systems and cumulative science of children's mental health services. *Evaluation and Program Planning, 33*, 14-17.
- Stambaugh, L. F., Mustillo, S. A., Burns, B. J., Stephens, R. L., Baxter, B., Edwards, D., (2007). Outcomes from wraparound and multisystemic therapy in a center for mental health services system-of-care demonstration mental health as a primary care and concern: A system for comprehensive support and service. *American Psychologist, 60*, 601-614.

- Stein, L. I., & Test, M. A. (1980). Alternative to mental hospital treatment: Conceptual model, treatment program, and clinical evaluation. *Archives of General Psychiatry*, 37, 392-397.
- Stein, L. I., Test, M. A., & Marx, A. J. (1975). Alternative to the hospital: A controlled study. *American Journal of Psychiatry*, 132, 517-522.
- Stroul, B., & Blau, G. (2008). *The system of care handbook: Transforming mental health services for children, youth, and families*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Stroul, B., Blau, G., & Friedman, R. (2010). *Updating the system of care concept and philosophy*. Washington, D.C.: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health.
- Stroul, B., & Friedman, R. (1986). *A system of care: A framework for reform in children and youth with severe emotional disturbances* (Rev. ed.). Washington DC: Georgetown University Child Developmental Center, National Technical Assistance Center for Children's Mental Health.
- Suter, J.C., & Bruns, E. J. (2008). A narrative review of wraparound outcome studies. In E. J. Bruns, & J. S. Walker, *Resource guide to wraparound*. Portland, OR: National Wraparound Initiative, Research and Training Center for Family Support and Children's Mental Health.
- Suter, J. C., & Bruns, E. J. (2009). Effectiveness of the wraparound process for children with emotional and behavioral disorders: A meta-analysis. *Clinical Child and Family Psychology Review*, 12, 336-351.

- Teague, G. B., Bond, G. R., & Drake, R. E. (1998). Program fidelity in assertive community treatment: Development and use of a measure. *American Journal of Orthopsychiatry*, *68*(2), 216-232.
- Teague, G. B., Drake, R. E., & Ackerson, T. H. (1995). Evaluating use of continuous treatment teams for persons with mental illness and substance abuse. *Psychiatric Services*, *45*, 689-695.
- Tjeltveit, A. C. (1999). *Ethics and values in psychotherapy*. New York, NY: Routledge.
- Tomarken, A. J., & Waller, N. G. (2005). Structural equation modeling: Strengths, limitations, and misconceptions. *Annual Review of Clinical Psychology*, *1*, 31–65.
- U.S. Congress, Office of Technical Assistance. (1986). *Children's mental health: Problems and services: A background paper*. Washington DC: Author.
- U.S. Department of Health and Human Services. (1999). *Mental health: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, and National Institutes of Health, National Institute of Mental Health.
- U.S. Public Health Service. (2000). *Report to the Surgeon General's Conference on Children's Mental Health: A national action agenda*. Washington DC: Author.
- Urdapilleta, O. W. (2012). *National evaluation of the Medicaid demonstration waiver home-and community-based alternatives to psychiatric residential treatment facilities*. Columbia, MD: Impaq International.
- VanDenBerg, J., Bruns, E., & Burchard, J. (2003). The history of the wraparound process. *Focal Point*, *17*(2), 4-7.

- Walker, J. S., & Bruns, E. J. (2006a). Building on practice-based evidence: Using expert perspectives to define the wraparound process. *Psychiatric Services*, *57*, 1597-1585.
- Walker, J. S., & Bruns, E. J. (2006b). The wraparound process: Individualized, community-based care for children and adolescents with intensive needs . In J. & Rosenberg, *Community mental health: Challenges for the 21st century* (pp. 47-57). New York, NY: Routledge.
- Walker, J. S., Bruns, E. J., & Penn, M. (2008). Individualized services in system of care: The wraparound process. In B. A. Stroul, & G. Blau, *The system of care handbook: Transforming mental health services for children, youth, families* (pp. 127-153). Baltimore: Paul H. Brookes Publishing.
- Walker, J. S., Bruns, E. J., Rast, J., VanDenBerg, J. D., Osher, T. W., Koroloff, N., ... (2004). *Phases and activities of the wraparound process*. Portland, OR: Portland State University, Research and Training Center on Family Supports and Children's Mental Health, National Wraparound Initiative.
- Walker, J. S., Pullmann, M. D., Moser, C. L., & Bruns, E. J. (2012). Does team-based planning "work" for adolescents? Findings for studies of wraparound. *Psychiatric Rehabilitation Journal*, *35*(3), 189-198.
- Walker, J. S., & Schutte, K. M. (2004). Process and process in wraparound teamwork. *Journal of Behavioral and Emotional Disorders*, *12*(3), 182 – 192.
- Walker, J. S., & Schutte, K. M. (2005). Quality and individualization in wraparound planning. *Journal of Child and Family Studies*, *14*, 251-267.

- Walker, J. S., Throne, E. K., Powers, L. E., & Gaonkar, R. (2010). Development of a scale to measure the empowerment of youth consumers of mental health services. *Journal of Emotional and Behavioral Disorders, 18*(1), 51-59.
- Weisz, J. R., Han, S. S., & Valeri, S. M. (1996). What can we learn from Fort Bragg? *Journal of Child and Family Studies, 5*(2), 185-190.
- Woltmann, E., Wilkness, S., Teachout, A., M.J., & Drake, R.E. (2011). Trial of an electronic decision support system to facilitate shared decision making in community mental health. *Psychiatric Services, 62*(1), 54-60.

VITA

Deborah Ann Cohen

Education

- 2015 PhD, Social Work, University of Kentucky
Dissertation: Obtaining genuine family involvement: unpacking the system of care values and principles
Chair: Carlton Craig
Committee: Chris Flaherty, David Royse, Sarah Wackerbarth, and Martin Hall
- 2008 Master's in Social Work, University of Michigan,
Concentration: Social Policy and Evaluation; Area: Health
Minor: Human Services Management
- 2006 Bachelor of Arts, Psychology, Bowling Green State University
Focus: Cognitive Psychology

Research Interests and Expertise

Mental Health Informatics
Behavioral Health Services Research
Integrated Healthcare
Participatory Methods of Program Evaluation

Teaching Interests and Expertise

Program Evaluation and Research Methods
Mental Health Policy
Social Policy
Nonprofit Management
Statistics
Human Behavior and the Social Environment
Ethics

Present Position

August 2013- present Research Associate, Texas Institute for Excellence in Mental Health, School of Social Work, University of Texas at Austin.

Teaching Experience

August 2011- May 2013 Instructor , University of Kentucky
SW 412 - Human Behavior in a Social Environment I
SW 750 - Research Design and Implementation I
SW 751 - Research Design and Implementation II

Professional Social Work Experience

Director of Evaluation, Community Mental Health Center, Inc., Lawrenceburg, Indiana
January 2009- August 2013

Evaluation Intern, Starfish Family Services, Inkster, Michigan
January 2008 – December 2008

Community Support Provider, Harbor Behavioral Healthcare, Toledo, Ohio
November 2006 – August 2007

Crisis Consultant, Wood County Behavioral Connections: The Link, Bowling Green,
Ohio
December 2003 – August 2007

Grants and Contracts

Grants

2013-2016 Evaluator, *Zero Suicides in Texas*. Sub award \$443,943. Substance Abuse and Mental Health Services Administration.

2013-2017 Evaluator, *Achieving a Texas System of Care*. Total award \$3,430,387. Substance Abuse and Mental Health Services Administration.

2013-2018 Evaluation Team, *Project Launch: Early Childhood Intervention*. Total grant award \$500,000. Indiana Department of Health (Grant writing team member).

2013-2014 Implementation Team/Evaluator, *Achieving Integrated Healthcare*. Total grant \$75,000. Health Foundation of Greater Cincinnati (Grant writer).

2013-2014 Implementation Team/Evaluator, *Trauma-informed Agency Transformation*. Total grant \$100,000. Health Foundation of Greater Cincinnati (Grant writing team member).

2012-2013 Evaluator, *Tobacco Cessation Initiative*. Total grant \$50,000. Health Foundation of Greater Cincinnati (Grant writing team member).

2010-2015 Implementation Team/Evaluator, *Getting and Keeping People in Substance Use Disorder Treatment: Using the NIATx Approach*. Total grant \$100,000. Health Foundation of Greater Cincinnati (Grant writing team member).

2010-2013 Evaluator, *Primary Care Integration Service*. Total grant \$300,000. Health Foundation of Greater Cincinnati (Grant writing team member).

2009-2014 Local Evaluator, *One Community, One Family System of Care*. Total grant \$6,200,000. Indiana Division of Mental Health and Addictions/Substance Abuse and Mental Health Services Administration.

2008-2011 Implementation Team/Evaluator, *Outcome Management*. Total grant \$300,000. Health Foundation of Greater Cincinnati (Hired to implement grant).

Contracts

2013-2014 Local Principal Investigator, *Improving Care and Reducing Cost (ICRC) Study*. Approximate total award \$100,000. Feinstein Institute/Center for Medicaid and Medicare.

2012-2014 Evaluator, *Response to Alternative for State Hospitalization: Integrated Treatment Co-Occurring Disorders/Supportive Housing*. Total award \$489,000, Indiana Division of Mental Health and Addictions.

2012-2014 Evaluator, *Community Evidence-based Practice: Illness Management and Recovery*. Total award \$110,000, Indiana Division of Mental Health and Addictions.

2010-2014 Local Research Coordinator, *Recovery After First Schizophrenic Episode (RAISE) Early Treatment Program (ETP)*. Approximate total award \$350,000. Feinstein Institute/National Institute of Mental Health.

Peer Reviewed Publications

Cohen, D. (2011) *Harnessing the power of electronic health record data for use in program evaluation. Special Issue: New Directions for Evaluation: Enduring Issues in Evaluation: The 20th Anniversary of the Collaboration between NDE and AEA. New Directions for Evaluation*,131: 117–121.

Cohen, D. (2014) *Effect of the exclusion of behavioral health from Health Information Technology (HIT) legislation on the future of integrated health care*. *The Journal of Behavioral Health Services & Research*.

Technical reports,

Lopez, M.A. & **Cohen, D. A.** (2014, December). *Zero Suicide in Texas: Annual Evaluation Report Year 1*. Texas Institute for Excellence in Mental Health, School of Social Work, University of Texas at Austin.

Lopez, M.A., **Cohen, D.A.**, & Szlyk, H. (August, 2014). *Texas Family Partner Evaluation: Addendum*. Texas Institute for Excellence in Mental Health, School of Social Work, University of Texas at Austin.

Cohen, D. & Anderson, J. (2014) *Evaluation Brief: One Community One Family provider survey over time: comparison of 2010, 2012, and 2014*. Submitted to One Community One Family Governance Board.

- Cohen, D.**, Anderson, J. & Howland, A. (2013) *Evaluation Brief: Functioning improvement and service satisfaction for children served by One Community One Family*. Submitted to One Community One Family Governance Board.
- Cohen, D.** & Howland, A. (2013) *Evaluation Brief: Early Childhood Provider Perspectives of Mental Health Needs for Young Children in a Rural Region*. Submitted to One Community One Family Governance Board.
- Anderson, J., Howland, A. & **Cohen, D.** (2013) *Evaluation Brief: Who participates in one community one family: Demographics at enrollment*. Submitted to One Community One Family Governance Board.
- Cohen, D.**, Squicciarini, L. (2012). *Psychosocial Assessment Pilot Project Preliminary Evaluation*. Submitted to Fayette County Best Practice Court Initiative.
- Anderson, J., Howland, A. & **Cohen, D.** (2012). *Evaluation Brief: Who participates in One Community One Family; demographics at enrollment*. Submitted to One Community One Family Governance Board.
- Anderson, J., **Cohen, D.** Howland, A. (2012) *Evaluation Brief: Services and costs during the first six months in the One Community One Family System of Care*. Submitted to One Community One Family Governance Board.
- Anderson, J., Howland, A. & **Cohen, D.** (2012). *Evaluation Brief: Educational functioning and symptomatology at enrollment in One Community One Family*. Submitted to One Community One Family Governance Board.
- Cohen, D.** (2012). *Evaluation Brief: One Community One Family provider survey: comparison of March 2010 to March 2012*. Submitted to One Community One Family Governance Board.
- Cohen, D.** (2011). *Primary Care Integration Service Year 1 Evaluation Report*. Funded by the Health Foundation of Greater Cincinnati.
- Cohen, D.** (2011). *Evaluation Brief: One Community One Family Improvement in functioning*. Submitted to One Community One Family Governance Board.
- Anderson, J., Howland, A. & **Cohen, D.** (2011). *Evaluation Brief: Demographic characteristics of young people participating in the One Community, One Family system of care (year 1): May 2011*. Submitted to One Community One Family Governance Board.
- Howland, A. & **Cohen, D.**, Anderson, J. (2011). *Evaluation Brief: Finding Improvement by Reaching Empowerment (FIRE) study overview of the FIRE program evaluation*. Submitted to One Community One Family Governance Board.

Works under review

Anderson, J., Howland, A. & **Cohen, D.** (under review) *Developing a rural system of care: An initial study of implementation.*

Cohen, D. & Howland, A. (under review) *Provider prospective of the need for early child mental health services in a rural setting.*

Presentations

Lopez, M.A., Stevens Manser, S., **Cohen, D.** (2014). *Innovative Financing: Transforming Behavioral Health through the 1115(a) Medicaid Demonstration Option.* Poster at the Georgetown University Training Institutes, July 16-20, Washington DC.

Cohen, D. (2014) *How do we know if kids are getting better? Implementation of real-time clinical outcomes monitoring.* Poster at the 22nd NIMH Conference on Mental Health Services Research, April 23-25, Bethesda, MD.

Cohen, D., Croney, E. & Klyachkin, G. (2014). *How do we know if kids are getting better? Pilot project of a clinical decision support system.* Paper at the 27th Annual Children's Mental Health Research and Policy Conference, March 2-5, 2014, Tampa, FL.

Cohen, D., Howland, A. & Cornell, H. (2014). *Listening to young adults: Finding better ways to engage young adults in mental health treatment.* Paper at the 27th Annual Children's Mental Health Research and Policy Conference, March 2-5, 2014, Tampa, FL.

Howland, A., Cornell, H., Anderson, J. & **Cohen, D.** (2014). *Perceptions of School-Based Mental Health Supports in Rural Communities with and without Systems of Care.* Paper at the 27th Annual Children's Mental Health Research and Policy Conference, March 2-5, 2014, Tampa, FL.

Howland, A., **Cohen, D.**, Cornell, H. & Riley, K. (2013). *Using Empowerment Evaluation to Develop, Improve, and Sustain a Parent Support Program.* Workshop presented at the Federation of Families Annual Conference, November 14-17, 2013, Washington, D.C.

Cohen, D. (2013). *Understanding the Voices of Young Adults Through Evaluation.* Chair/Discussant at the 2013 American Evaluation Association Annual Conference, October 16-19, 2013, Washington, DC.

Cohen, D., Anderson, J. & Howland, A. (2013). *Participatory development of a measure of trauma-informed organizations.* Paper at the 2013 American Evaluation Association Annual Conference, October 16-19, 2013, Washington, DC.

- Howland, A., **Cohen, D.** (2013). *Program evaluation on the cheap*. Workshop presented at the 12th Annual Indiana State Systems of Care Conference, May 3, 2013, Indianapolis, IN.
- Howland, A., **Cohen, D.**, & Anderson, J. (2013). *Developing a Rural System of Care: An Initial Study of Implementation*. Paper presented at 26th Annual Children's Mental Health Research and Policy Conference, March 3-6, 2013, Tampa, FL.
- Cohen, D.** Squicciarini, L. (2013). *Nothing is as good as a good process: Lessons learned from a county collaborative to improve access to services for child welfare involved caregivers*. Poster presented at 26th Annual Children's Mental Health Research and Policy Conference, March 3-6, 2013, Tampa, FL.
- Cohen, D.** (2012). *The NIATx Effect: process improvement and organizational change*. Symposium chaired at 2012 American Evaluation Association Annual Conference, October 24-27, 2012, Minneapolis, MN.
- Cohen, D.**, Firesheets (2012). *Promoting data driven capacity building within behavioral health organizations*. Paper presented at 2012 American Evaluation Association Annual Conference, October 24-27, 2012, Minneapolis, MN.
- Squicciarini, L. **Cohen, D.** (2012). *Provider prospective of the need for early child mental health services in a rural setting*. Paper presented at the 2012 American Evaluation Association Annual Conference, October 24-27, 2012, Minneapolis, MN.
- Cohen, D.**, Anderson, J (2012). *Increasing Treatment Retention for Young Adults in a Rural Mental Health Center*. Paper presented at the 37th Annual National Institute For Social work and Human Services in Rural Areas, July 15-18, 2012, Nashville, Indiana.
- Clifford, P., **Cohen, D.**, Johnson, P. (2012). *Communicating results the NIATx way*. Paper presented at the Ohio Program Evaluator's Spring Exchange, May 18, 2012, Columbus, Ohio.
- Anderson, J., Howland, A., **Cohen, D.**, Rupp, J. (2012). *Symptomatology at enrollment in a multicounty rural system of care*. Paper presented at 25th Annual Children's Mental Health Research and Policy Conference, March 4-7, 2012, Tampa, FL.
- Cohen, D.** (2012). *Truly meaningful use*. Paper presented at 25th Annual Children's Mental Health Research and Policy Conference, March 4-7, 2012, Tampa, FL.
- Cohen, D.** (2011) *EHR data and behavioral health*. Invited Speaker, Innovations in Health Systems for the 2011 Data! Fostering Health Innovation in Kentucky and Ohio, October 23, 2011, Covington, KY.

- Cohen, D. M., **Cohen, D. A.** (2011). *Empowerment Evaluation: Applicability and adaptation for the criminal justice system*. Paper presented at the 2011 American Society of Criminology Meeting, November 16-19, 2011, Washington, D.C.
- Firesheets, K., **Cohen, D.** (2011). *Fibs, funders, power and politics: The dilemma of unflattering evaluation results*. Roundtable conducted at 2011 American Evaluation Association Annual Conference, November 2-5, 2011, Anaheim, CA.
- Cohen, D.** (2011). *Build it and they may come: The struggles of implementing an integrated primary care clinic within a mental health center*. Poster presented at 2011 American Evaluation Association Annual Conference, November 2-5, 2011, Anaheim, CA.
- Anderson, J., **Cohen, D.**, Rupp, J., Riley, K. (2011). *Developing rural systems of care: lessons from the field*. Workshop presented at the 2011 System of Care Community Training: Expanding and Sustaining Systems of Care: New Challenges and New Opportunities, July 19-22, 2011, Chicago, IL.
- Cohen, D.**, Pieper, N. (2011). *Assisting consumers in taking the first step: rapid access project*. Poster presented at the NIATx Summit and SAAS National Conference, July 10-13, Boston, MA.
- Cohen, D.** (2011). *Promoting organization learning by utilizing electronic health record data*. Paper to be presented at the 2011 Ohio Program Evaluator's Group Spring Conference, May 20, 2011, Columbus, OH.
- Cohen, D.**, Anderson, J., Cornett, S. (2011). *Understanding provider perspectives of system of care principles in a rural setting*. Poster presented at 24th Annual Children's Mental Health Research and Policy Conference, March 20 – 23, 2011, Tampa, FL.
- Anderson, J., **Cohen, D.**, Rupp, J. (2011). *Using evaluation to inform rural system of care development: Southeast Indiana*. Poster presented at 24th Annual Children's Mental Health Research and Policy Conference, March 20 – 23, 2011, Tampa, FL.
- Cornett, S., **Cohen, D.** Short, B., Riley, K. (2010). *Transitioning case coordination from the wraparound facilitators to the family: lessons from a rural multi-county systems of care*. Poster presented at Training Institutes: New Horizons for Systems of Care Effective Practice and Performance for Children and Youth with Mental Health Challenges and Their Families, July 14-18, 2010, Washington, D.C.
- Cornett, S., Short, B., Riley, K., **Frater, D.** (2009). *Transitioning case coordination from the wraparound facilitators to the family: lessons from a rural multi-county*

systems of care. Paper presented at the Building on Family Strengths Conference, June 23-25, Portland, Oregon.

Frater, D., Savas, S.A., Kalass, A. (2008). *Steps for improving outcome measurement of a family-centered poverty program*. Poster to be presented at the American Evaluation Association Annual Conference, November 5, Denver, Colorado.

McAuley, J. D., **Frater, D.**, Miller, N., Janke, K. (2006). *Detecting changes in timing: Evidence for two modes of listening*. Paper presented at the International Conference of Music Perception and Cognition, August 22-26, Bologna, Italy.

Frater, D. (2006). *Individual differences in the perception of sequence timing*. Poster presented at 2006 Bowling Green State University's Symposium on Undergraduate Research, April 2006, Bowling Green, Ohio.

Frater, D. (2006). *Individual differences in the perception of sequence timing*. Paper presented at 2006 Mount Union College's Interdisciplinary Conference for the Behavioral Sciences, April 2006, Mount Union, Ohio.

Journal Reviewer

Journal of Behavioral Health Services & Research

Journal of Public Health Informatics

Evaluation and Program Planning

Specialized Training

Hierarchical Linear Modeling, University of Cincinnati, 2012

Survey Methodology, ICPSR University of Michigan, 2008

Honors and Awards

NIMH Mental Health Services Research New Investigator's Training, 2014.

University Graduate Scholarship, 2011-2013.

Summer Research Fellowship, 2012.

Professional Memberships

Society of Social Work Research Member, 2012-present.

American Evaluation Association Member, 2007-present.

Social Work Topical Interest Group Co-Chair, 2012-2014.

Conference Proposal Reviewer, 2008-2013.

Ohio Program Evaluator's Group Member, 2009- 2013.