PARENT-ADOLESCENT COMMUNICATION AND ADOLESCENT DEPRESSION
AFTER A PARTIAL HOSPITALIZATION PROGRAM

A Dissertation
Presented to
The Graduate Faculty of The University of Akron

In Partial Fulfillment
of the Requirements of the Degree of
Doctor of Philosophy

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August, 2016
PARENT-ADOLESCENT COMMUNICATION AND ADOLESCENT DEPRESSION

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Dissertation

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ABSTRACT

The purpose of this present study was to examine the relationship between parents’ and adolescent’s’ perceptions of family communication and adolescents’ reports of depression symptoms. Data for this study came from an existing data set. Participants included 167 adolescents and 118 mothers. The Family Communication Scale (mother and adolescent), and the Revised Child Anxiety and Depression Scale Major Depression Subscale (adolescent only) were completed pre and post treatment. A correlational research design was used for this study. The results of the study found no correlation between mothers’ and the adolescent’s perception of family communication and adolescent depression prior to treatment. After treatment a correlation between adolescent’s perception of family communication and adolescent’s report of depression was found. It was also found that adolescent’s perception of family communication accounted for more variance than the mothers’ perception of communication in relation to adolescent report of depression.
ACKNOWLEDGEMENTS

The author is grateful to the many individuals who have supported, encouraged, and inspired the preparation and completion of this doctoral dissertation. I cannot forgo acknowledging the divine support I have had personally, professionally, and academically in the process of completing this doctoral dissertation. I must acknowledge the support from my best friend and wife, Linnea, for her continued encouragement, love, and long-suffering throughout this process. Additionally, I would like to thank our wonderful children (Caleb, Jensen, and Liana), who make this all worth it. I appreciate their support as Daddy worked for many hours and their little celebrations along the way of completing the dissertation. I also want to acknowledge our families and friends for their continued encouragement and prayers.

Academically and professionally, I want to acknowledge my advisor, Dr. Karin Jordan, for her continued encouragement and example of how to carry oneself in a professional but personal manner. Thanks to Dr. Ingrid Weigold for her assistance and availability in the statistical analysis process. Additionally, I appreciate the guidance provided by Dr. Rebecca Boyle, Dr. Cynthia Reynolds, and Dr. Evonn Welton for their continued suggestions and direction for the completion of the dissertation. I also want to thank Dr. Linda Perosa for her suggestions and passion that lead to the initial development of the study.
Additionally, I acknowledge my work family for their encouragement and time in assisting with the organizing of the data for the study. I admire and respect their continued encouragement and collaboration in providing critical and exceptional care to the families and adolescents who were served during the duration of this study.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES ................................................................. xi</td>
</tr>
<tr>
<td>LIST OF FIGURES ............................................................... xii</td>
</tr>
<tr>
<td>CHAPTER</td>
</tr>
<tr>
<td>I. INTRODUCTION ................................................................. 1</td>
</tr>
<tr>
<td>Adolescent Depression ....................................................... 2</td>
</tr>
<tr>
<td>Prevalence ........................................................................... 2</td>
</tr>
<tr>
<td>Risks .................................................................................. 3</td>
</tr>
<tr>
<td>Parent-Adolescent Communication ........................................ 3</td>
</tr>
<tr>
<td>Statement of the Problem ................................................... 5</td>
</tr>
<tr>
<td>Conceptual Framework for the Study ..................................... 5</td>
</tr>
<tr>
<td>Parent-Adolescent Communication ........................................ 6</td>
</tr>
<tr>
<td>Impact of Communication .................................................... 7</td>
</tr>
<tr>
<td>Treatments for Adolescent Depression ................................... 8</td>
</tr>
<tr>
<td>Psychopharmacology ............................................................ 9</td>
</tr>
<tr>
<td>Individual Focused Psychotherapy ........................................ 9</td>
</tr>
<tr>
<td>Family Therapy ..................................................................... 10</td>
</tr>
<tr>
<td>Purpose of the Study .......................................................... 11</td>
</tr>
<tr>
<td>Research Objectives ........................................................... 11</td>
</tr>
<tr>
<td>Section</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>General Research Questions</td>
</tr>
<tr>
<td>Significance of the Study</td>
</tr>
<tr>
<td>Definition of Terms</td>
</tr>
<tr>
<td>Limitations</td>
</tr>
<tr>
<td>Organization of the Study</td>
</tr>
<tr>
<td>Summary</td>
</tr>
<tr>
<td>II. REVIEW OF THE LITERATURE</td>
</tr>
<tr>
<td>Adolescent Depression</td>
</tr>
<tr>
<td>Depression Symptoms</td>
</tr>
<tr>
<td>Adolescent Depression Treatment</td>
</tr>
<tr>
<td>Psychopharmacology / Psychopharmacology and Psychotherapy</td>
</tr>
<tr>
<td>Individual Focused Psychotherapy</td>
</tr>
<tr>
<td>Family Therapy</td>
</tr>
<tr>
<td>Summary</td>
</tr>
<tr>
<td>General Systems Theory</td>
</tr>
<tr>
<td>Communication</td>
</tr>
<tr>
<td>Parent-Adolescent Communication</td>
</tr>
<tr>
<td>Depression Symptom Development and Communication</td>
</tr>
<tr>
<td>Summary</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
</tr>
<tr>
<td>Statement of Problem</td>
</tr>
<tr>
<td>Research Design</td>
</tr>
<tr>
<td>Description of Setting and Data Collection Procedures</td>
</tr>
</tbody>
</table>
Data ........................................................................................................ 64
Participants................................................................................................. 65
Inclusion and Exclusion Criteria ................................................................. 65
Instruments .................................................................................................. 66
Revised Child Anxiety and Depression Scale (RCADS) ......................... 66
Family Communication Scale .................................................................... 68
Statistical Analyses ..................................................................................... 71
Limitation ..................................................................................................... 72
Research Question and Hypothesis One - (Correlation)....................... 73
Research Question and Hypothesis Two - (Correlation)....................... 73
Research Question and Hypothesis Three - (Hierarchical Regression).... 74
Summary .................................................................................................... 75
IV. RESULTS ................................................................................................ 76
Descriptive Statistics.................................................................................... 76
Data Cleaning ............................................................................................... 77
Demographic Statistics ............................................................................... 80
Research Hypothesis Test Results ............................................................. 82
Hypothesis 1 ............................................................................................... 83
Hypothesis 2 ............................................................................................... 84
Hypothesis 3 ............................................................................................... 85
Summary .................................................................................................... 87
V. DISCUSSION ............................................................................................ 88
Summary of the Study .................................................................................. 88
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender of the participants</td>
<td>81</td>
</tr>
<tr>
<td>2. Age of adolescent participants</td>
<td>81</td>
</tr>
<tr>
<td>3. Ethnic representation of participants</td>
<td>82</td>
</tr>
<tr>
<td>4. Gender of parent participants</td>
<td>82</td>
</tr>
<tr>
<td>5. Correlation test of pre-test scales</td>
<td>84</td>
</tr>
<tr>
<td>6. Correlation of post-test scales</td>
<td>85</td>
</tr>
<tr>
<td>7. Summary of hierarchical regression for variables predicting adolescent depression</td>
<td>86</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Differences between General Systems Family Therapy and Individual Therapy</td>
<td>147</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

An adolescent’s mental health plays a critical role in future wellbeing, development, and success (Carr, 2008; Larner, 2009; Stark, Banneyer, Wang, & Arora, 2012). Symptoms of depression are specific mental health struggles that can significantly affect an adolescent’s emotional, educational, relational, and economic well-being (Andersen, Labriola, Lund, & Hansen, 2013; Carr, 2008). Additionally, many young people struggling with depression symptoms often have communication problems with their family and parents (Frijns, Keijsers, Branje, & Meeus, 2010). Although adolescence is a time of many physical, social, and emotional changes as well as a time of conflict between parents and adolescents (Brenning, Soenens, Braet, & Bal, 2012; Chhabra & Sodhi, 2012), depression symptoms frequently intensify these life stage issues. A significant percentage of adolescents is impacted by symptoms of depression and these symptoms often affect their mental and emotional functioning (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015; Vitiello, 2009). Adolescents do not function in isolation but function within the context of a family (Carr, 2008; Merikangas et al., 2010). Therefore, it appears to be important to identify the relationship between parents’ and adolescents’ perception of family communication and adolescents’ depression symptoms.
Adolescent Depression

Mental health mood disorders lead to an increased risk of suicide, which is the third leading cause of death in teenagers (Centers for Disease Control and Prevention, 2013). Additionally, mood disorders are the number one cause of hospitalization for adolescents between the ages of 13 and 17 years old (Vitiello, 2009).

Prevalence

It has been estimated that at any given time 4% to 6% of adolescents between the ages of 13 and 17 years of age are affected by a Major Depression Disorder (MDD) episode (see Appendix A) (Carr, 2008; Vitiello, 2009). It was reported that 11% of adolescents experience depression at some point in their life (Avenevoli et al., 2015; Merikangas et al., 2010). The 12-month prevalence rate for adolescent depression is approximately 8.3% (Substance Abuse and Mental Health Services Administration, 2009). If an adolescent struggles with depression, there is a 12% chance that the youth will relapse within a year and a 33% chance they will relapse within 4 years (Lewinsohn, Clarke, Seeley, & Rohde, 1994; Vitiello, 2009). These statistics show the impact of adolescent mental health, specifically depression, and the importance of working to understand factors that contribute to the development and maintenance of the symptoms. Although gender was not a specific focus of this study, a distinct difference in depression symptoms begins to develop between adolescent females and males. An example of this is that female adolescents report struggling with depression symptoms three times more than male adolescents (Carr, 2008; SAMHSA, 2009).
Risks

Risks that are known to accompany adolescent depression, if professional help is not obtained are: substance use (alcohol, tobacco, cannabis, polydrug use, and other illicit drug use), mood state struggles (fatigue, psychomotor retardation, sleep and appetite disturbance, low self-esteem and self-worth, pessimism, indecisiveness, poor attention, poor concentration, worthlessness, and guilt), as well as increased likelihood of comorbid diagnosis, academic struggles, confusion, weight gain, and most alarming increased suicidal risk (Carr, 2002; Carr, 2008; Dopheide, 2006; Gould, King, & Greenwald, 1998; Larner, 2009; Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2000; Liu et al., 2006; Nichols, 2011; Saluja et al., 2004; Stark et al., 2012; Waslick, Kandel, & Kakouros, 2002; Wilkinson, Levin, Roberts, Dubicka & Goodyer, 2011).

As was discussed earlier, depression can have a significant impact on a youth’s development and choices (Carr, 2008; Dopheide, 2006; Larner, 2009). Depression can become a difficult challenge to overcome without the appropriate support. Adolescents who struggle with depression symptoms have an increase likelihood of engaging in risky behavior, having mood state issues, and struggling with daily activities. As adolescents struggle with depression symptoms, parent-adolescent communication issues are often present.

Parent-Adolescent Communication

Family communication is known to have a significant relationship with adolescent physical and mental health issues (Brenning et al., 2012; Chhabra & Sodhi, 2012; Latina, Giannotta, & Rabaglietti, 2015; Shaw, Dallos, & Shoebridge, 2009) and also contributes to poor development of social and stress management skills (Curran &
Datto, 2014; Yu et al., 2006). Unproductive parent-adolescent communication is known to be a factor contributing to adolescents being more likely to engage in risky behaviors as well as increasing depression symptoms (Curran & Datto, 2014; Yu et al., 2006). In addition, poor family communication contributes to the adolescent struggling to develop problem-solving skills to manage stressors. It also leads to ineffective management of family conflict (Parra et al., 2011; Curran & Datto, 2014). When effective parent-adolescent communication is present, the adolescent has an increased ability to manage daily tasks (Van Dijk et al., 2014). Additionally, strong parent-adolescent communication provides the adolescent with the support to manage even the strong emotions and thoughts (i.e., self-harm or suicidal ideation) that may accompany depression (Lai-Kwok & Shek, 2010; Latina, Giannotta, & Rabaglietti, 2015).

The slow decline of mental health stigma over the years has allowed for a more regular focus on adolescent depression. Adolescent depression remains a significant issue despite mental health concerns being less stigmatized. This is due to the effects depression has on social and emotional development, which often continues throughout adulthood. Due to this risk, it is important to be aware of parent-adolescent communication and its protective factors for adolescents (Kam, Castro, & Wang, 2015). A greater understanding of the relationship between parent-adolescent communication and adolescent depression can assist adolescents, their families, and professionals in minimizing the risks that accompany adolescent depression (Cairns, Hui Yap, Pilkington, & Jorm, 2014).
Statement of the Problem

While evidence for the relationship of poor parent-adolescent communication and adolescent depression has been established (Chhabra & Sodhi, 2012; Frijns, Keijsers, Branje, & Meeus, 2010; Lai-Kwok & Shek, 2010; Latina et al., 2015), there is limited research available assessing the impact of parent-adolescent communication within an intensive based treatment program for adolescent depression. For the purpose of this study, poor communication was defined as little or no empathy, not listening to the other person, not being open to the other’s opinion or ideas, and disinterested body language. Therefore, this study was concerned with exploring the relationship between parent-adolescent communication and adolescent depression within an intensive based treatment program for adolescent depression.

This study examined data from an already existing data set and data collection process that took place within an intensive treatment program that served adolescents and families from the American Mid-West region. This data was utilized to explore the impact parent-adolescent communication has on the adolescents’ report of depression symptoms.

Conceptual Framework for the Study

Parent-adolescent communication involves the parents, the adolescent, and other important family members. Therefore, if treatment only focuses on working with the adolescent or the parent, little or no change will be made in the parent-adolescent relationship. Thus, the individual treatment model must expand to look at a broader perspective. This is done through a General Systems Family Therapy approach, which incorporates all important family members (Deacon, & Davis, 2001; Lebow, 1987;
Mendenhall, Pratt, Phelps, & Baird, 2012; Shumway, Kimball, Korinek, & Arredondo, 2007; Spronck & Compernolle, 1997). The individual treatment model would be expanded to the General Systems Family Therapy model by incorporating family members in the therapy sessions (see Figure 1 for the differences in the focus of General Systems Family Therapy and individual therapy). This allows the family to discuss specific organizational behaviors that contribute to or maintain depression symptoms. Additionally, General Systems Family Therapy provides each family member with direction to make needed changes on how the family members interact with one another. If the family were not involved in the treatment, only the adolescent would make the needed changes. Then they would return to the unchanged family or system that influenced the development or maintenance of the depression symptoms.

For parent-adolescent communication to improve, both the parents and the adolescent should be incorporated into any effort of improving family communication. This effort was defined as a General Systems Theory approach. The General Systems Theory incorporates the understanding that a family is forever interacting, adapting, and changing (Mendenhall et al., 2012). This approach provides insight on the impact the adolescent’s family has on their current depression.

Parent-Adolescent Communication

As was previously stated, parent-adolescent communication plays an important role in the adolescent’s development and in his/her ability to manage life’s events (Carr, 2014; Curran & Datto, 2014; Feinauer et al., 2010; Larmer, 2009; Yu et al., 2006). Open communication assists the family in managing difficult trials as well as in developing new skills and relationships needed to maintain emotional, mental, and physical health.
For the purpose of this study, open communication was defined as frequent, open to one another’s ideas, and reflective of the others’ comments. When communication is unproductive, destructive, or not present, the adolescents are left to learn on their own the skills needed to cope (Parra et al., 2011). In attempting to manage a situation without the proper development and guidance, adolescents often begin developing unhealthy mental health symptoms or destructive behaviors (Chhabra & Sodhi, 2012).

**Impact of Communication**

Poor parent-adolescent communication is a leading cause for many physical and mental health issues for adolescents (Brenning et al., 2012; Chhabra & Sodhi, 2012; Frijns et al., 2010; Latina et al., 2015; Shaw et al., 2009; Tilton-Weaver & Marshall, 2008). This poor communication often increases when the adolescent struggles with depression symptoms (Carr, 2008; Stark et al., 2012). Specific issues that are often observed when parents’ and adolescent’s struggle in their communication are: (a) increase in internal emotional struggles (Frijns et al., 2010) specific to depression symptoms (Curran & Datto, 2014); (b) increased likelihood of engaging in risky behaviors (Yu et al., 2006); (c) psychosocial development issues (Chhabra & Sodhi, 2012); (d) increase in self-harm (Latina et al., 2015) and suicidal thoughts and behaviors (Lai-Kwok & Shek, 2010); and (e) low self-concept. When parents and adolescents have productive and supportive communication, the parent-adolescent relationship and communication becomes a protective factor to assist in reducing the struggles that were previously discussed (Kam et al., 2015). Open communication and relationships with
their parents allow the adolescent to maintain a robust mental health (Chhabra & Sodhi, 2012; Jun, Baharudin, & Jo-Pei, 2013).

A great deal of research shows that open communication between parents and adolescents decreases depression symptoms (Brenning et al., 2012; Chhabra & Sodhi, 2012; Curran & Datto, 2014; Frijns et al., 2010; Latina et al., 2015; Parra et al., 2011; Shaw et al., 2009; Tilton-Weaver & Marshall, 2008; Yu et al., 2006). As an adolescent improves communication with their parents, they also often improve their personal self-esteem (Van Dijk et al., 2014). Parent-adolescent communication plays an important factor in mental health and behavior choices as well as in psychosocial development (Chhabra & Sodhi, 2012). Open and productive communication includes sharing stories, showing acceptance towards one’s thoughts, and actively listening (Van Dijk et al., 2014). Improvements in communication and self-confidence often benefit current and future relationships and behaviors as the youth grows into adulthood (Van Dijk et al., 2014).

Parent-adolescent communication contributes to the mental and behavioral health of adolescents’ struggling with depression symptoms. Although it was not a specific focus of this study, knowledge of treatments that address and attempt to improve parent-adolescent communication and adolescent depression are discussed.

**Treatments for Adolescent Depression**

Despite there being many possible forms of treatment for adolescent depression, there are three major types that are known to be effective: (a) psychopharmacology, (b) psychotherapy, and (c) family therapy (Carr, 2008; Nichols, 2011; Stark et al., 2012;
Vitiello, 2009). While specific treatments are not a focus of this study, the following section will briefly discuss these three treatment modalities.

**Psychopharmacology**

The literature has shown that psychopharmacology (medication specifically designated to treat mental health symptoms) is an effective treatment approach for adolescent depression (Bridge et al., 2007; Kaslow, Baskin, & Wyckoff, 2002; TADS, 2004). The literature reported some concern and debate regarding the possible side effect of suicidal ideation when taking a serotonin reuptake inhibitors (SSRIs) medication (Gibbons, Hur, Bhaumik, & Mann, 2006; Hall, 2006; Hammad, Laugren, & Racoosin, 2006). Other medications are available such as tricyclic antidepressants (TCAs) but are not as effective as the SSRIs (Hazell, O’Connell, Heathcote, & Henry, 2002). Despite the debate regarding medication for adolescent depression, studies have shown that the benefits outweigh the risks (Bridge et al., 2007; Cheung, Emslie, & Mayes, 2005; Trowell et al., 2007; Vasa, Carlino, & Pine, 2006). Though psychopharmacology can be an effective treatment for adolescent depression, it is important to be aware of the risks in order to make the most appropriate use of the available treatments.

**Individually Focused Psychotherapy**

Other treatment approaches known to be effective in treating adolescent depression are psychotherapies such as Cognitive Behavior Therapy (CBT; Beck, 1967), Dialectical Behavior Therapy (DBT; Linehan, 1993), psychodynamic therapy (Doran, 2013), and interpersonal therapy (Mufson, Gallagher, Dorta, & Young, 2004; Mufson, Pollack- Dorta, Moreau, & Weissman, 2005; Rossello & Bernal, 2005). These forms of therapy work to help the individual alter and challenge unhelpful thoughts and behaviors
that may stem from one’s beliefs about themselves, their world, or their future (Nichols, 2011). There is extensive research and empirical validation regarding CBT’s and DBT’s effectiveness in assisting adolescents who deal with depression and other comorbid disorders (Beck, 2005; Miller, Rathus, & Linehan, 2007; Nichols, 2011; Rathus & Miller, 2015; Reinecke, Ryan, & Dubois, 1998; Straub et al., 2014; Tompson et al., 2007). CBT and DBT can take many equally effective forms such as individual therapy, family therapy, group therapy, trauma therapy, and others (Straub et al., 2014). Psychodynamic is a treatment that gathers new information with and from the individual through a structured and responsive interaction to gain insight on unconscious material (Doran, 2013). Interpersonal therapy for adolescents (IPT-A) is an effective treatment for adolescent depression. It works to improve communication and interpersonal effectiveness that impacts depression symptoms (Mufson, Gallagher, Dorta, & Young, 2004; Mufson, Pollack- Dorta, Moreau, & Weissman, 2005; Rossello & Bernal, 2005).

**Family Therapy**

Family therapy based treatments are known to improve adolescent depression at a 67% rate compared to other alternative treatments or no treatment groups (Weitzman, 2006). Family therapy can take on many different forms such as focusing on working with only the parents to provide psychoeducation or including all family members in the sessions (Stark et al, 2012). Overall, family therapy works to provide a foundation for working with a family by incorporating all essential family members. Family therapy also begins with assessing the uniqueness of a specific family to then intervene where necessary and appropriate (Mendenhall, Pratt, Phelps, & Baird, 2012). Many family-based interventions consist of: (a) parents being coaches in treatment, (b) parent psycho-
education, (c) parent groups, (d) multi-family groups, and (e) individual therapy for parents (Stark et al., 2012). A general family therapy approach works to incorporate all important family members into the treatment through family therapy sessions. Some of the specific family therapy models are: General Systems Therapy (Deacon & Davis, 2001; Lebow, 1987); Family-Focused Interventions (FFI; Tompson et al., 2007); Contextual Emotional-Regulation Therapy (CERT; Kovacs et al., 2006); System-Integrated Family Therapy (SIFT; Byng-Hall, Campbell, & Papadopoulos, 1996); Systemic Behavior Family Therapy (SBFT; Brent et al., 1996); and Family Psychoeducation (FPE; Sanford et al., 2006; Stark et al., 2012).

Each of these interventions and theories can be beneficial in their own right; however, more empirically validated information was needed. For this study, specific treatment modalities and intervention were not a focus. These treatment modalities were provided because they were utilized in the intensive treatment program from which the data for this study was taken.

**Purpose of the Study**

The present study examined the relationship between parents’ and adolescents’ report of family communication and an adolescent report of depression symptoms. In addition, the study explored to what degree the parents’ report and the adolescents’ report of family communication accounts for adolescents’ report of depression symptoms.

**Research Objectives**

As was examined, this study was concerned with exploring the impact and relationship parent and adolescent reports of family communication have on adolescents’ report of depression symptoms. Specific objectives of the investigation were:
1. Examine relationship between adolescent’s report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000), and the adolescent’s and parents’ report of family communication, as measured by the Family Communication Scale (FCS; Olson, 2011), before treatment in the intensive services program.

2. Examine the relationship between adolescent’s report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), and the adolescent’s and parents’ report of family communication, as measured by the Family Communication Scale (FCS), after the completion of the intensive services program.

3. Examine the relationship between adolescent’s and parents’ report of family communication, as measured by the Family Communication Scale (FCS), and the adolescent’s report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), after the completion of the intensive services program.

**General Research Questions**

1. Is there a statistically significant relationship between adolescents’ report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), and parents’ and adolescent’s report of family communication, as measured by the Family Communication Scale (FCS), before treatment?
2. Is there a statistically significant relationship between adolescent’s report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), and parents’ and adolescent’s report of family communication, as measured by the Family Communication Scale (FCS), after treatment?

3. Is there a statistically significant relationship between adolescent’s and parents’ report of communication, as measured by the Family Communication Scale (FCS), and adolescent’s report of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), after treatment?

**Significance of the Study**

Parent-adolescent communication is a critical factor in the development and health of an adolescent and is even more important when an adolescent is struggling with depression (Brenning et al., 2012). This study provided more empirical evidence that supportive parent-adolescent communication is a preventative factor for adolescent mental health (Kam, Castro, & Wang, 2015; Lai-Kwok & Shek, 2010). In addition, it provided more evidence to the effects poor parent-adolescent communication has on depression symptoms and behaviors (Chhabra et al., 2012; Yu et al., 2006). Knowing more information about the interaction of family communication and adolescent depression allows mental health professionals to have greater insight on specific areas to focus when treating adolescent depression. This study provided practitioners with more knowledge when assessing family communication to better determine the affect communication may be having on adolescents’ depression symptoms.
Definition of Terms

The term *adolescent* for this study was defined as a youth ranging between the ages of 13 years old and 18 years old.

*A Child* for this research study was defined as a youth ranging between the ages of 5 years old and 12 years old.

*Communication* is the ability to express care and ideas to family members and gain support and understanding from those same family members, as measured by the Family Communication Scale.

*Depression* was defined as having five or more symptoms of depression that have been present for the same 2-week period and results in change in one’s previous functioning. One symptom must be either (a) depressed mood or (b) loss of interest or pleasure. For youth, depression can be exhibited as irritable mood instead of depressed mood (American Psychiatric Association, 2013).

*General Systems Theory* is the concept that the system is greater than the sum of its parts; specifically looking at the interactions of individual components and their effect on one another leading to the total functioning of the whole (von Bertalanffy, 1968).

*Open Communication* was defined as frequent, open to one another’s ideas, and reflective of the others’ comments during communication (Kam et al., 2015).

*Poor Communication* was defined as one having little or no empathy, not listening to the other person, not being open to the other’s opinion or ideas, and disinterested body language during communication.

The statement *youth* for this study will encompass the combination of two age ranges (a) 5 through 12 years old and (b) 12 through 18 years old.
Limitations

Identified limitations for this study were: (a) the limitations that accompany the use of self-report scales, as well as (b) participants were limited to the treatment program from which the data was collected. Therefore, the results are limited and may only be generalized for this specific treatment population. Additionally, (c) the data analysis did not utilize dyadic data analysis but treated the data as individual entities. Also, (d) a limited amount of data was collected from the fathers of the adolescent participants. Furthermore, (e) the study did not assess other mental health symptoms aside from depression. Lastly, (f) the majority of the participants were Caucasian females making it difficult to generalize findings across cultures and genders. Chapter V will discuss these limitations in more detail.

Organization of the Study

The remainder of this study consists of Chapter II, which will review research literature discussing the impact and importance of parent-adolescent communication in adolescents specific to depression symptoms and behaviors. Chapter III will discuss the methods and instruments utilized focusing specifically on adolescents’ report of depression symptoms and parents’ and adolescents’ report of family communication. Chapter IV will provide a review of the measures utilized and the report of the statistical analysis. Chapter V will discuss the impact this study has in relation to family communication and adolescent depression in the mental health field.

Summary

Adolescents face many difficulties and challenges in today’s society with family dynamics being different than decades ago. Many adolescents are left to navigate and
overcome these challenges on their own without consistent, committed, and safe support leading to difficulties in mental and emotional health.

The purpose of this study was to increase the understanding of the impact family communication has on an adolescent’s depression symptoms. It identified how parent-adolescent communication can be a critical component in developing effective management of depression symptoms. This was done by looking at the specific relationship between parents’ and adolescent’s report of family communication and adolescent’s report of depression. A more comprehensive literature review of the various effects the parent-adolescent communication has on adolescent depression symptoms was completed Chapter II. Additionally, although treatment approaches were not a specific focus of this study, a brief summarization of specific treatment approaches for adolescent depression symptoms is provided in Chapter II.
CHAPTER II
REVIEW OF LITERATURE

This literature review discusses the prevalence of adolescent depression in the USA. The various impacts that adolescent depression has on the adolescent, as well as adolescent depression symptoms and treatment are addressed. Furthermore, focus is on General Systems Theory and the interconnectedness of the members in family systems. More specifically, the focus point is the interconnectedness of the parent-adolescent, focusing on the parent-adolescent perceived communication. Lastly, attention is given to communication and adolescent depression, more specific, perceived parent-adolescent communication and the perceived impact on the adolescent depression symptoms.

Adolescent Depression

Adolescent depression has been growing epidemically over the past decades involving the lives of millions of adolescents (Merikangas, et al., 2010; Stark, Banneyer, Wang, & Arora, 2012; Straub et al., 2014). The debate continues on whether adolescent depression is truly increasing in prevalence or if it is just less of a taboo topic (Vitiello, 2009). Adolescent depression is a serious mental health concern for today’s youth. The reported prevalence range for childhood depression in a 12-month period is 1% to 3% (Costello, Erklani, & Angold, 2006; Angold & Costello, 2001). The prevalence significantly increases as the child becomes an adolescent, such that the prevalence rate increases to approximate 8.3%, which translates into 2.8 million adolescents (age 12 to
18) (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009; Dopheide, 2006; Angold & Costello, 2001). These numbers render adolescent depression as a serious mental health concern not only for its current impact but also for its future implications on the adolescent and society (Merikangas, et al., 2010). Adolescents who struggle with depression, according to the literature, typically have an unhealthy mood state (fatigue, psychomotor retardation, sleep and appetite disturbance, low self-esteem and self-worth, pessimism, indecisiveness, poor attention, poor concentration, worthlessness, and guilt) (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015). Additionally, leading to continued depression, increased likelihood of comorbid diagnosis, academic struggles, confusion, and substance abuse (Carr, 2008; Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2000; Nichols, 2011; Saluja et al., 2004; Stark et al., 2012; Waslick, Kandel, & Kakouros, 2002). Also, adolescent depression effects peer and family relationships (Frijns, Keijesers, Branje, & Meeus, 2010) often stemming from poor relational communication (Latina, Giannotta, & Rabaglietti, 2015). One of the most concerning impacts of adolescent depression is the risk of suicide that occurs more frequently in adolescents who struggle with depression, than those who do not (Carr, 2002; Dopheide, 2006; Gould, King, & Greenwald, 1998; Larner, 2009; Liu et al., 2006; Wilkinson, Levin, Roberts, Dubicka & Goodyer, 2011). According to Nichols (2011) “…depressed youth tend to attribute their failures to internal, stable and global causes, and see their successes as external, transient, and specific causes” (p. 22). Given the prevalence of adolescent depression, and the depression symptoms, especially the potential suicide risk, it is important to gain a better understanding of adolescent depression, depression symptoms, and contributing factors.
The National Institute of Mental Health reported that 11.2% of adolescents will experience depression at some point in their lives (Merikangas et al., 2010). The diagnostic criteria utilized for a major depressive episode from the *Diagnostic and Statistical Manual of Mental Disorders-V* (DSM-5; American Psychiatric Association, 2013) is provided in Appendix M. Depression symptoms, according to the research literature, typically raise during the early and mid-years of adolescence and decline in later adolescence (Adkins, Wang, & Elder, 2009). Lewinsohn, Clarke, Seeley, and Rohde (1994) conducted a study with 1,508 high school adolescents in a North American community. Their study conducted diagnostic interviews where students were asked specific questions that assessed symptoms from the *DSM-IV* (Diagnostic and Statistical Manual of Mental Disorders-IV; American Psychiatric Association, 1994) to diagnose a major depression disorder. Lewinsohn et al. (1994) found that 12% of adolescents who struggled with depression relapsed with a depressive episode within 1 year of receiving treatment involving medication and therapy. They also found that 33% of these adolescents relapsed within 4 years of the initial treatment of psychotherapy and psychotropic medication. This finding was supported by another study which found that adolescents who struggle with depression have a higher likelihood of recurring depression and functional disability in adulthood (Weissman et al., 1999).

Although gender was not the focus of this study, it is important to note that significant changes occur in the prevalence of depression during adolescents. For example, during childhood both genders (male and female) are equally affected by depression (Goodyer, 2010). However, adolescent females struggle with depression three times more than males (Carr, 2008; SAMHSA, 2009). Furthermore, research has
also shown that adult females struggle with depression at least twice as much as adult males and that the change in depression rates begins in puberty for females (Carr, 2008; Dopheide, 2006).

Hankin and Abramson (2001) reviewed over 25 descriptive epidemiological studies regarding adolescent depression to identify the age of increase for depression as well as its impact on both males and females. Hankin and Abramson (2001) found through their epidemiological review that girls experienced more independent (events outside of individual’s control) and dependent (events as a result of an individual’s choices and behaviors) events than boys. Girls tended to ruminate more and had different expressions of depression symptoms than boys. Girls also had higher levels of “neurotic” personality traits, which increase the risk for depression (Carr, 2008). In summary, the review of these epidemiological studies found that adolescent girls have a higher genetic and hormonal risk for depression than adolescent boys (Dopheide, 2006; Hankins & Abramson, 2001).

In another study conducted by Eley et al. (2004), 377 depressed and non-depressed adolescents were exposed to high and low levels of life stress to determine the development and report of depression. Eley et al. utilized the short form of the Mood and Feelings Questionnaire (SMFQ; Angold et al., 1995) to measure depression symptoms. The Social Problems Questionnaire (SPQ; Corney, 1988) was used to measure family social adversity and the List of Threatening Events (LTE; Brugha & Cragg, 1990) was implemented to assess adverse life events. After the 377 participants were identified as being high or low on the depression, social problems, and life event scales, they each completed buccal swab kits to provide DNA samples. From these DNA samples, Eley et
al. (2004) reported that the depression in females was associated with a specific molecular genetics deficit in a serotonin transporter (5-HTT) in the promoter region of the serotonin transports, where this was not substantiated in boys. Collectively, this accumulation of factors (genetic, early parenting environment, and environmental) may partially explain why adolescent girls have higher rates of depression. Whether or not adolescent females or males have a higher rate of depression, adolescent depression, according to the literature, impacts both gender’s developmental health, specific to their current and future functioning and choices (Carr, 2008; Hankin, 2006; Shortt & Spence, 2006). Though males and females may express and experience depression slightly different, for the purpose of this study the focus will be on adolescent depression without gender-specific focus.

**Depression Symptoms**

Adolescent depression can be described as a state of low mood and lack of interest in activities previously enjoyed (American Psychiatric Association, 2013). Adolescent depression can affect the adolescent’s thoughts, behaviors, feelings and sense of wellbeing (Avenevoli et al., 2015). Adolescent depression symptoms include but are not limited to feeling sad, anxious, empty, hopeless and at times helpless, suicidal, worthless, guilty, frustrated, irritable, angry, agitated, ashamed, restless, tired, etc. (American Psychiatric Association, 2013). In addition, depressed adolescents might experience loss of appetite, over eating, weight loss or weight gain, headache, stomach pain, concentration problems, short term memory problems, sleep problems (e.g., insomnia, excessive sleep, etc.), relationship issues, isolation, digestive problems, and low energy, just to list a few (American Psychiatric Association, 2013). Depression
symptoms in adolescents, as seen above, are broad ranging and have been given some attention in the research literature.

One study conducted by Mazza et al. (2009) involved 938 first and second grade students from 10 metropolitan elementary schools located in the Pacific Northwest. Their study initially assessed the youth in first and second grade then did a follow-up assessment 7 years later, which had 842 (53.6% males, 46.4% female) eighth and ninth graders. As described above, data was collected at two time periods: (a) first and second grade, then (b) 7 years later when the youth were in eighth and ninth grade. For the study (Mazza et al., 2009), seven items from the Seattle Personality Questionnaire (SPQ) were used to assess depression and a four-item self-report questionnaire assessed anxiety. The Child Behavior Checklist-Parent Report (CBCL), the CBCL-Teacher report, and an eight-item self-report of behaviors were utilized to assess antisocial behaviors. Mazza et al. (2009) utilized the Stratus Conflict Tactics Scale, a four-item family stress questionnaire, and the Center for Epidemiological Studies-Depression Scale to assess family conflict, family stress, and parental depression. Mazza et al. (2009) reported that they found predictors for depression at first and second grade that were believed to negatively influence the development of adolescent depression. Mazza et al. (2009) also found that early risk factors in childhood had a moderating effect on adolescent depression, in adolescents, seven years later. Mazza et al. (2009) found that only adolescent girls reported a higher level of depression symptoms when family and martial conflict was present. As was expected, there was no difference between the genders when reporting symptoms or when conflict was present, in first and second grade. The study also found that adolescent girls, who had higher scores at a younger age in family-
and-marital-conflict, showed girls to have higher depression scores seven years later with an explained variance (R²) at .043. Mazza et al. (2009) reported also identifying that at a young age (4 to 6 years old) antisocial behaviors (both male and female) and anxiety characteristics were predictors of adolescent depression. Mazza et al. (2009) identified maternal depression as a predicting factor for adolescent depression, but with more significance for female depression. The study reported that females had more influencing factors on depression relating to relationships, possibly due to internalizing problems more than their male counterparts (Mazza et al., 2009).

Another study focusing on adolescent depression symptoms was conducted by Lewis, Collishaw, Thapar, and Harold (2014). More specifically, the study was conducted to obtain information on the impact family hostility and family environment has on depression symptoms in adolescents. The study consisted of a longitudinal community sample from the South Wales Family Study (SWFS) consisting of 316 families (157 boys, 159 girls). Their study began when the participants were between the ages of 11 and 13. The study also consisted of a genetically sensitive sample of 1,075 twin pairs; 653 dizygotic (135 male, 183 female, 335 opposite sex) and 422 monozygotic (189 male, 242 female) ranging from 12 to 20 years old. The study utilized the Child Depression Inventory (CDI; Kovacs, 1992) and the Short Mood and Feelings Questionnaire (SMFQ; Angold, Costello, Messer, Pickles, Winder, & Silver, 1995) to assess depression. The Iowa Youth and Families Project (IYFP) was utilized to assess reports of hostility. Lewis et al. (2014) found there was a gender difference in how boys and girls were affected by parent-child hostility; specifically, to there being an association within the mother-daughter dyads only. Lewis et al.’s (2014) study found
that there was an increase in hostility between the father and daughter when the daughter had an increase in depression symptoms, not vice-versa. Lewis et al. (2014) also addressed how adolescent females tended to be more sensitive to the family environmental factors leading to an increase in depression symptoms when hostility is present. The study provided important information regarding females showing their manifestation of the parent-child conflict through internalized symptoms such as depression (Lewis et al., 2014). Boys, on the other hand, according to this study, may express their distress through external symptoms such as conduct problems (Lewis et al., 2014).

Kouros and Garber (2014) also conducted a study focusing on adolescent depression symptoms. The study was conducted with 240 mothers (185 mothers with a history of depressive disorders) and youth from metropolitan public schools. The initial assessment started in 6th grade then continued annually through 12th grade. The Children’s Depression Rating Scale-Revised (CDRS-R; Poznanski, Mokros, Grossman, & Freeman, 1985) was utilized to assess youth depression symptoms and the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was utilized to assess the mother’s depression symptoms. The Children’s Report of Parental Behaviors Inventory (CRPBI; Schaefer, 1965; Schludermann & Schludermann, 1970) parent- and child-versions were utilized to assess child rearing behaviors and the Family Environment Scale (FES; Moos & Moos, 1994) and the Family Relationship Index (FRI) to provide assessment on the family’s cohesion, expressiveness, and conflict. Kouros and Garber’s (2014) study reported that there was a difference between boys’ and girls’ symptoms of depression. There were specific differences in the symptoms, such as sad
mood, sleep problems, low self-esteem/guilt, and concentration problems/indecision over the 6-year time period (6\textsuperscript{th} through 12\textsuperscript{th} grade). More specifically, Kouros and Garber (2014) found an increase in the girls relating to low self-esteem/guilt (b = .12, SE = .02, p < .0001), sleep disturbance (b = .14, SE = .02, P < .001) and sadness (b = .06, SE = .02, p = .004) which was significantly higher than that of symptoms in boys. In addition, boys presented a significant symptom difference in the area of concentration problems/indecision (linear slope = .26, SE = .06, P <.0001; quadratic slope = -.03, SE = .01, p < .0001), which was not the same for the girls. Kouros and Garber (2014) found that maternal psychological control and family relationship quality were impacting the depression symptom trajectory for males and females. They also found that the changes in symptoms increased over the 6-year time period, but the psychomotor disturbance had a sharp increase in the ninth grade (Kouros & Garber, 2014). The psychomotor disturbance was assessed by the Child Behavior Checklist-Parent Report (CBCL) and the CBCL-Teacher report at that ninth grade time period (Kouros & Garber, 2014). This study’s results showed when comparing older adolescents with children, that there was a higher level of depression symptoms seen in the older adolescents compared to younger children (Kouros & Garb, 2014).

In summary, adolescent depression symptom research has been explored through three research studies (Kouros & Garber, 2014; Lewis et al., 2014; Mazza et al., 2009). These studies show that there are differences in the way family stressors impact adolescent depression symptoms. This awareness can guide adolescent depression interventions and treatment approaches.
Adolescent Depression Treatment

There is much information on specific treatments and treatment modalities for adolescent depression (Hazell & Mirzaie, 2013; Larner, 2009; Trowell et al., 2007). The focus of this study was on adolescent depression and parent-adolescent communication and not adolescent treatment. However, an overview is provided of some of the existing treatments that are available and discussed in the literature. According to the literature, adolescent depression treatments can range from psychopharmacology/psychopharmacology and psychotherapy, to individually focused psychotherapy, to family therapy (Carr, 2008; Nichols, 2011; Stark et al., 2012; Vitiello, 2009).

Psychopharmacology/Psychopharmacology and Psychotherapy

A conversation regarding psychopharmacology is typically involved when discussing treatment options for adolescent depression (Carr, 2008; Vitiello, 2009). Some research studies find psychopharmacology to be an effective treatment method for adolescent depression (Kaslow et al., 2002) whereas other studies discuss its potential risks and problems (Hammad, Laugren, & Racoosin, 2006). Some research studies pointed toward a modest suicide risk increase, specific to the pediatric population (Stark et al., 2012). Research shows that selective serotonin reuptake inhibitors (SSRIs) are more effective at treating adolescent depression than other forms of medication (i.e., tricyclic antidepressants - TCAs) (Hazell & Mirzaie, 2013). However, SSRIs, according to some of the research literature, have been identified for some adolescents with depression to create a higher risk of suicide (Hall, 2006; Hammad et al., 2006; Healy, 2003). Other research has shown that antidepressants are beneficial and that their benefits greatly outweigh the risks (i.e., suicidal thoughts or actions) (Bridge et al., 2007;
Gibbons, Hur, Bhaumik, & Mann, 2006; Trowell et al., 2007). Therefore, research encourages families and providers to look at the benefits while evaluating the risks (Bridge et al., 2007).

Hazell and Mirzaie (2013) provided an update to the Cochrane review that was originally published in 2000. Their update offered a report on the effectiveness of medication in treating adolescent depression. Their study reviewed 14 trials consisting of 590 participants (female = 297; male = 235) between the ages of 6 and 18 years old who were identified as having a unipolar depressive illness. The scales utilized within the 14 studies were: (a) Schedule for Affective Disorders and Schizophrenia for School-Age Children (Kiddie-SADS), combined child and parent report; (b) Children’s Depression Rating Scale (CDRS); (c) Bellevue Index of Depression (BID); (d) Children’s Depression Inventory (CDI); (e) Hamilton Depression Rating Scale (HAM-D); (f) Depressive Adjective Checklist (DACL). Their report found that though tricyclic antidepressants (TCAs) are effective in treating adult depression, they are rarely used to treat depression in youth. Tricyclic antidepressants (TCAs) are rarely used due to TCAs being ineffective for treating depression in child and only partially effective for treating adolescent depression (Hazell & Mirzaie, 2013). However, their study did find that selective serotonin reuptake inhibitors (SSRIs) play more of an effective role in treating depression in youth (Hazell & Mirzaie, 2013; Hazell et al., 2002).

Cheung, Emslie and Mayers (2005) looked at the effectiveness of using SSRI’s alone in treating adolescent depression. The study reviewed eight studies that utilized the new class of antidepressants and had randomized placebo control trials with youth under the age of 19 years old. The studies reviewed by Cheung et al. (2005) utilized the
Clinical Global Improvement (CGI-I) scale as a measure for the effective use of the medication and utilized the Childhood Depression Rating Scale Revised (CDRS-R; Poznanski et al., 1984) to measure changes in the adolescents report of depression symptoms. Cheung et al.’s (2005) study found that there were many remission and response rates to the different SSRI antidepressants ranging from a 30% to 60% reduction of depression symptoms. The study also reported the serious adverse events (SAE) but did not have any major events that occurred (i.e., death, life threatening event, hospitalization, disability, etc.) in the reviewed studies where many of the side effects reported were more physical symptoms (i.e., headaches, dizziness, stomach issues, etc.). After reviewing the studies of the SSRI medication, Cheung et al. (2005) encouraged providers and families to be informed and aware of the effectiveness and risks of taking medication without other forms of treatment when treating adolescent depression.

A large study in the USA known as the Treatment for Adolescent Depression Study (TADS, 2004) found that 439 adolescents who had a combination of SSRIs and CBT had a higher improvement rate of 71.0% compared to 60.6% of medication alone. The study also found that when the medication was combined with CBT there was a decrease in suicidal thinking. When CBT was utilized alone, it had only a 43.2% improvement rate compared to the 71.0% for the combination of the SSRIs and CBT. The 43.2% improvement rate of CBT alone in the TADS (2004) study was lower than other comparative studies that showed a 60% improvement rate of CBT (Kaufman et al., 1997). The study’s overall finding was that the combination of SSRIs and CBT was most effective for adolescents struggling with moderate depression.
Goodyer et al. (2007) (Adolescent Depression Antidepressant and Psychotherapy Trial – ADAPT) conducted a trial in the UK that involved 208 adolescents struggling with severe depression. The researchers found that adding sessions of CBT to outpatient consultation and SSRIs did not provide as significant improvement for adolescents who were struggling with severe depression. The study found that by week 28, 61% of participants with the SSRI treatment alone reported much improvement in depression symptoms. Whereas, 53% of participants who had a combination of CBT and SSRI treatments reported having much improvement in depression symptoms, which was slightly lower than treatment with SSRI alone. Two other studies in the USA (Clarke et al., 2005; Melvin et al., 2006) had similar findings. The conclusions of these studies show that medication alone or the combination of medication with psychotherapy treatment are more effective when treating more severe levels of depression.

According to the literature, SSRIs and Fluoxetine are effective in reducing adolescent depression (Cheung et al., 2005; Vasa et al., 2006). Though medication can be effective on its own, the literature, as seen above supports that the combination of medication and psychotherapies such as CBT can be more effective, depending on the level of depression (Curry et al., 2006).

**Individual Focused Psychotherapy**

Another known treatment method, psychotherapy, can best be described as a form of treatment that assists the adolescent with depression symptoms by challenging the adolescent’s personal perceptions, beliefs, and behaviors that may be incorrect or distorted (Nichols, 2011). This approach looks at the unconscious material then works toward increasing insight and understanding in order to reduce the suffering that results
from this unconscious material (Doran, 2013). It works at assisting the individual to improve communication and interpersonal effectiveness as well as to provide success in faulty communication and interpersonal interactions (Mufson, Gallager, Dorta & Young, 2004). Specific treatment modalities of psychotherapy are: (a) cognitive behavior therapy (CBT) (Beck, 2005; Beck, Rush, Shaw, & Emery, 1979; Nichols, 2011); (b) dialectical behavior therapy (DBT) (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Miller, 2015); (c) psychodynamic therapy (Doran, 2013; Leichsenring, Abbass, Luyten, Hilsenroth, & Rabung, 2013); and (d) interpersonal therapy (Carr, 2008; Mufson et al., 2004; Stark et al., 2012). Weisz, McCarty, and Valeri (2006) reported that according to their research, the effectiveness of psychotherapy with adolescent depression was very positive. They found that treatment gains were maintained for 6 months post-termination; however, the effect was not seen over a 1-year follow-up period. This finding was not surprising considering the episodic nature of depression.

**Cognitive behavioral therapy (CBT).** CBT works from the premise that individuals have unhelpful thought and behavioral styles that stem from dysfunctional beliefs about one’s self, one’s world, or one’s future (Nichols, 2011). Aaron Beck, the originator of CBT, defined it as treatment that incorporates a framework of behavioral modules that work to lessen the effects of both unproductive cognitions and behaviors while providing problem-solving and coping skills (Beck, 2005). There are three main assumptions of CBT: (a) emotions and behaviors are significantly influenced by one’s thinking; (b) emotional disorders result from negative or unrealistic thinking; and (c) if one alters negative and unrealistic thoughts, emotional disturbances can be decreased (Nichols, 2011). CBT works to assist the individual in identifying the destructive or
distorted thoughts or beliefs they hold. Through the use of CBT, the individual begins to develop and test alternative beliefs while implementing behaviors to show a more optimistic and accurate perspective. The therapist’s role in this process is to guide the individual to learn new behavioral, as well as cognitive, and emotional skills (Nichols, 2011). Beck, Rush, Shaw, and Emery (1979, p. 3) stated that CBT is “an active, directive, time-limited, structured approach… based on an underlying theoretical rationale that an individual’s affect and behaviors are largely determined by the way in which they structure their world.” CBT is one of the most widely researched therapy approaches in treating psychological problems in adolescents (Nichols, 2011; Vitiello, 2009). CBT alone is shown to have significantly better outcomes than just taking antidepressants alone over a one and 2-year time frame and is associated with long term benefits and relapse prevention (Nichols, 2011). CBT can take many forms and many techniques are used (i.e., individual therapy, family therapy, group therapy, trauma therapy, etc.) and are equally effective.

In Straub et al.’s (2014) study, CBT was used in group therapy to treat adolescents between the ages of 13 and 18 struggling with depression. Straub et al. (2014) titled their program “Manualized Intervention to Cope with Depressive Symptoms, Help Strengthen Resources, and Improvement Emotion Regulation” (MICHI – Japanese meaning “The Way”). The MICHI treatment utilized many different therapeutic components such as (a) psycho-education, (b) cognitive restructuring with the aim of reducing rumination, (c) behavioral activation, (d) resource activation, (e) enhancement of self-esteem, (f) problem-solving skills, (g) emotion regulation, (h) management of acute crises, and (i) prevention of relapse. The program was set up to last
5 weeks, with weekly visits lasting 75 to 90 minutes with one booster session 5.5 weeks after the last regular session (Straub et al., 2014). The treatment program primarily focused on individual group treatment. However, the sixth session, which was the last group therapy session, involved a support member who would address different relapse preventions.

For the MICHIT treatment program that was conducted by Straub et al. (2014), each participant took the Children’s Depression Rating Scale Revised (CDRS-R; Poznanski & Mokros, 1996), the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version (K-SADS-PL; Kaufman et al., 1997). Each participant was given intelligence tests, either: (a) the Wechsler Intelligence Scale for Children-Fourth Edition (WISC IV; Petermann & Petermann, 2011); (b) the Wechsler Adult Intelligence Scale (WAIS; Aster, Neubauer, & Horn, 2006); or (c) the testing system for education counseling (PSB; Horn, 2004). The Beck Depression Inventory-Revision (BDI-II; Hautzinger, Keller, & Kuehner, 2006) and the German version of the CDRS-R (a semi-structured clinician-rated interview), was utilized over the last 2 weeks (Poznanski & Mokros, 1996). The Inventory of the Assessment of Quality of Life in Children and Adolescents (IQLC; Mattejat & Remschmidt, 2006) as well as the Clinical Global Impression (CGI; National Institute of Mental Health) was used between group sessions and the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA; Honosca-Team, 2009) was completed monthly. The study found that group therapy had many benefits, such as allowing group members to learn from one another by giving and receiving feedback. This helped reduce the stigmatization of personal struggles with depression, and was also more economical (Straub et al., 2014). One
disadvantage of using CBT in group therapy was that individuals who were socially anxious or shy did not get as much attention as other group members (Oei & Dingle, 2008).

CBT, as seen above, has been proven to be an effective treatment method for adolescent depression (Beck, 2005; Straub et al., 2014; Stark et al., 2012) that can result in lasting adolescent depression remission (Reinecke et al., 1998). There are other effective individual treatment methods that can be used effectively with adolescent depression, such as dialectical behavior therapy (DBT) (James, Winmill, Anderson, & Alfoadari, 2011; Miller, Rathus, & Linehan, 2007; Rathus & Miller, 2015).

**Dialectical Behavior Therapy (DBT).** DBT was originated in 1991. The first randomized trial to demonstrate the DBT treatment effectiveness involved women diagnosed with borderline personality disorder (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991). Their study showed the effectiveness of reducing suicidal behaviors with the implementation of DBT, which was the first empirically validated study for that population (Miller, 2015). Two years later, Linehan (1993) began publishing DBT and skills training manuals based on the treatment used in her 1991 outcomes study (Miller, 2015). Revisions to the DBT manuals were made in 2000 which included DBT’s use with adolescents, domestic violence, forensic settings, substance abuse, and the treatment of elderly struggling with depression and personality disorders (Miller & Rathus, 2000). A recent major development of DBT is its use with adolescents who are suicidal (Miller, Rathus, & Linehan, 2007; Rathus & Miller, 2015). According to Miller (2015), DBT has become a gold-standard treatment for individuals struggling with suicidal behaviors and borderline personality disorder. In 2015, Linehan developed a new DBT skills manual to
address the varied clinical needs of novel populations utilizing DBT (Miller, 2015). Today, DBT has become a treatment approach for adolescents across many treatment settings (Cook & Gorraiz, 2015).

A study completed by Ricard, Lerma and Heard (2013) evaluated the impact of DBT treatment for adolescents who struggled with at least one of the six behavioral distress domains, one of which was depression. The treatment was provided through a skills group within a disciplinary alternative education program (DAEP). The study consisted of 125 students from a campus along the Southern Gulf Coast of the United States, who received an average of six DBT group therapy sessions. Each adolescent and their family completed a Youth Outcome Questionnaire (YOQ-30.2; Wells, Burlingame, Lambert, Hoag, & Hope, 1996) to assess their treatment progress. The youth outcome questionnaire (YOQ) consists of six domains of behavioral distress (somatic complaints, social isolation, aggression, conflict, hyperactivity, & depression) (Ricard et al., 2013). The study outcome showed significant improvements in behavior symptoms from pre- to post-treatment with parents reporting a larger discrepancy between pre- and post-test scores (Ricard et al., 2013). More specifically, the Ricard et al. (2013) study provides empirical support for the effectiveness of DBT skills groups for adolescents’ struggling with depression and behavioral symptoms. DBT, according to this research study, is an effective (group and individual) treatment for depressed adolescents (Cook & Gorraiz, 2015; Ricard et al., 2013).

James et al. (2011) conducted a study to determine the effectiveness of DBT when working with depressed adolescents who exhibit self-harm thoughts and have a history of self-harm behaviors. The study involved 25 adolescents between the ages of
13 and 17 years of old from the look after care (LAC) system in Oxford, London, who agreed to engage in DBT treatment. The Beck Depression Inventory (BDI; Beck, 1979) and the Beck Hopelessness Scale (BHS; Beck et al., 1974) were used, along with the Attachment Style Questionnaire (ASQ; Feeney, Noller, & Patty, 1993) and the Children’s Automatic Thoughts Scale (CATS; Schniering & Rapee, 2002), as well as the Comprehensive Quality of Life Scale (McCabe & Cummins, 1998). The adolescents received DBT treatment by attending a weekly 1-hour individual therapy session and a weekly 2-hour DBT skills group. The adolescents were also provided with telephone consultations for management of environment and life stressors. The DBT treatment incorporated four core modules: (a) mindfulness focusing on acceptance, (b) distress tolerance to manage extreme emotions in a moment, (c) interpersonal effectiveness to manage and sustain relationships, and (d) emotional regulation to manage emotions long term (James et al., 2011). James et al. (2011) found that there was a significant reduction in scores for depression and hopelessness, as well as frequencies in self-harm events and that at the end of treatment 14 adolescents had completely stopped self-harming. This study provides empirical evidence in support of the effectiveness of DBT treatment for reducing depression, self-harm, and hopelessness.

DBT research, as seen above, is growing in its identified effectiveness in treatment for adolescents’ depression and other mental health struggles. Today, DBT is often accompanied by other psychotherapies that work to assist in treating adolescent depression. There are other treatment methods that have proven to be effective when dealing with adolescent depression, such as psychodynamic therapy.
**Psychodynamic therapy.** Psychodynamic therapy focuses on gathering new information with and from the client. This is done through a structured and responsive interaction to create rational experiences where unconscious material emerges (Doran, 2013). Leichsenring, Abbass, Luyten, Hilsenroth, and Rabung (2013) reported that across many meta-analysis studies, long-term psychodynamic therapy is equally effective as DBT in relation to self-reflective functioning (Clarkin, Levy, Lenzenweger, & Kernberg, 2007; Levy et al., 2006). It is also equally effective as long-term CBT (Smit et al., 2012), and long-term family therapy (Smit et al., 2012). However, there is still a need for continued research on the effectiveness of psychodynamic therapy with adolescents and more specifically, adolescent depression (Leichsenring et al., 2013).

One randomized control study conducted in London, Athens, and Helsinki by Trowell et al. (2007) provided psychodynamic therapy to 72 youths between 9 and 15 years of age. Participants were referred from community child mental health services and were given the Child Depression Inventory (CDI; Kovacs, 1981) and the Kiddie-SADS (Chambers et al., 1985), as well as given a Demography Interview (Kolvin et al., 1991). In addition, this study used the Moods & Feelings Questionnaire (MFQ; Angold, et al., 1995) and the Children’s Global Assessment Scale (C-GAS; Shaffer, et al, 1983). The study results indicated that 75% of the participants fully recovered directly after the therapy as well as at a 6-month follow-up (Trowell et al., 2007). Psychodynamic and family therapy were found to also significantly reduce double depression (major depression with comorbid dysthymia) as well as other comorbid conditions. The therapy in Trowell et al.’s (2007) study consisted of an average of 25 individual sessions and 12 concurrent parents’ sessions following the manual based treatment by Malan and Osimo.
(1992) and Davenloo’s (1978). The Trowell et al. (2007) study found the effectiveness of psychodynamic therapy for depressed adolescents.

Leichsenring et al. (2013) conducted a meta-analysis of 12 randomly controlled trials that utilized psychodynamic psychotherapies. There was no information provided in the literature regarding the participants’ ages and/or measures used. The 12 randomly controlled trials reported that the number of participants for the studies ranged from 26 to 326. Leichsenring et al. (2013) reported that their meta-analysis found a difference between short-term (STPP) and long-term (LTPP) psychodynamic psychotherapies. Specific differences were that the short-term treatment was effective for acute depression or other acute mental health disorders. However, the long-term treatment was more effective for more severe depression or other severe mental health disorders (Leichsenring et al., 2013). Leichsenring et al. concluded that psychodynamic psychotherapies are effective in treating mental health disorders, but the number of sessions needed is dependent on the severity of the mental health disorder.

Individual focused psychotherapy (CBT, DBT and psychodynamic therapy), as seen above, based on the existing literature, are effective individual treatment methods for adolescent depression. (Leichsenring et al., 2013; Trowell et al., 2007).

**Family Therapy**

Family therapy is another form of treatment used today to treat adolescent depression (Larner, 2009; Stark et al., 2012). According to the literature, family therapy is a critical component of adolescent depression treatment because it is based on the belief that family dynamics influence many factors of adolescent depression (Spence et al., 2014; Stark et al., 2012). For example, parental psychopathology, marital conflict,
and negative parent-adolescent communication are all family factors that can impact the adolescent’s depression and their treatment (Parra et al., 2011). Specific forms of family therapy can range from: (a) General Systems Therapy (Deacon & Davis, 2001; Lebow, 1987; Mendenhall, Pratt, Phelps, & Baird, 2012; Shumway, Kimball, Korinek, & Arredondo, 2007; Spronck & Compernolle, 1997); (b) Family-Focused Interventions (FFI; Asarnow, Scott, & Mintz, 2002; Jacobson, Dobson, Fruzzetti, & Schmaling, 1991; Koerner, Prince, & Jacobson, 1994; Lewinsohn, Clarke, Hops, & Andrews, 1990; Miklowitz & Goldstein, 1997; Tompson et al., 2007); (c) Contextual Emotional-Regulation Therapy (CERT; Kovacs et al., 2006); and (d) Family Psychoeducation (FPE; Sanford et al., 2006; Stark et al., 2012).

**General Systems Therapy.** Family factors impacting the adolescent’s expression and maintenance of depression can originate from different aspects unique to the specific family (Spence et al., 2014). This being evident, the General Systems Therapy provides a foundation when working with a family and an adolescent struggling with depression symptoms. General Systems Therapy works with the family as a whole and begins assessing and understanding the uniqueness of the family and intervenes when necessary (Mendenhall et al., 2012). Once these unique qualities are understood, adjustments are made and skills developed so the depression symptoms can be managed more effectively (Deacon, & Davis, 2001; Lebow, 1987).

General Systems Theory incorporates the understanding that a system is to be forever interacting, adapting, and changing (Mendenhall et al., 2012). The goal of the family therapist is to work with one part of the larger whole or the whole itself. Each challenge or problem, from a General Systems Therapy approach, is viewed by looking
at the impact the individual’s system has on the individual and its maintenance of the current problem (Cottone & Greenwell, 1992; McLeod, Goch, & Nowicki, 1986; Minuchin, 1974). Systems therapy works to assess each level of interaction within the biology, individuality, and family and how each of these interacts with one another (Spronck & Compernolle, 1997). Understanding and intervening at each level allows for specific biological factors that may be impacting the behaviors to be addressed, as well as working to improve individual behaviors. In addition, work must be done to adjust specific unbalances that may be occurring at the family system level (Spronck & Compernolle, 1997). General Systems Therapy not only addresses each level of interaction (biological, individual, and family) but assesses and improves the interactions at each level in which the problem is being maintained (Deacon, & Davis, 2001; Lebow, 1987). Shumway, Kimball, Korinek, and Arredondo (2007) explained that General Systems Therapists first work to understand the process in which the family interacts and functions. Second, they work to respect the powers within the family and how family members interact with one another. Thirdly, the systems therapist provides feedback and interventions to alter the faulty patterns or interactions.

**Family-focused Intervention (FFI).** FFI is a combination of family systems and cognitive behavioral models that work primarily with preadolescent youth struggling with depression and their families (Stark et al., 2012). The family’s involvement with the CBT portion of the family-focused intervention centers around psycho-education, behavioral activation, expressed emotion, problem solving, communication, and contingency management (Hughes & Asarno, 2011). In addition, family-focused
intervention focuses on interpersonal techniques that help families change unproductive interactional patterns (Stark et al., 2012).

In Thompson et al.’s (2007) study using FFI with nine children, each family initially received educational materials on effective family functioning. The families were then asked to work out scenarios using the information provided, which was followed by applying the skill to their family situations through role-play. The goal of this treatment was to improve parent-child communication, practice new ways of relating to one another, help families find ways to problem solve different family stressors, and improve ways the family can support one another and cope with stress. In the study by Thompson et al. (2007), they found that six of the nine children no longer met the criteria for a depressive disorder following the acute treatment phase, and seven of the nine children recovered 9 months after treatment.

**Contextual Emotion-Regulation Therapy (CERT).** CERT is known as an individually adaptive program that assists youth in developing the ability to self-regulate dissatisfying and stressful situations that typically lead to depression (Kovacs et al., 2006). Adolescents are taught ways to cope with stress and unhelpful emotions and develop productive, emotional responses. The focus of CERT is to help the depressed adolescent learn emotional regulation skills in the cognitive, behavioral, physiological, and social/interpersonal domains, providing the youth with the ability to reduce depression symptoms. CERT treatment incorporates the parents by having them be “assistant coaches” to the therapist (Stark et al., 2012). Parents are provided a manual with various techniques to help their child in the domains of problem-solving, behaviors, cognitions, interpersonal interactions, and focus (Stark et al, 2012). The CERT manual
focuses on working with children between ages 7 and 12 struggling with depression (Kovacs & Lopez-Duran, 2012). An important component of CERT is knowing the developmental stage of the adolescent, so treatment can be provided in a developmentally appropriate manner.

Another CERT study was conducted by Kovacs et al, (2006). This CERT’s pilot was done with 20 participants (youths between ages 7 to 12 years old, diagnosed with dysthymic disorder [DD]). The study consisted of 20 therapy sessions over a 10-month period of time, focusing on the four distinct domain phases (cognitive, behavioral, physiological, and social/interpersonal). Fifteen of the 20 youths completed the trial and 53% of the children reached full remission from DD, and an additional 13% reached partial remission. The pre- and post-tests showed a decrease in self-report of anxious and depression symptoms (Kovacs et al., 2006). Kovacs and Lopez-Duran (2012) reported that initial CERT studies have shown that this treatment approach is effective. CERT is a therapy approach that equips parents with insight and skills through psychoeducation to more effectively manage their adolescent’s depression.

**Family Psychoeducation (FPE).** FPE is a form of treatment that is known as an adjunctive treatment. It works to increase the parent’s knowledge and understanding of the adolescent’s depression as well as the depression’s impact on the family. It also attempts to educate the family on how they impact the adolescent’s depression symptoms (Stark et al., 2012). FPE focuses on improving coping and problem-solving skills, increasing supportive interactions, strengthening family communication, and cultivating better management of crises and relapses. It also helps the family and adolescent maintain positive changes (Stark et al., 2012).
Sanford et al. (2006) conducted an exploratory study using FPE. The study consisted of 31 adolescents, with 16 of the adolescents having family psychoeducation as part of their treatment. The adolescents participated in 12 sessions that progressed through five phases of treatment. In phase one, each participant was given the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987) as well as the Structured Social Adjustment Scales (SSAI; McCleary & Sanford, 2002). Families were also given the Family Assessment Device (FAD; Epstein et al., 1983) and the Adjective Checklist (ACL; Friedmann & Goldstein, 1993). Secondary outcomes to assess the adolescent’s global functioning were completed through the Children’s Global Assessment Scale (CGAS; Shaffer et al., 1983) which was rated through the Client Satisfaction Questionnaire (CSQ; Larsen et al., 1979). Phase two, the next three therapy sessions, was when the family was provided with education on adolescent depression, with the purpose of developing greater understanding of the adolescent’s depression and fostering greater empathy. Phase three worked on improving family communication and parent-adolescent interactions. Phase four, session numbers 8 through 11, consisted of developing family problem-solving skills. Phase five, the last phase, consisted of reviewing and practicing the acquired skills, having discussions of what challenges or obstacles could arise, and how to overcome and continue to improve. Sanford et al. (2006) reported that families that get FPE along with treatment as usual (TAU) had improvements in family relationship and social functioning, whereas families who only participated in TAU did not show significant improvements. Furthermore, 3 months after treatment 75% of families that completed the typical therapeutic treatment and family
psychoeducation no longer met criteria for depression, compared to 47% of the control group.

Family therapy treatment is an important method for dealing with adolescent depression, and often is not addressed in the literature. Family therapy is a treatment method that provides support for the adolescent and his/her family while new skills and behaviors are developed.

In summary, when looking at adolescent depression treatment, each of these three major forms (psychopharmacology, psychotherapy, and family therapy) of treatment for adolescent depression are, according to the literature, believed to have some effectiveness on the management and reduction of adolescent depression (Carr, 2008; Davey, Duncan, Kissil, Davey, & Fish, 2011; Hall, 2006; Hammad, Laugren, & Racoosin, 2006; Nichols, 2011; Stark et al., 2012; Vitiello, 2009; Weisz et al., 2006; Weitzman, 2006), and should be continually researched.

Summary

The literature review thus far focused on several aspects of adolescent depression. Specifically for the purpose of this study, focus was on adolescent depression prevalence and general adolescent depression. In addition, this literature review looked at adolescent depression symptoms and risk factors. Lastly, adolescent depression treatment methods were explored, looking at psychopharmacology, psychotherapy and family therapy. The family therapy literature, focusing on adolescent depression treatment, highlights the reality that family dynamics influence many factors of adolescent depression (Spence et al., 2014). More specifically, this influence, which also can be addressed as an interconnectedness effect, has been well described in system theory.
**General Systems Theory**

Much of General Systems Therapy has its foundation in the work of Ludwig Von Bertalanffy (1968) and Gregory Bateson (1972), specific to their discussions regarding the different types of systems (systems being defined as: elements in standing relationships) and their functions (Keeney, 1981). The focus of Von Bertalanffy (1968) was on how random a system can be, as well as how a system exchanges energy, more specifically, how the system can be self-corrective through feedback (Moyer, 1994). Family systems theory is built upon the concept of “feedback loops” in which the behavior of one member in the system impacts the behavior of another member in the system. More specifically, in General Systems Therapy the individual members of the system, such as a family, are all connected and joined together in a web of relationships.

The four major concepts involved in General Systems Therapy are: (a) motion, (b) form, (c) relationship, and (d) transformation (Bopp & Weeks, 1984). Motion is the concept of fluidity and change which leads to something developing or transforming. Form refers to the functioning properties of a system or family in which the “wholes are not reducible to the sum of its parts” (Bopp & Weeks, 1984, p. 53). The concept of relationship is understood to be interconnected and able to establish meaning. For example, a family member’s definition of the relationship effects the interactions of the system members. Additionally, the relationships also define the individual members. Transformation is known as the “integration of movement and form; specific to the way change (movement) occurs in relation to stability (form)” (Bopp & Weeks, 1984, p. 54). These four concepts are utilized to better understand and integrate General Systems Therapy into treatment.
General Systems Therapy focuses on the link between family members, such as a parent and adolescent. More specifically, it focuses on, the parents’ choices and functioning and how they affect the adolescent’s choices and functioning and vise-versa. As was discussed above, this interaction is known as a “feedback loop” which helps to conceptualize and explain how family members affect one another (Moyer, 1994). General Systems Therapy understands that for a family system to function effectively, it must have the flexibility to alter unproductive feedback loops.

Another concept in General Systems Theory is the concept of “circular causality” in which family members not only act, but are acted upon (Moyer, 1994). From a family systems point of view, each family member effects and impacts another. For example, the adolescent affects the parent-adolescent relationship because he/she has a lack of desire for a relationship with his/her parents (Chhabra & Sodhi, 2012; Jun, Baharudin, & Jo-Pei, 2013), has a negative perception of his/her parent (Shaw, Dallos, & Shoebridge, 2009) has symptoms of depression (Curran & Datto, 2014), or simply lacks the desire to communicate with his/her parents (Frijns, Keijsers, Branje, & Meeus, 2010). Because of these perceptions and feelings, conflict and tension most likely would arise within the family system. In this example, the adolescent behaviors and/or parent perceptions of the adolescent behavior most likely would affect the parent and other family members, and might lead to unproductive communication and no support for the adolescent. In addition, there are parental factors that specifically effect the family system, such as: the parents own mental health issues (Carr, 2008; Goodyer, 2001; Tully, Iacono & McGue, 2008; Wilkinson, Harris, Kelvin, Dubicka, & Goodyer, 2013), parent substance abuse (Essau, 2004; Halloran, Ross, & Carey, 2002), poor coping skills (Auerbach & Ringo
Ho, 2012; Larner, 2009), and ineffective communication skills (Amato, 2001; Brenning, Soenens, Braet, & Bal, 2012; Chhabra & Sodhi, 2012; Frijns, Keijsers, Branje, & Meeus, 2010; Latina, Giannotta, & Rabaglietti, 2015).

In summary, General Systems Theory and the importance of the interconnectedness effect of family members in a family system are important considerations when dealing with adolescents with depression symptoms. For the reasons that as adolescents and family members function within a family system, an interconnectedness effect occurs among family members. Communication between family members, such as a parent and an adolescent with depression, can have an interconnectedness effect as seen above. In addition, communication can also be a protective factor and therefore should be further explored.

**Communication**

Communication, which is the exchange of information, needs to be addressed when looking at adolescent depression. As seen above, General Systems Theory acknowledges the importance of the interactive effect of family members. Adolescents with depression symptoms are believed to have an interconnectedness effect with their family and more specifically their parent(s). One immediate effect is the adolescent’s willingness and desire to communicate with parents or family (Frijns et al., 2010; Latina et al., 2015). Many times, parents are uncertain about how to best communicate with their adolescent struggling with depression which often leads to conflict and tension (Miller-Day, McManus, & Matsunaga, 2007). Other times, families have poor communication within the family, which can exacerbate the adolescent’s depression symptoms (Chhabra & Sodhi, 2012; Miller-Day et al., 2007). Shaw, Dallos, and
Shoebridge (2009) discussed that adolescents’ with depression symptoms (such as sadness, hopelessness, irritability, and worthlessness) frequently struggle to engage in effective parent-adolescent communication. Many adolescents struggle due to feeling that they are unable to step out of the parent-adolescent relationship or communication (Shaw et al., 2009). In following, the literature will focus on two areas: (a) parent-adolescent communication and (b) depression symptom development and communication.

**Parent-Adolescent Communication**

Adolescence is a time of many cognitive, emotional, physical, and attitudinal changes that can make it challenging for any family to navigate (Chhabra & Sodhi, 2012). Conflict is common between parents and adolescents as they navigate through these years. Poor family communication is a leading factor for adolescent physical and mental health issues (Brenning et al., 2012; Chhabra & Sodhi, 2012; Frijns, et al., 2010; Latina et al., 2015; Shaw et al., 2009; Tilton-Weaver & Marshall, 2008), increasing tension in the family environment and the lack of skill development to manage stressful life events (Curran & Datto, 2014; Yu et al., 2006). Family communication lends itself to providing an opportunity for a family to support one another through a difficult situation, but poor communication can exacerbate an already difficult situation (Parra et al., 2011; Yu et al., 2006). Adolescent depression is one of life’s difficult challenges and requires effective parent-adolescent communication. Effective parent-adolescent communication allows for the management of family conflict and the development of problem-solving skills (Curran & Datto, 2014). When parent-adolescent communication is not effective, adolescent depression increases which consequently amplifies the
inability to manage symptoms. Positive parent-adolescent communication and a supportive environment are protective factors that allow the adolescent to deal with emotional distresses more effectively (Latina et al., 2015). Communication allows for navigation through times of depression and impulsive behaviors. Open family communication provides the adolescent with the ability to develop into his/her own person within the context of a supportive relationship (Van Dijk et al., 2014). Family communication was seen throughout various studies to be a protective factor against developing internalized symptoms (i.e., depression) (Ivanova & Israel, 2005; Latina et al., 2015; White, Bruce, Farrell, & Kliever, 1998).

There are many details specific to parent-adolescent communication, and Frijns, Keijsers, Branje, and Meeus (2010) discussed some of these aspects in their study. Frijns et al. (2010) discussed the importance of understanding the difference between disclosure and secrecy within parent-adolescent communication. This difference is such that an adolescent may talk about a topic discussed at school or a new friend (disclosure) but neglect to share (secrecy) the “F” they received in Math. Frijns et al. (2010) reported that what is disclosed may also depend on the parent’s or family’s focus. For example, a parent may be more focused on their youth’s social relationships and not their grades. This influences the adolescent to share more regarding their relationships than their grades. Frijns et al. (2010) defined that non-disclosure may be linked to the parent’s focus and not an adolescent’s attempt to be defiant or secret. Pennebaker (1989) stated that “Active inhibition of disclosure” (as cited in Frijns et al., 2010; p. 262 ) is a choice to keep a secret instead of not disclosing a topic due to it not being a focal point of the adolescent-parent communication.
Frijns et al. (2010) conducted a study to determine if an adolescent’s secrecy was associated with increased internalizing and externalizing problems compared to adolescents who had open communication (disclosure) with their parents. Their study was an active longitudinal study consisting of 309 Dutch adolescents (males = 149; females = 160) and their parents (Conflict and Management of Relationships – CONAMORE; Meeus et al., 2004). Data was taken annually over 4 consecutive years.

The adolescent disclosure scale (Kerr & Stattin, 2000; Stattin & Kerr, 2000) was utilized to measure voluntary and spontaneous disclosure to parents. Depression symptoms were measured through the Children’s Depression Inventory (CDI; Craighead et al., 1998) while adolescent delinquency was measured through a 16-item self-report questionnaire (adjusted from Baerveldt, Rossem van, & Vermande, 2003). Frijns et al. (2010) found that secrecy from parents was impactful on adolescent depression and delinquent behaviors. The study reported that secrecy in early adolescence had a direct link to depression symptoms (Frijns et al., 2010). The link was less direct in older adolescents (Frijns et al., 2010). It is speculated that this is due to parents being a major support in early adolescence, whereas in older adolescence, teens turn their focus to gaining support from peers (Frijns et al., 2010). In older adolescence, secrecy was still connected with delinquent behaviors. These behaviors of secrecy were maintained by the adolescence, because they knew their parents would not approve of their actions. Frijns et al. (2010) provided insight on the importance of maintaining open communication in the parent-adolescent relationship. The open communication allows adolescents to avoid an increase in depression symptoms and delinquent behaviors due to having the support,
guidance, and encouragement that is provided through their parent and family relationships.

In summary, Frijns et al. (2010) discussed the importance of secrecy and disclosure due to identifying the positive impact of adolescents talking to their parents about their days or life events. Their study identified that adolescents who are limited in their disclosure (or high in secrecy) to their parents have an increase in internal and external struggles (Frijns et al., 2010).

**Depression Symptom Development and Communication**

This section will discuss the specific impact communication can have on development of depression symptoms. Specific focus will be on existing research, with greater detail in the areas of: (a) communication and adolescent symptoms of depression, (b) parent-adolescent communication, relationship and behaviors, (c) communication and self-concepts, (d) parent-adolescent communication and its protective factors, (e) communication, depression, and risky behaviors, (f) parent-adolescent communication, depression and self-harm, and (g) parent-adolescent communication and suicidal ideation. The section will conclude with discussing the overall effect parent-adolescent communication has on adolescent depression symptoms.

**Communication and adolescent symptoms of depression.** Curran and Datto (2014) conducted a study to assess the impact of parent-adolescent communication on adolescents’ report of depression symptoms. Their study consisted of 30 adolescents (male = 3; female = 27) between the ages of 14 and 18 years old (Mean = 15.97; SD = 1.06) seeking laparoscopic gastric band surgery. In the Curran and Datto (2014) study, both parents and adolescents completed the Behavior Assessment System for Children,
Second Edition (BASC-2; Reynolds & Kamphaus, 2004) to assess anxiety and depression for the adolescent. The BASC-2 was also utilized to assess family communication and parent-adolescent relationship through the functional communication subscale and relations with parent subscale. The families completed the studies at two time points, one at the beginning of the study (Time 1) and again immediately prior to surgery (Time 2), which was on average 8.8 months apart. The Curran and Datto (2014) study found that poor functional communication is a risk factor for increased depression in adolescents seeking weight loss surgery. The study also found that an adolescent’s perception of having a poor relationship with their parent was a predictor for levels of depression symptoms at both entry to the study and prior to surgery. Therefore, Curran and Datto (2014) found that parent-adolescent communication plays a part in the increase or decrease in depression symptoms for adolescents seeking bariatric surgery.

**Parent-adolescent communication, relationship and behaviors.** Adolescents are in need of good relationships with their parents to navigate their own physical, social, and psychological changes. Adolescents who have good relationships with their parents are less likely to engage in risky behaviors (Chhabra & Sodhi, 2012). Good relationships are developed and maintained through effective parent-adolescent communication. Chhabra and Sodhi (2012) conducted a study with 500 males between the ages of 12 and 18 years of age (250 from rural areas and 250 from urban areas) in Amritsar, India. Their study consisted of a self-developed questionnaire to gather demographic and family information (i.e., age, income, education, family size, school, family, psychosocial and personality, substance use, and sexual behavior problems). Chhabra and Sodhi (2012) found that parent-adolescent communication, family structure, parent values, and parent
monitoring are important factors that influenced the choices and behaviors of their adolescent sons. If the adolescent had higher parent support and communication they were more likely to not engage in destructive choices or behaviors. If there is low parent support and communication, there is an increase in psychosocial problems and negative behaviors in these critical years of development (Chhabra & Sodhi, 2012). As Chhabra and Sodhi’s (2012) study reflected, family communication is an important factor in the psychosocial development of adolescents. Their study also reflected the difference in how males and females internalize or externalize poor parent-adolescent communication. Males tend to have external behaviors (defiance, aggression) whereas females more often internalize (depression, anxiety) their struggles.

**Communication and self-concepts.** Communication with parents impacts an adolescent’s development and concept of themselves from early adolescence up to adulthood (Van Dijk et al., 2014). Van Dijk and colleagues (2014) found that if parents and adolescents can communicate well through the teenage years, the youth will have a better self-concept of themselves. This improved self-confidence provides support to manage the twists and turns of adolescence and young adulthood. Specifics of open communication are seen through communication that involves sharing of stories, acceptance towards the adolescent’s thoughts/views, as well as active listening (Van Dijk et al., 2014). If parents and adolescents have poor communication, the youth will have a lower self-concept, which is associated with an increase in depression symptoms (Van Dijk et al., 2014). Van Dijk et al. (2014) completed a study of 323 Dutch youth (male = 158; female = 165) between the ages of 12 and 15 years old. The study utilized the Self-Concept Clarity Scale (Campbell et al., 1996) to measure the adolescent’s self-beliefs and
the children’s depression inventory (CDI; Craighead et al., 1998) to measure the adolescent’s depression. Their study also utilized the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997) to assess anxiety and the Open Communication Scale (Jackson, Bijstra, Oostra, & Bosma, 1998) to measure parent-adolescent communication. Van Dijk et al.’s (2014) report found that across all adolescent ages (12-18 years old) there was a correlation between open communication between parents and adolescents and depression symptoms. It is suspected that lack of open communication leads to less warmth and support as well as parental-adolescent withdrawal within the relationship (Van Dijk et al., 2014). Less warmth and lack of relationship with parents increase internalization of problems (depression) in the adolescent (Brenning et al., 2012; Tilton-Weaver & Marshall, 2008).

**Parent-adolescent communication and its protective factors.** Parent-adolescent communication is found to provide a protective factor for adolescents specific to their mental health development and behavioral choices (Kam, Castro, & Wang, 2015; Yu et al., 2006). Kam, Castro, and Wang (2015) completed a study that provides support for the protective factors of productive and consistent parent-adolescent communication. Their study consisted of 247 Mexican-heritage sixth to eighth grade students (male = 138; female = 109) from three Illinois public schools between the ages of 10 and 14 years old (Mean = 12; SD = 1.1). Kam et al. (2015) study used shortened scales due to time restrictions for the students. The Global Discrimination Scale (Whitbeck, Hoyt, McMorris, Chen, & Stubben, 2001) was utilized to assess perceived discrimination. Seven items from the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) were used to assess depression, and drug use was measured through direct
questions regarding frequency of use. Parent-adolescent communication was measured by taking six items from the Target Parent-Child Communication about Alcohol Scale (Miller-Day & Kam, 2010). Kam et al. (2015) found that negative mother-child and father-child communication significantly impacted adolescent depression symptoms. Kam et al. (2015) also identified that in early-stage adolescence in the Mexican culture, high parent-adolescent communication was a protective factor against the harmful effects of depression symptoms (i.e., alcohol, marijuana, and cigarette use). Frequent parent-adolescent discussions discouraging the use of drugs and alcohol were a protective factor against drug and alcohol use for adolescents managing depression (Kam et al., 2015).

**Communication, depression, and risky behaviors.** Parent-adolescent communication is an influential factor on adolescent depression and risky behaviors. Yu et al. (2006) completed a study of 752 Bahamian sixth-grade students (males = 343; females = 409) and 678 of their parents. Their study consisted of the Bahamian Youth Health Risk Behavior Inventory (BYHRBI) and adaption of the Youth Health Risk Behavior Inventory (Stanton et al., 1995) to measure risk taking behaviors in the youth. The Children’s Depression Inventory (CDI; Kovacs, 1982, 1991, 1992) Short Form was used to screen adolescents for depression symptoms. Both the parents and youth completed the Parental Monitoring Scale (Silverberg & Small, 1991) to assess perceptions of parental monitoring and the Parent-Adolescent Communication Scale (McCubbin & Thompson, 1987) to measure perception of communication. In their study they defined risky behaviors as the adolescents’ engaging in self-destructive behaviors, unprotected sexual intercourse, multiple partners, substance use, and violent behaviors. Yu et al. (2006) found that depressed adolescents were more likely to perceive their
communication with their parents as closed and more problematic (Yu et al., 2006). The adolescents that perceived their parent-adolescent communication as being problematic often felt their parents were demanding and neither warm nor democratic. Youth who had higher expectancy of engaging in risky behaviors had higher levels of impaired parent-adolescent communication. Youth depression already increases the risk of adolescents engaging in risky behaviors, and if poor parent-adolescent communication is present the prevalence of risky behaviors and depression increases (Yu et al., 2006). Their study found there to be no difference between parents of non-depressed and depressed adolescents regarding the parents’ perception of communication and monitoring (Yu et al., 2006). However, there was greater degree of difference between depressed and non-depressed adolescents regarding the youth’s perceptions of open communication within the parent-adolescent relationship. Overall, Yu et al. (2006) posited that positive parental-adolescent communication as perceived by the adolescent increases the youth’s resiliency (Dutra et al., 2000).

**Parent-adolescent communication, depression and self-harm.** Parent-adolescent communication has a negative correlation between adolescent depression symptoms and self-harm behaviors (Latina et al., 2015). Latina et al. (2015) completed a study with 709 (332 = females; 377 = males) adolescents attending three different types of schools in northern Italy. Their study utilized a six-item scale to measure self-injurious behaviors (Prinstein et al., 2008) and a two-question measure regarding adolescents ease in communicating with their parents (Ciairano, 2004). Depression symptoms were measured with the Short Mood and Feeling Questionnaire (SMFQ) (Angold et al., 1995). The study by Latina et al. (2015) demonstrated that if the
adolescent communicated with their parent about their depression or self-harm urges there was a decrease in likelihood of self-harm behaviors and depression symptoms. The Latina et al. (2015) study also found that if the adolescent did experience depression symptoms, but found it easier to talk with their parent(s), they were less likely to engage in self-harm behaviors. This information demonstrates that an adolescent’s positive perception of parent-adolescent communication provides the support needed to manage depression symptoms and self-harm behaviors. Not only does good parent-adolescent communication allow for management of self-harm behaviors, it also impacts their self-confidence up through early adulthood (Latina et al., 2015; Van Dijk et al., 2014).

**Parent-adolescent communication and suicidal ideation.** Parent-adolescent communication has a moderating effect for adolescents who struggle with depression (Lai-Kwok & Shek, 2010). A specific example of this is seen in a study by Lai-Kwok and Shek (2010) regarding adolescents who are struggling with suicidal ideation. Lai-Kwok and Shek’s (2010) study consisted of 5,557 Chinese students from 68 secondary schools in Hong Kong. Their study consisted of students between the ages of 11 and 18 years old with a mean of 13.87 (SD = 1.47). The Hopelessness subscale of the Chinese Hopelessness Scale (C-HOPE; Shek, 1993) was utilized to assess levels of hopelessness in the adolescent. Parent-adolescent communication was assessed through the Father-Adolescent Communication Scale (FACS; Shek, Lee, & Lee, 2006) and the Mother-Adolescent Communication Scale (MACS; Shek et al., 2006). Their study utilized the Suicide Ideation Subscale (C-SIS; Tse & Bagley, 2002) of the Suicide Risk Scale for Hong Kong students to assess the suicide risk. Their study reported that families that associate change with hostility and conflict were reported to have poor family
communication compared to families who were supportive when change occurred. Therefore, an adolescent who reported having better communication had a lower score on the suicide scale (Lai-Kwok & Shek, 2010). The study reported that mother-adolescent communication had a larger moderating effect than the father-adolescent communication regarding the adolescent’s suicide ideation. However, the study also found that open parent-adolescent communication serves as an overall mediator of the adolescent’s suicidal thoughts or behaviors (Lai-Kwok & Shek, 2010). Specifically, if there was a higher level of parent-adolescent communication reported, there was a lower level of adolescent suicidal ideation. Lai-Kwok and Shek reported that their study fell in line with previous research where suicidal adolescents reported having less frequent and less satisfying parent-adolescent communication (Everall, Bostik, & Paulson, 2006).

In summary, as was revealed in the review of literature, focusing on parent-adolescent communication is a common discussion point in adolescent’s report of depression. A common theme in the literature was the impact of the adolescent’s perceived view of family communication on their report of depression symptoms (Latina et al., 2015). Much of the reviewed literature found that the adolescent’s perception of family communication was significantly correlated to the adolescent’s report of depression symptoms (Van Dijk et al., 2014). When communication was productive and present in the parent-adolescent relationship, communication was seen as being a protective factor for adolescent’s choices and behaviors (Kam et al., 2015: Yu et al., 2006). The reviewed literature demonstrated that open family communication is important for a youths’ skill development in order to manage internal and external emotions that come from life’s events and challenges (Brenning et al., 2012; Chhabra &
Sodhi, 2012). However, poor family communication, if not altered, will continue to increase depression symptoms and external struggles in the adolescent (Frijns et al., 2010; Latina et al., 2015).

Summary

This study was conducted to address the growing problem of adolescent depression in this country. Adolescent depression and depression symptoms (e.g., engagement in risk taking behaviors, self-harm, suicidal thoughts, low self-concepts, etc.), as was illustrated through the literature review, are believed to be impacted by the parent-adolescent communication. From a family General Systems Theory approach, it would be hypothesized (and on a limited basis, as supported by the literature) that adolescent depression symptoms are impacted by the parent-adolescent perceived communication. The field of family therapy, however, has thus far only given limited focus to adolescent depression. There is a lack of existing research in the field of family therapy that focuses on the relationship of adolescent depression, more specifically the perceived adolescent depression symptoms and perceived parent-adolescent communication impact, something that this study has attempted to address.
CHAPTER III

METHODOLOGY

An explanation of the research methodology utilized to identify the relationship between an adolescent’s and parents’ report of family communication and adolescent depression within an intensive therapy service program, are presented in Chapter III. This chapter utilizes methods that assess the impact parents’ and adolescents’ reports of family communications has on the adolescent’s report of depression symptoms. The research design, setting, data collection procedures, participants, a description of the instruments and their history of use, the research questions and hypothesis, and the statistical analysis will also be provided.

Statement of Problem

The present study examined if there is a significant relationship between parent and adolescent reports of family communication and adolescent’s report of depression symptoms. In addition, the study specifically analyzed how much variance is accounted for between the parents’ and adolescents’ reports of family communication on the adolescents’ report of depression symptoms.

Research Design

The design of this study was a survey research design that was part of a larger study conducted at a midwestern pediatric hospital. The larger study in the intensive treatment program looked at the impact that incorporating family therapy into treatment
has on the adolescent’s report of mental health symptoms or behaviors. This study examined the association between parents’ and adolescents’ reports of family communication and the adolescent’s self-report of depression symptoms, before and after treatment.

Heppner, Kivlinghan, and Wampold (2008) discussed that an advantage of using a survey study is that there is possible high external validity due to the sampling being from a real-life setting. They also reported that high external validity implies that the results can be generalized to other similar situations. Heppner et al. (2008) warned that survey studies typically have low internal validity due to variables not being able to be manipulated; internal validity suggests confidence in relationship between variables. A limitation of survey studies are that only relationships can be determined but not the underlying causal mechanisms (Heppner et al., 2008). Heppner et al.’s (2008) report of this limitation of a survey study was taken into account due to variables such as adolescent depression and parents’ and adolescent’s report of communication not being controlled by the study’s design.

Participants were not randomly assigned nor were control group conditions present for this study. Participants of this study were from an intensive mental health treatment program for adolescents diagnosed with depression, anxiety, or mood related disorders. Adolescents were accepted into the program based on an initial assessment to determine daily functioning, severity of the mental health diagnosis, and behavioral components. Adolescents were accepted into the program if they had a more severe mental health diagnosis (i.e., depression disorder, post-traumatic stress disorder, anxiety disorder, etc.) that was impacting the adolescent’s daily functioning (i.e., avoidant or
isolating behaviors, self-injurious, or suicidal thoughts/behaviors, etc.). If the adolescent was deemed appropriate for the program, the adolescent and the family were provided with the Family Communication Scale (FCS) and the Revised Child Anxiety and Depression Scale (RCADS). Parents and adolescents were given the choice to participate in the study and if they declined, there was no alterations in the treatment provided.

Self-report measures can be a beneficial tool in aiding diagnosis but should also be utilized with caution. One caution when using self-report measures is to be aware of the participants’ ability to manipulate the measure to reports their desired outcome. This report allows the individual to present him or herself as more or less healthy then he or she may be. Self-report measures are also limited due to the subject measuring their interpretation of their disability and not objective or standard observations (Kaye et al., 2014). Mazefsky, Kao, and Oswald (2010) presented an important limitation of self-report measures, specific to self-report measures having inconsistent concordance rates depending on the specific assessment or pattern being assessed.

An additional caution to keep in mind regarding self-report measures is the accuracy of the self-report for children or adolescents (Cusin, Yang, Yeung, & Fava, 2009). A reason self-report measures may not always be accurate for children or adolescents is that specific depression symptoms can be expressed differently between children and adolescents (Cusin et al., 2009; Patalay, Deighton, Fonagy, Vostanis, & Wolpert, 2014). Therefore, all self-report measures may not accurately capture the child’s symptoms but may become increasingly more accurate as the youth enters adolescence and even more so as he/she grow into adulthood (Cusin et al., 2009). However, many studies are beginning to assess the importance and reliability of self-
reports studies with children and adolescents (Cusin et al., 2009; Deighton et al., 2014; Patalay et al., 2014; Wolpert, Cheng, & Deighton, 2015). Though there are limitations to self-report measures, evidence is in favor of the use of self-report measures, for typically developing populations, as indicators of diagnosis and personal perspectives (Mazefsky et al., 2010).

Self-report measures have been utilized to measure psychiatric symptoms involving children and adolescents for many decades (Mazefsky et al., 2010). Adolescent self-report measures are known to be a powerful and reliable tool in assessing many clinical or research applications (Becker, Hagenberg, Roessner, Woerner, & Rothenberger, 2004). Though there can be some discrepancies in self-report measures, depending on what is being measured, these self-report processes provide great contributions to the diagnostic process (Becker et al., 2004; Mazefsky et al., 2010). Self-report instruments work well in higher functioning populations as a tool to aid in the diagnostic process and are known to be reliable and valid for mood disorder diagnoses (Mazefsky et al., 2010).

Self-report measures play an important part in gaining information on specific symptoms as well as growth and development. Because alternative resources can only gather certain types and amounts of information (i.e., observation of behaviors, patterns, and communication) self-report measures are valuable assessment tool (Chorpita, Yim, Moffitt, Umemo, & Francis, 2000). Despite some limitations of self-report measures, these measures are known to be helpful in assessing overall parent-adolescent communication (Vangelisti, 2004). Participants of the present study were given self-report measures regarding parents’ and adolescents’ family communication and
adolescents’ depression symptoms due to the important role that self-report measures play in clinical outcome research studies (Mazefsky, 2010).

A correlation research design was used to describe relationships between multiple characteristics in the research study (Heppner et al., 2008). A hierarchical regression was utilized to determine which response variable (parent and adolescent report of communication) accounted for more variance in the adolescents’ reports of depression.

**Description of Setting and Data Collection Procedures**

Participants for this study included adolescents, and their parents, who met the criteria to be admitted into an intensive treatment program designed to treat adolescents struggling with a depression, anxiety, or mood disorders. Many of the adolescents also demonstrated oppositional defiant behaviors, self-harm thoughts or behaviors, and suicidal thoughts or attempts. The program consists of group therapy, individual therapy, and family therapy with pharmacology also provided if needed. Families were provided with information regarding the study’s purpose and goals, and parents and adolescents were given the option to participate in or decline the study. The parents and adolescents for this study were from a midwestern children’s hospital.

The parents and adolescents completed informed consents/assents forms and were provided with information regarding the purpose of the study. The participants were asked to complete the questionnaires assessing the adolescents’ reports of depression symptoms and both parents’ and adolescents’ reports of family communication as a pre-test, without consulting with one another on the questions, within a day of the initial assessment into the treatment program. Parents and adolescents were given the same scales as a post-test upon completion of the intensive services program treatment. The
parents and adolescents answered the survey questions after they engaged in the family, individual, and group therapy as a part of the intensive treatment program.

During their time in the treatment program the adolescent attended groups for approximately 6 hours a day over a 7- to 10-day period learning specific dialectical behavior therapy (DBT) and cognitive behavior therapy (CBT) skills. In addition to attending groups, each adolescent received individual therapy daily or every other day for 20 to 40 minutes during some point in the 6-hour treatment day. The individual sessions focused on processing stressors, emotions, thoughts, and behaviors, as well as working to develop skills to manage their mental health symptoms. Parents and family members attended two to four family sessions during the 7- to 10-day period of time. The family therapy sessions addressed family communication, family dynamics, and family environmental issues that have been impacting the adolescents’ symptoms of depression, mood disorder symptoms, and behaviors.

**Data**

The data for this study was taken from a 12-month period between the summer of 2014 and the summer of 2015. The data utilized was selected from a large continuing study that looks at levels of mental health symptoms and family interactions within the intensive services programs. The larger study in the intensive treatment program looked at the impact the incorporation of family therapy into treatment has on adolescent’s report of mental health symptoms or behaviors. The scales used for this study specifically focused on the parents’ and adolescents’ reports of family communication, as measured by the 10-item Family Communication Scale (FCS; Olson, 2011), and the adolescent’s report of depression symptoms, as measured by the 10-item depression
subscale of the Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000).

Participants

An analysis to determine the needed level of power for this study was completed using the G*Power 3 statistical software (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007). The G*Power 3 statistical software (Faul et al., 2009) reports needing a sample size of 55 for the hierarchical regression. When running the G*Power 3 statistical software (Faul et al., 2009) for the hierarchical regression, the medium effect size was set at 0.15 as suggested by G*Power, with an alpha level of .05, a power level of .80, one tested predictor (adolescents’ reports of family communication) and two total predictors (parents’ and adolescents’ reports of family communication).

Inclusion and Exclusion Criteria

Participants were adolescents between the ages of 12.5 and 18 years old who met the criteria for a depressive disorder (Major Depressive Disorder or Depression, NOS). Adolescents often had a comorbid diagnosis with certain DSM-5 disorders (i.e., Mood Disorder, Generalized Anxiety Disorder, Anxiety State, Social Phobia, Obsessive-Compulsive Disorder, Post-Traumatic Stress Disorder, Attention-Deficit/Hyperactivity Disorder, and Oppositional Defiant Disorder). The adolescents’ data was excluded from the study if criteria were not met for a diagnosis of a depression disorder (Major Depression, Dysthymia, or Depression, NOS). Adolescents’ data was specifically excluded if an existing comorbid primary diagnosis of schizophrenia or substance abuse was present. These specific diagnoses were excluded due to the interfering effects schizophrenia and substance abuse has on treatment.
The adolescents’ parents were also asked to participate in the treatment specific to attending a minimum of two family therapy sessions and at times (if more appropriate) parent sessions (parent and therapist only). Participants were patients in a midwestern children’s hospital that were recommended through outpatient providers, local hospital(s) emergency rooms, or self-referred for the intensive therapy program. The participants were assessed and, if appropriate, recommended to the intensive treatment program. A recommendation was made if the depression or other mood disorder symptoms were impacting the adolescents’ and families’ daily functioning and behaviors. Upon being recommended for treatment, families and adolescents were asked to participate in the family therapy study with the option to decline, if desired, without any changes to their treatment within the program. Other demographic information including race, parents’ marital status, primary and secondary diagnosis, and gender was gathered.

**Instruments**

The current study utilized two specific self-report measures: (a) the Revised Child Anxiety and Depression Scale (RCADS) and (b) the Family Communication Scale (FCS). For this study, the adolescents completed both the Revised Child Anxiety and Depression Scale (RCADS) and (b) the Family Communication Scale (FCS). The parents only completed the Family Communication Scale (FCS).

**Revised Child Anxiety and Depression Scale (RCADS)**

Adolescent depression symptoms were measured by implementing the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS) (Chorpita, Yim, Moffitt, Umemoto & Francis, 2000). The Revised Child Anxiety and Depression Scale (RCADS) is a 47-item multidimensional self-report instrument to measure youths’
reports of anxiety and depression symptoms specific to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (Chorpita et al., 2000). The scale allows the youth to rate how often each item relates to them using a score 0 to 3 with “never,” “sometimes,” “often,” and “always” (Chorpita et al., 2000). The RCADS takes about 5-10 minutes to complete and was only given to the adolescents (not the parents) for this study. The RCADS consists of six subscales: Social Phobia (SP; 9); Panic Disorder (PD; 9); Generalized Anxiety Disorder (GAD; 6); Major Depressive Disorder (MDD; 10); Separation Anxiety Disorder (SAD; 7); and Obsessive Compulsive Disorder (OCD; 6). For this study, only the Major Depressive Disorder subscale was examined to assess the change in adolescent’s report of depression symptoms. The test-retest for the RCADS as a whole was favorable for all the subscales, with the SP subscale being the most reliable and the OCD subscale being the least reliable (Chorpita et al., 2000). The index of reliability, alpha coefficient, from Chorpita et al.’s (2000) study for the RCADS subscale specific to Major Depressive Disorder (MDD) is reported to be $\alpha = 0.76$. Chorpita, Moffit, and Gray (2005) conducted an internal consistency study made up of 513 participants showing an internal consistency of the MDD subscale at $\alpha_{\text{MDD}} = .87$.

Chorpita et al., 2010 completed a study to assess the reliability and internal consistency of the RCADS by comparing the RCADS to the Child Depression Inventory (CDI; Kovacs, 1980) and the Revised Children’s Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). This was done through a correlation test of the RCADS, CDI and RCMAS. The correlation test between the RCADS depression subscale and CDI revealed an overall correlation of $r = 0.70$. The correlation test relating to gender and age reported $r = .63$ for boys, $r = .75$ for girls, and $r = .78$ for adolescents ($n = 52$).
between the ages of 13 to 18 years old at a \( p < 0.01 \). The correlation between the RCADS depression subscale and the RCMAS reported a correlation of \( r = .28 \) for boys, \( r = .75 \), and \( r = .68 \) for adolescents (n=47) between 13 and 18 year olds at a \( p < 0.01 \).

Additionally, the comparison test proved that the RCADS had strong initial support for structural, discriminate, and content validity (Chorpita et al., 2000). A 1-week tests-retest paradigm (Anastasi, 1988) was utilized and revealed that the RCADS depression subscale had a reliability coefficient of 0.77 (Chorpita et al., 2000). The RCADS is relatively favorable for testing psychometrics to identify target diagnosis and favorable for use in clinical settings (Chorpita et al., 2005). Paloma-Chort et al. (2010) reported that the RCADS showed greater correspondence for diagnosing symptoms. The RCADS was used due to its versatility across age ranges with this studying encompassing a larger range (12.5 to 18 years old) of adolescents. According to Mathyssek et al. (2013), the RCADS measures consistently across a youth’s developmental stages. Mathyssek et al. (2013) utilized a confirmatory factor analysis (CFA) framework to identify that subscales remained invariant across age groups. The Mathyssek et al. (2013) study reported the RCADS as a suitable measure to compare anxiety and depression levels in a longitudinal manner and across age ranges.

**Family Communication Scale**

In the preliminary stages of the larger data collection, the full 42-item Family Adaptability Cohesion Evaluation Scale IV (FACES IV; Olson, Sprenkle, & Russell, 1979; Olson, 2008) was utilized but was later discontinued. The full 42-item FACES IV was discontinued due to many of the adolescents living in multi-homes as a result of being from blended or split-families. These family dynamics made it difficult for
participants to identify which home (i.e., mother’s, father’s, or grandparent’s home) to represent in the 42-item scale. These difficulties led to misrepresentation of the overall cohesion and adaptability of the family’s functioning. The FACES IV 10-item Family Communication Scale was employed due to its versatility to assess communication between family members despite the family structure or living arrangements.

The FACES IV Family Communication Scale (FCS) (Olson, 2011) was utilized to measure a family’s communication styles and abilities. The communication inventory was created by Olson and colleges to measure family affect (expression of emotions) in order to assess dimensions of communication within a family system (Olson, Fournier, & Druckman, 1986). The scale is a 10-item questionnaire relating to openness and expression of thoughts, emotions, and reactions within the family system. The items consist of 5-point Likert scale with responses ranging from 1 (strongly disagree) to 5 (strongly agree) with a range of score being 10 to 50 with higher scores indicating better communication (Olson, 2008) (see Appendix E).

Olson (2008) reports the FCS has an alpha reliability of .90 and test-retest reliability score of .86 based off a sample size of 2,465 persons (Olson & Gorall, 2006). Olson (2011) reported in his study that the entire FACES IV scale (including the Family Communication Scale) met validation by correlating the FACES IV scales with other self-report scales [i.e., Self-Report Family Inventory (SFI), Family Assessment Device (FAD), and Family Satisfaction Scale (FSS)]. The overall total score of the FACES scales correlated with other self-report scales [$\alpha = 0.73$ (SFI); $\alpha = 0.93$ (FSS); and $\alpha = 0.91$ (FAD)] demonstrating validation of all FACES IV scales. Overall, the Family Communication Scale (FCS) measures a family’s ability to communicate to increase
flexibility and cohesion when working through a crisis or a challenge. A family’s communication style and abilities allows a family to work through difficult issues and crisis (Olson, 2011). Research demonstrates that a family that has more effective communication and more balance in their flexibility and cohesion will be able to adapt and manage stress or conflict when it arises (Kouneski, 2000; Olson, 2011).

Baiocco, Laghi, Cacioppo, and Tafa (2013) discussed the importance of the field of family therapy having assessments that are reliable and valid when assessing family dynamics. This led to their decision to explore the reliability and validity of the FACES IV scales. Baiocco et al. (2013) reported that the Family Communication Scale measurements of the FACES IV scales provides insight on a family’s ability to modify levels of cohesion and flexibility. Their study consisted of 1,416 Romanian high school students (672 males and 744 females) between the ages of 13 and 22 years old. Baiocco et al.’s (2013) study found an internal consistency reliability of 0.84 of the FACES IV Family Communication Scales (FCS). Pearson correlation found the Family Communication Scale (FCS) to be significantly correlated with the FACES IV Cohesion ($r = 0.72$), Flexibility ($r = 0.66$) and Disengaged ($r = 0.47$) but not correlated to the other subscales (Enmeshed, $r = 0.13$; Rigid, $r = 0.18$; and Chaotic, $r = 0.11$).

Ultimately, Baiocco et al. (2013) reported that the FACES IV Family Communication Scale was found to be reliable and valid for the cross-cultural context by the Italian standards.

Pereira and Teixeira (2013) conducted a study utilizing 214 participants (74% women and 26% men) and the FACES IV Family Communication Scale (FCS). Their study found the FCS had an alpha reliability of $a = 0.89$. A Pearson correlation was also
completed finding strong convergent validity between the FCS and the majority of the FACES-IV subscales (Cohesion, $r = 0.54$; Flexibility, $r = 0.55$; Disengaged, $r = 0.59$, and Chaotic, $r = 0.47$) (Pereira & Teixeira, 2013). This was consistent with previous studies (Baiocco et al., 2013; Mirnics, Vargha, Toth, & Bagdy, 2010; Olson, 2011) that reported similar results. Additionally, Pereira and Teixeira’s (2013) found the FSC to be internally consistent, using Cronbach’s alpha, with all the FACES IV scales, except for the enmeshed ($r = 0.05$) and ridged scales ($r = 0.09$).

The FACES IV Family Communication Scale (FCS) was selected for this author’s study for the purpose of identifying the parents’ and adolescents’ report of family communication. Many studies that utilized the FACES cohesion and FACES communication scales found that family cohesion and communication impact the development of empathy, maturity, and mental health of the youth (Baiocco et al., 2013; Kouneski, 2000; Pereira & Teixeira, 2013). Because the scale assesses adaptability and communication, it provided information on how well the youth and family were adapting and communicating through their current crises or stressors. The Family Communication Scale (FCS) provides the ability to assess the correlation between parent-adolescent communication and adolescents’ depression symptoms.

**Statistical Analyses**

This study employed descriptive and inferential statistics. Descriptive statistics included means, standard deviations, frequencies, reliability coefficients, and correlations for data set variables. Correlation designs and hierarchical regression are utilized to examine the impact a response variable has on the other response variables. Hierarchical regression was used to examine how much more one variable (i.e., adolescents’ report of
communication) will account for variance above and beyond another variable (i.e., parents’ report of communication) on the adolescents’ report of depression symptoms.

**Limitation**

A specific limitation of the correlation and hierarchical regression that looks at the data as individual entities is the understanding that they violate the non-independent aspects of the data (Kenny, Kashy, & Cook, 2006). These forms of data analysis do not take into account the effect one family member has on the reporting of another family member but looks at each participant as an independent variable. Parents and adolescents have a shared experience, within the family communication, that is not fully expressed through the correlation and hierarchical regression (Kenny et al., 2006; McMahon, Pouget, & Tortu, 2006). The dyadic data analysis was not run due to the data being preexisting data. There were not enough groups of data that consisted of scales from an adolescent, mother, and father from the same family, therefore, data was analyzed as individual scales. Although this is a limitation, other literature uses correlations and hierarchical regression to explain the relationships between parent and adolescent communication and mental health without accounting for this non-independence (Fang, Schinke, & Cole, 2009; Kelada, Hasking, & Melvin, 2016; Olsen et al., 1999; Reed & Dubow, 1997; Street, Harris-Britt, & Walker-Barnes, 2009). Therefore, this data analysis method was utilized for this study. An additional limitation of using correlations and hierarchical regressions that do not take into account the possible dyadic dimension of the variables, is an increased risk of type 1 error (Kenny, Kashy, & Cook, 2006; McMahon, Pouget, & Tortu, 2006; Newsom, 2009; Newsom & Nishishiba, 2002).
**Research Question and Hypothesis One – (Correlation)**

RQ1: Is there a statistically significant relationship between adolescents’ reports of depression symptoms as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS) and adolescents’ and parents’ reports of family communication, as measured by the Family Communication Scale (FCS), before treatment?

H1: Parents’ and adolescents’ reports of family communication, as measured by the Family Communication Scale (FCS), are significantly and negatively related to adolescents’ reports of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), before treatment.

A bivariate correlation was utilized to measure the strength of association between the two response variables before engaging in treatment. The two response variables are the adolescents’ self-report pre-test on depression and family communication as well as the parents’ pre-test regarding family communication.

**Research Question and Hypothesis Two – (Correlation)**

RQ2: Is there a statistically significant relationship between adolescents’ reports of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), and adolescents’ and parents’ report of family communication, as measured by the Family Communication Scale (FCS), after treatment?

H2: Both parents’ and adolescents’ reports of family communication, as measured by the Family Communication Scale (FCS), are significantly and negatively
related to adolescent’s reports of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), after treatment.

A bivariate correlation was utilized to measure the strength of association between the two response variables after engaging in treatment. The self-report post-tests of the adolescents’ reports of depression and family communication as well as the parents’ post-test regarding family communication was utilized for the correlation.

**Research Question and Hypothesis Three – (Hierarchical Regression)**

RQ3: Do parents’ and adolescents’ reports of family communication, as measured by the Family Communication Scale (FCS), account for significant variance in adolescents’ reports of depression symptoms, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), after treatment?

H3: Parents’ and adolescents’ reports of family communication, as measured by the Family Communication Scale (FCS), are significantly related to adolescents’ report of depression, as measured by the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS), with adolescents’ reports of family communication accounting for variance in adolescents’ depression beyond that accounted for by the parents’ reports of family communication, after treatment.

A hierarchical regression was utilized to determine the relationship between the adolescents’ report of depression and the parents’ and adolescents’ reports of level of communication. The hierarchical regression was implemented due to the thought that adolescent’s perceptions of family communication may account for additional variance in adolescent depression beyond that accounted for by parents’ perceptions of family communication. The first antecedent variable, parents’ report of communication, was
entered first, followed by the second antecedent variable, adolescent’s report of communication, to gain information on whether the adolescent’s report accounts for variance in depression beyond what was accounted for by the parents’ report.

Summary

This chapter described the research design, research setting, participants, data collection procedures, and instruments. The research methodology that was utilized to address the research questions was discussed in this chapter as well.

There is a small amount of literature that addresses the parent-adolescent communication in an intensive treatment program. Therefore, this study provided needed research on the impact parent-adolescent communication in an intensive treatment program can have on adolescent depression symptoms. In addition, the study provided research information on the connection that parent-adolescent communication and the completion of an intensive treatment program has on adolescent depression symptoms. It is anticipated that the research provided clarification on the impact a family’s ability to communicate has on adolescent depression symptoms. The study provided insight on the correlation and relationship between parent and adolescent communication and adolescent depression in an intensive treatment program.
CHAPTER IV
RESULTS

The purpose of Chapter IV is to present the findings from the data analysis and to show how the collected data corresponds with the central research questions noted in Chapter III. This study examined the relationship between parents’ and adolescents’ reports of family communication and adolescents’ reports of depression symptoms.

Chapter IV is divided into two major sections to present the results of this study. The first section reports the demographic description of the statistics and the second section presents the results of the testing of the research hypothesis.

Descriptive Statistics

The data cleaning and descriptive statistic procedures are presented in this section. One hundred eighty-seven adolescents initially completed the Family Communication Scale (FCS; Olson, 2011) and the depression subscale of the Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto & Francis, 2000). In addition, 118 mothers and 48 fathers completed the Family Communication Scale. Each adolescent was asked to complete a pre- and post-test of the Family Communication Scale and the Revised Child Anxiety and Depression Scale. Additionally, each parent was asked to complete a pre- and post-test of the Family Communication Scale. Following the data cleaning process, 20 adolescent participants were excluded from the study, leaving 167 participants remaining. The 20 adolescents
omitted did not meet the exclusion criteria (depression diagnosis, random responding, incomplete surveys, normality, univariate and multivariate outliers, and multicollinearity). Additionally, five mothers’ scales were excluded, leaving 113 participants remaining. After the data cleaning process, four fathers’ scales were removed leaving 44 participants to be utilized. The fathers’ scales were not utilized for this study because the final number of remaining fathers’ scales was too few to meet the determined level of power for data analysis (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007).

**Data Cleaning**

A total of 187 parents endorsed participation for their adolescent to be a part of the study by reviewing and signing the informed consent form. After the data collection was complete, the data set was screened for participants’ eligibility, random responding, incomplete surveys, normality, univariate and multivariate outliers, and multicollinearity. Eligibility was determined by the participants’ diagnosis (depression) and depression symptoms on the major depression subscale of the Revised Child Anxiety and Depression Scale. If a participant did not meet the criteria for depression diagnosis from the DSM-5 (American Psychiatric Association, 2013), they were excluded from the study. A total of 20 adolescent participants (10.7%) were removed from the study. Two were excluded because they did not meet the exclusionary criteria for multivariate outliers. Additionally, 18 were removed because they did not meet the depression diagnosis criteria.

The data was screened for missing values following the recommendations detailed by Parent (2013) and Tabachnick and Fidell (2007). Specific to Tabachnick and
Fidell’s (2007) recommendations, the pattern of the missing data was more important than the amount of missing data, such that, if the missing values were spread randomly across the data, it created fewer problems than if the data has nonrandom missing values around a specific item. In this study there were no clear patterns of missing data, evidenced by only four cases missing four items or less on the family communication and adolescent depression scale. The missing data was determined through using visual inspection and descriptive statistics to indicate missing values from the 10-item Family Communication Scale and the 10-item major depression subscale of the RCADs. Therefore, it was assumed that the missing data was missing at random. Parent (2013) and Tabachnick and Fidell (2007) recommended that if any survey is missing more than 20% of its data, either single questionnaire or across the entire survey, it should be excluded. This study did not have any variables that were missing more than 20% of data. Parents’ and adolescents’ surveys with missing data were retained if they had a total of two or less missing data points from the 10-item Family Communication Scale (FCS; Olson, 2011) and the 10-item major depression subscale from the Revised Child Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemoto & Francis, 2000). For surveys that had missing data, the available item analysis scale mean for each participant was obtained and substituted for the missing data on that specific scale (Parent, 2013).

The data was also examined for multivariate normality to make sure that the data met normality assumptions that are essential for multiple regression analysis. Because this sample comprised of less than 200 cases, skewness and kurtosis statistics were evaluated (Tabachnick & Fidell, 2007). The skewness and kurtosis found that both the
mothers’ and fathers’ post-test report of family communication were negatively skewed at -3.522 and -3.485, respectively, with the absolute values being greater than the cutoff of > 3.29 (Tabachnick & Fidell, 2007). Therefore, both the mothers’ and fathers’ post-test family communication scores where transformed using the square root transformation process. The square root transformation was utilized due to the skewness and kurtosis being small to moderate; as a result, the mothers’ and fathers’ skewness and kurtosis met the normal assumption below < 3.29 at .61 for mothers and -.14 for fathers (Tabachnick & Fidell, 2007). The transformed variables for the mothers’ and fathers’ post communication scores were used for the correlation and repeated measures tests.

The remaining variables’ skewness and kurtosis are: adolescent depression pretest (-.70), adolescent depression posttest (2.55), adolescent pretest communication (-.39), adolescent posttest communication (-1.35), mother pretest communication (.46), and father pretest communication (.81). These scores all met the normal assumption below < 3.29 (Tabachnick & Fidell, 2007).

Additionally, the data was evaluated for univariate and multivariate outliers following the process detailed by Tabachnick and Fidell (2007). No univariate outliers were identified; therefore, no cases were removed based on the z-score value exceeding z > 3.29, p < .001. The Mahalanobis distance was then examined to identify multivariate outliers that exceeded the probability of p < .001 (Tabachnich & Fidell, 2007). Two multivariate outliers were identified and removed using this criterion.

Multicollinearity was examined through tolerance, variance inflation factor (VIF), and condition index. The analysis of the tolerance (.44 – .58) [conservative cut off of < .20], VIF (1.71 – 2.27) [conservative cut off of > 5], and condition index [condition
index ≤ 30] were completed for the mothers’ and adolescents’ pre and post family communication scores. These tests were also completed for the adolescents’ pre and post scores for adolescent depression suggesting that multicollinearity was not affecting this data set. However, the fathers’ pre and post communication scores did not meet the criteria of tolerance > .20, as well as for the VIF regarding not having any numbers above 5. In addition, the fathers’ pre and post communication scores did not meet the condition index of < 30; these were further inspected, and at least two variables had numbers > .50 for the pre and posttests variables, indicating multicollinearity. Additionally, due to having a limited number of completed scales, the fathers’ Family Communication Scales were not utilized in the final analysis for this study. It is suspected that the fathers’ pre and post communication scores were not significant due to a small number of fathers, from the initial 187 adolescents, completing the Family Communication Scale. 

**Demographic Statistics**

Demographic information was obtained by having each parent complete the demographic questionnaire (see Appendix D). The demographics descriptive statistics are presented in Table 1. This study consisted of 133 female adolescents (79.6%) and 34 male adolescents (20.4%) with the ages ranging from 12 years old to 18 years old with the average age being 14.82 years old (SD = 1.29; see Tables 1 and 2). Additionally, Table 3 presents the ethnic representation of the participants. One hundred forty-eight (88.6%) participants were Caucasian, 8 (4.8%) were African American, 4 identified as biracial (2.4%), 3 were Hispanic/Latino (1.8%), 2 identified as other (1.2%) and 2 participants did not provide demographic information (1.2%).
As was discussed, despite having 43 fathers complete the Family Communication Scale, the fathers’ scales were not utilized because 55 scales were needed to reach the desired level of power (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007).

Table 1. Gender of the participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>133</td>
<td>79.6</td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>20.4</td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2. Age of adolescent participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 years old</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td>13 years old</td>
<td>22</td>
<td>13.2</td>
</tr>
<tr>
<td>14 years old</td>
<td>42</td>
<td>25.1</td>
</tr>
<tr>
<td>15 years old</td>
<td>44</td>
<td>26.3</td>
</tr>
<tr>
<td>16 years old</td>
<td>39</td>
<td>23.4</td>
</tr>
<tr>
<td>17 years old</td>
<td>13</td>
<td>7.8</td>
</tr>
<tr>
<td>18 years old</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>167</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 3. Ethnic representation of participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian/White</td>
<td>148</td>
<td>88.6</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Biracial</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>165</strong></td>
<td><strong>98.8</strong></td>
</tr>
</tbody>
</table>

The breakdown of the number of mothers and fathers that participated in the current study is presented in Table 4. One hundred thirteen mothers (67.7%) and 44 (25.7%) fathers participated in completing Family Communication Scales for the study.

Table 4. Gender of parent participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>118</td>
<td>67.7</td>
</tr>
<tr>
<td>Father</td>
<td>43</td>
<td>25.7</td>
</tr>
</tbody>
</table>

**Research Hypothesis Test Results**

The hypotheses were tested using Pearson’s $r$ correlations and hierarchical regression tests with an alpha error rate of .05 level of significance for each research question. The hypotheses’ test results are presented in the following section.
This study explored the relationship between parents’ and adolescents’ reports of family communication and adolescent’s reports of depression symptoms. Three general hypotheses were tested in this study. The first and second hypotheses examined the relationship between parents’ and adolescents’ reports of family communication and adolescents’ reports of depression. The first hypothesis predicted that there would be a significant negative correlation between both parents’ and adolescents’ reports of family communication and adolescents’ report of depression symptoms before treatment. The second hypothesis predicted there would be a significant negative correlation between both parents’ and adolescents’ report of family communication and depression symptoms. Hypothesizing that reports of family communication scores would increase while depression scores would decrease, after treatment. The third hypothesis examined how much the parents’ reports of family communication contributed to the adolescents’ reports of depression symptoms and if adolescents’ reports of family communication accounted for additional variance on the adolescents’ depression symptoms. It was hypothesized that the adolescents’ reports of family communication contribute more significantly to the adolescent’s depression symptoms, after treatment.

**Hypothesis 1**

Pearson’s $r$ bivariate correlations were computed to assess the relationship between the mothers’ and adolescents’ reports of communication and the adolescents’ report of depression symptoms prior to treatment in the intensive services program. The correlation revealed that there was no significant correlation between adolescents’ reports of depression symptoms and the mothers’ reports of communication at pretest ($r = .06, n = 70, p = .61$) or the adolescent’s report of communication at pretest ($r = -.04, n = 95$, $p = .45$).
Overall, the mothers’ and adolescents’ thoughts on the family’s communication ability and style does not relate significantly to the adolescents’ reports of depression symptoms prior to treatment.

Table 5. Correlation test of pretest scales

<table>
<thead>
<tr>
<th></th>
<th>AdPreMDD</th>
<th>AdPreCom</th>
<th>MoPreCom</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdPreMDD</td>
<td>Pearson Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdPreCom</td>
<td>Pearson Correlation</td>
<td>-.040</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.704</td>
<td></td>
</tr>
<tr>
<td>MoPreCom</td>
<td>Pearson Correlation</td>
<td>.062</td>
<td>.064</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.609</td>
<td>.611</td>
</tr>
</tbody>
</table>

*Note.* Adolescent Pre-test Major Depression Scores (AdoPreMDD); Adolescent Pre-test Family Communication Scale (AdoPreCom); Mother Pre-test Family Communication Scale (MoPreCom).

**Hypothesis 2**

Pearson’s r bivariate correlations were computed to assess the relationship between the mothers’ and adolescents’ reports of communication and the adolescents’ reports of depression symptoms following treatment in the intensive services program. The correlation revealed that there is a significant correlation between the adolescents’ reports of family communication ($r = -.36, n = 137, p = .001$) and the adolescents’ reports
of depression symptoms following treatment. However, there was no significant correlation between the mothers’ reports of family communication ($r = -.01, n = 102, p = .92$) and the adolescents’ reports of depression symptoms following treatment (see Table 6). Overall, the adolescents’ perception of family communication was correlated to their report of depression symptoms, after treatment.

Table 6. Correlation of posttest scales

<table>
<thead>
<tr>
<th></th>
<th>AdPostMDD</th>
<th>AdPostCom</th>
<th>MoPostCom</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdPostMDD</td>
<td>Pearson Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AdPostCom</td>
<td>Pearson Correlation</td>
<td>-.356**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>MoPostCom</td>
<td>Pearson Correlation</td>
<td>-.010</td>
<td>.404**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.912</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note:* Adolescent Post-test Major Depression Scores (AdoPostMDD); Adolescent Post-test Family Communication Scale (AdoPostCom); Mother Post-test Family Communication Scale (MoPostCom). **Correlation is significant at the 0.01 level (2-tailed).

**Hypothesis 3**

A two-stage hierarchical regression was conducted with adolescents’ reports of depression symptoms being the outcome variable. The mothers’ reports of family
communication were entered first then the adolescents’ reports of family communication were entered second. Table 7 provides a description of the hierarchical regression analysis. At stage one, the hierarchical regression revealed that the mothers’ reports of family communication did not account for significant variance in adolescent’s reports of depression ($R^2 = .00$, $p < .97$) and accounted for 0.4% of the variance in adolescent’s report of depression. When introducing adolescents’ reports of family communication, the change in $R^2$ was significant ($\Delta R^2 = .17$, $p < .001$) and explained an additional 17% of variance to the adolescents’ report of depression symptoms, after treatment. In conclusion, both the mothers’ and adolescents’ reports of family communication accounted for 17.4% of the variance impacting adolescent’s report of depression symptoms after the completion of treatment.

Table 7. Summary of hierarchical regression for variables predicting adolescent depression

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE B</th>
<th>B</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>12.54</td>
<td>2.49</td>
<td>0.00</td>
<td>.00</td>
</tr>
<tr>
<td>Mother Comm.</td>
<td>0.03</td>
<td>0.69</td>
<td>0.00</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>20.29</td>
<td>2.91</td>
<td>0.20</td>
<td>.17*</td>
</tr>
<tr>
<td>Mother Comm.</td>
<td>1.30</td>
<td>0.70</td>
<td>0.20</td>
<td>.17*</td>
</tr>
<tr>
<td>Adolescent Comm.</td>
<td>-0.36</td>
<td>0.08</td>
<td>-0.45</td>
<td>.17*</td>
</tr>
</tbody>
</table>

*Note. N = 97; *p < 0.01
Summary

This chapter summarized the demographics of the sample, the data screening and cleaning process, and the results of the hypothesis testing. The final analysis utilized 167 adolescents and 118 mothers, pre- and posttest scores.

Hypothesis 1 tested the correlations between the mothers’ and adolescents’ reports of family communication and adolescent’s report of depression symptoms before treatment. It was hypothesized that a correlation would exist between both mothers’ and adolescents’ reports of family communication with adolescents’ report of depression. This hypothesis was not supported by the research findings.

Hypothesis 2 tested the correlations between the mothers’ and adolescents’ reports of family communication and adolescents’ reports of depression symptoms after treatment. It was hypothesized that a correlation would exist between both mothers’ and adolescents’ reports of family communication with adolescents’ reports of depression. The hypothesis that adolescents’ reports of family communication would impact adolescents’ reports of depression was supported by research findings. However, the research findings did not support the hypothesis that the mothers’ reports of family communication would be correlated to adolescents’ reports of depression.

Hypothesis 3 tested which variable (mother’s report of family communication or adolescents’ reports of family communication) had a more significant impact on adolescents’ reports of depression after treatment. The test found that the mothers’ reports of family communication accounted for 0.4% of the variance where the adolescents’ reports of family communication accounted for 17% of the variance for the adolescents’ reports of depression after treatment.
CHAPTER V

DISCUSSION

This final chapter focuses on the analysis of the results of this outcomes research study and is organized into six sections. The first section includes a review of the study, followed by section two with a brief discussion of the research hypotheses. The third section presents implications of the research findings regarding adolescent depression treatment. Future research recommendations in the area of adolescent depression treatment are discussed in section four. There were several limitations of the study, and these are presented in section five. Section six summarizes the current study.

Summary of the Study

This research study evaluated the relationship between parent-adolescent communication and adolescent depression within an intensive based treatment program for adolescent depression. Much of the past research on adolescent depression had limited direct parent-adolescent involvement during treatment. Direct parent-adolescent involvement allows the family to address specific family system dynamics that hinder productive parent-adolescent communication (Cheek & Piercy, 2008; David-Ferdon & Kaslow, 2008; Tompson et al., 2007). Therefore, the purpose of the present research study was to increase awareness of parents’ and adolescents’ perceptions of family communication and its impacts on adolescents’ reports of depression symptoms.
This quantitative study examined data from an already existing data set and data collection process that took place in an intensive treatment program that served adolescents and families from a midwestern children’s hospital that serves the regional area covering a radius of approximately 100 miles. Each family completed a demographic questionnaire, a Family Communication Scale (mother and adolescent), and RCADS major depression subscale (adolescent only). A correlation research design was used to analyze the obtained data using descriptive statistics and hierarchical regression (Heppner et al., 2008).

**Research Hypotheses**

This study investigated three general hypotheses. The first general hypothesis was to assess if a mother’s report of family communication and an adolescent’s report of family communication would correlate to one another and to the adolescent’s report of depression symptoms prior to treatment. The second general research hypothesis was to assess if a mother’s report of family communication and an adolescent’s report of family communication would correlate to one another and to the adolescent’s report of depression symptoms after the completion of treatment. The third general research hypothesis was to assess if the adolescent’s report of family communication would account for more variance than the mother’s report of communication for the adolescent’s report of depression.

**Research Hypothesis 1**

It was hypothesized that a mother’s report of family communication would correlate to the adolescent’s report of family communication and the adolescent’s report of depression symptoms prior to treatment. However, Pearson $r$ regression found no
correlation between mothers’ or adolescents’ reports of family communication and adolescents’ reports of depression prior to treatment in the partial hospitalization program.

**Discussion of Hypothesis 1**

These findings were somewhat surprising, because much of the literature reports that parent-adolescent communication is a contributing factor to adolescent depression symptoms (Carr, 2014; Curran & Datto, 2014). However, it is not as surprising that the mothers’ reports of family communication did not correlate to the adolescents’ reports of family communication or depression. Parents frequently have different perspectives of family communication compared to the adolescent (Frijns, Keijsers, Branje, & Meeus, 2010), because adolescents often do not want to communicate with their parents (Frijns et al., 2010). Additionally, the parent may be perceived as being difficult to communicate with, leading the adolescent to limit their parent-adolescent communication (Chhabra & Sodhi, 2012; Van Dijk et al., 2014).

**Research Hypothesis 2**

It was hypothesized that a mother’s report of family communication would correlate with an adolescent’s report of family communication after treatment. Additionally, Pearson \( r \) regression found a correlation between the adolescent’s report of family communication and adolescent’s report of depression, following the completion of treatment in the partial hospitalization program. However, the Pearson \( r \) correlation did not find a correlation between the mothers’ reports of family communication and the adolescents’ reports of depression following treatment.


**Discussion of Hypothesis 2**

These findings indicated that there was no significant correlation between the mothers’ reports of communication and adolescents’ reports of depression. However, there was a correlation between the adolescents’ reports of communication and adolescents’ reports of depression. Parents’ and adolescents’ perspectives on communication often differ due to adolescents not desiring to communicate with their parents (Frijns et al., 2010). In addition, many times parents want to communicate but may come across as adverse in their communication (Chhabra & Sodhi, 2012), pushing the adolescent away (Frijns et al., 2010). Hypothesis 2’s findings about the adolescents’ perceived reports of communication are consistent with research done on parent-adolescent communication and adolescent depression symptoms (Shaw et al., 2009; Yu et al., 2006).

**Research Hypothesis 3**

It was hypothesized that the adolescents’ reports of family communication accounted for more variance than the mothers’ reports of family communication in relation to adolescents’ reports of depression after treatment. In addition, the data revealed that mothers’ family communication scores contributed to a low percentage of the adolescent depression symptoms, whereas the adolescents’ reports of family communication contributed to a much higher percentage of the adolescents’ reports of depression symptoms.
Discussion of Hypothesis 3

These findings were consistent with the existing research literature, which reported parents often have decreased insight on the state of relationship or communication with their adolescent (Shaw et al., 2009). This was believed to be due to the adolescent not being open with parents regarding their internal thoughts and emotions (Frijns et al., 2010). Additionally, as adolescents get older, parents frequently become less involved in the youths’ lives (Chhabra & Sodhi, 2012; Parra et al., 2011). The finding that adolescents’ perspective of family communication has a greater impact on their depression symptoms is congruent with existing research (Ackard, Neumark-Sztainer, Story, & Perry, 2006; Curran & Datto, 2014), which also holds true for the finding that adolescents’ perspective regarding family communication impacts their current and future mental health (Latina et al., 2015; Shaw et al., 2009; Van Dijk et al., 2014; Yu et al., 2006).

Research Contributions and Implications

The findings of this research study contribute to the field of marriage and family therapy in numerous ways. They contribute by providing evidence for the impact parent-adolescent communication has on adolescents’ depression symptoms. It supports the importance of parent-adolescent communication on an adolescent’s mental and emotional development. This study informs therapists who work with adolescents struggling with depression of the importance of parent-adolescent communication as a protective factor for adolescent depression.

The study highlighted the impact of the adolescent’s perspective of family communication upon his/her expression of depression symptoms. Specifically,
supportive and open parent-adolescent communication was seen as a protective factor for depression behaviors (Latina, Giannotta, & Rabaglietti, 2015). Additionally, there is a belief that conflictual or very little communication actually contributes to developing more symptoms of depression (Chhabra & Sodhi, 2012). The findings also indicate that parents often do not know that their perspective of family communication differs from their adolescents.

These findings also provide guidance for marriage and family therapists regarding the importance of focusing on family communication (Kam et al., 2015). Improving parent-adolescent communication helps the adolescent feel supported and valued (Van Dijk et al., 2014). More specifically, since this study identifies that parents and adolescents often have differing views of family communication, it is important that therapists help parents and adolescents to understand and value each other’s perspective as well as to assist families and adolescents to make adjustments within their experiences and views (Shaw, Dallos, & Shoebridge, 2009).

Furthermore, these findings support the belief of working with the system (parent[s] and adolescent) directly and supporting one-on-one communication. Therapy can assist parents in improving their perception of communication while increasing understanding of their adolescent’s experiences (Latina et al., 2015). Because parent and adolescent perception of their communication does not always match, it can lead to conflict and persistent withdrawal. Other findings of this study support the importance of assisting the family system, both the parent and adolescent, to improve their parent-adolescent communication and challenge skewed perspectives of their family’s communication (Van Dijk et al., 2014). Oftentimes, parents have a perception about how
they should treat and communicate with their adolescent. In addition, the parents have perceptions and beliefs regarding how their adolescent should behave and communicate (Yu et al., 2006). When these parental expectations are not met, a parent may become more irritated and struggle to be supportive and open with their adolescent. This decrease in open and supportive communication can influence the adolescent’s perception of their family’s communication, leading to an increase in depression symptoms (Frijns, Keijser, Branje, & Meeus, 2010; Van Dijk et al., 2014).

Finally, the study has provided insight into how an adolescent’s negative perception of parent-adolescent communication can hinder the improvement of adolescent depression symptoms (Curran & Datto, 2014). Marriage and family therapists can be helpful in addressing this issue by assisting families in improving their family communication as well as the adolescent’s perspective of the family’s communication. This would be valuable, since communication is seen as a protective factor for adolescent depression/depression symptoms.

**Future Research Recommendations**

As mental health professionals continue to work with adolescents struggling with depression symptoms, it is critical to understand the impact of parent and adolescent communication on the development of depression symptoms. Further research is needed to explore specific details of the parent-adolescent communication (i.e., openness, warmth, reflective listening, etc.) that have a large effect on the adolescent’s perceptions and depression symptoms. In addition, focus should be on specific family therapy interventions that can assist in improving the adolescent’s perception of family
communication, as a function of the adolescent’s behavior problem. This focus needs further exploration.

It would be advantageous to investigate the impact the adolescent’s depression and behaviors have on the parent’s behaviors and reactions in return. Specifically, it would be helpful to study the benefits of family psychoeducation on how depression affects adolescents’ behaviors, moods, and processing. Understanding this can assist parents in recognizing how these symptoms can influence their interactions and communication with their adolescent. This could be valuable by providing the parents with support and guidance on how to handle and communicate with their adolescent who is affected by depression symptoms.

Future research regarding the relationship between parental demographic information such as the parents’ current or past marital status (married, divorced, two-parent home, etc.) would be beneficial. In addition, information regarding the relationship between family communication and adolescent depression and the parents’ current or past mental or physical health issues would be useful for future studies. It would be also beneficial to identify different parenting styles (i.e., authoritative, authoritarian, permissive, conflictual, etc.) and the impact these parenting styles may have on parent-adolescent communication, the adolescent’s perception of family communication, and adolescent depression symptoms.

In addition, families that deal with adolescent depression need to be encouraged and recruited to participate in empirical research studies, to examine family dynamics and the impact these dynamics have on adolescents’ mental health. Furthermore, various family therapy treatments, ranging from intensive treatment programs, outpatient family
therapy, group family therapy, and individual therapy to address adolescent depression need to be researched as to their effectiveness (individually and combined).

Despite the importance of involving the family in treatment of adolescent depression, there are still a limited number of treatments that involve the family (David-Ferdon & Kaslow, 2008; Sanders & McCarty, 2005). Sander and McCarty (2005) detailed that 68% of treatments addressing youth depression focused solely on the individual, 18% considered parents as partners, and only 11% saw the parents as agents of change in the treatment. David-Ferdon and Kaslow (2008) indicated that adolescent depression research has forms of treatment in which parents are involved in some manner. However, few studies incorporate important family members into the therapy sessions. Although the parent or family was involved in some forms of the treatment, effectiveness was not substantiated due to the family not being fully incorporated (David-Ferdon & Kaslow, 2008). These statements supported the need for further research in which all important family members are incorporated into the treatment of adolescent depression and family communication.

As this study has demonstrated, it is important to understand the significant impact that parents and the family have on adolescent depression and the adolescent’s daily functioning. More empirically validated studies are needed, focusing on incorporating family therapy into adolescent depression treatment. This research should focus on the effectiveness (short and long term) of involving the family, or parts of the family, into adolescent depression treatment and family communication. The purpose of further research would be to identify specific ways of incorporating the family into
treatment to improve and challenge unproductive communication cycles and behaviors as well as to attend to the adolescent depression.

**Limitations of the Study**

As with any research investigation, there are limitations that can potentially influence the conclusions of the study. The following section will discuss the limitations that exist for this study and should be considered when interpreting the results.

The first limitation for this study was the utilization of self-report scales due to the inability to control the variables (parents’ and adolescents’ reports of family communication and adolescent’s report of depression symptoms) due to the study’s design. Therefore, the study results could only identify the relationships between parent-communication and adolescent depression, but not underlying causal mechanisms (Heppner et al., 2008). Additionally, the possible limitation of self-report measures for adolescents and even more so for children (preadolescents) needs to be taken into account when interpreting the data (Deighton et al., 2014). The use of self-report measures was also a limitation, due to the scales only measuring the individual’s interpretation of the communication or symptoms and not objective or standard observations (Kaye et al., 2014). Another limitation of using self-report measures is that they have inconsistent concordance rates, depending on the specific assessment or pattern being assessed (Mazefsky, Kao, & Oswald, 2010). Future research might incorporate other assessment measures to determine child depression and family communication.

A second limitation to the study was that participants were adolescents and their families who were scheduled for an intake assessment for an intensive treatment
program. This limits the ability to generalize these results to those who were not recommended or sought out treatment in an intensive treatment program.

The third limitation was that the data analysis did not utilize dyadic data analysis and instead treated the data as individual entities. This violated the non-independent aspects of the data (Kenny, Kashy, & Cook, 2006) and did not measure the shared experience that occurred within the family communication. The data was unable to be run as dyadic data due to it being preexisting data that was collected as independent data. Meaning there was not enough data that was clumped into family groups (i.e., adolescent, mother, and father) so it had to be separated out as individual scales. Although this is a limitation to be aware of when interpreting the data, other research studies have found that interpreting the data as independent, even though it violates the non-independent concept, still provides effective contributions to the research community (Fang, Schinke, & Cole, 2009; Kelada, Hasking, & Melvin, 2016; Olsen et al., 1999; Reed & Dubow, 1997; Street, Harris-Britt, & Walker-Barnes, 2009).

The fourth limitation of this study was the amount of empirical data that was collected from fathers. Although fathers often participated in the family therapy during the intensive services treatment, many of them did not complete the Family Communication Scale. This limitation is not uncommon within other adolescent depression studies involving fathers, mothers, and adolescents (Vazsonyi & Belliston, 2006). In this and other studies, the fathers had a much lesser representation of empirically validated quantitative information than the mothers or the adolescents. The restricted amount of empirical data from the fathers led to not using the fathers’ report of family communication for this study.
A fifth limitation was that the study only assessed family communication and adolescent depression symptoms. Other factors, such as anxiety or other mental health symptoms, family living situation (two married parents, single parent, divorced parents, stepsiblings, half-siblings, visitation schedule, etc.), family dynamics relating to parenting styles and sibling dynamics, were not explored in this study and may have had an impact on other variables.

The sixth limitation of this study was that the mothers’ demographic information (i.e., socio-economic status, education, age, mental and physical health issues, etc.) was unavailable to assess their relationship with poor parent-adolescent communication and adolescent depression symptoms. The demographic information was limited due to the data being from a preexisting data collection process.

A seventh limitation was that participants were predominantly Caucasian (88.6%), making it difficult to generalize the study’s findings to other races and cultures. In addition, the majority of participants were female (79.6%), which makes it difficult to generalize all findings across genders.

**Summary**

This chapter included a review of the research problem and provided a summary of the research procedures and methods. A brief summarization of the hypotheses and the implications of these hypotheses’ findings were provided. Implications of the research findings and suggestions for future research were discussed. Lastly, the limitations of this study were provided in the final section.

Even though there was not a significant correlation between the mothers’ perception of family communication and the adolescents’ reports of depression
symptoms, this study still clearly encouraged the incorporation of family members into adolescent depression treatment. This supports the General Systems Theory because the treatment helps families communicate more openly, which may improve the adolescent’s perception of the family’s communication, therefore possibly improving the adolescent’s depression symptoms.

Although there is limited research in the field of marriage and family therapy that deals with parent-adolescent communication and adolescent depression, this study is a benefit to the field because it has laid a foundation and can be built upon in future studies.
REFERENCES


101


106


112


APPENDICES
APPENDIX A

INFORMED CONSENT FOR PARENTS (CONSENT FOR ADOLESCENTS)

Your child is invited to participate in a research project being conducted by Akron Children’s Hospital’s Division of Psychiatry and Psychology and the University of Akron related to the family therapy and multi-family group treatment. This study examines the relationship between family cohesion and overall symptoms of distress of family members. Your child will be provided with feedback on the results of the measures you complete as part of the family therapy treatment. Additionally, this data will be recorded in a database, in order to analyze the effectiveness of the treatment as a whole.

All of the forms completed as part of the study are the same ones that would be completed as a participant in the family therapy treatment. Upon choosing to participate in this study, the data (without names or other identifying information) will be collected in a research database with other participants’ responses. If you decline your child to participate in the study, the same forms will be completed throughout the program, but the data will not be included in the research study.

While no negative effects are anticipated as a result of participating in this study, there may be some minimal risks involved. These include the potential for experiencing some mild distress with having to recall and evaluate your family’s conflict, stress, and communication as well as level of disruptive behavior’s within your family. Additionally, completion of the measures will take some time (a few minutes for each) and will require both reflection and concentration. If your child feels any distress related to completion of the rating forms or participation in this study, they may discuss these concerns with the co-principal investigators of this study (Ryan Cook, LPCC-S, MFT; Douglas Straight, LPCC-S and Dr. Karin Jordan). Also, you may withdraw the data from the study at any time without worry that it will have any negative effect on your treatment.

Participation in this study will help clinical professionals better understand the relationship between family cohesion and distress and the effectiveness of family therapy treatment. Participation is completely voluntary; treatment within the family therapy treatment or any programs at Akron Children’s Hospital will not be affected by your child’s decision to decline or accept the study invitation.
The information provided will be kept confidential within the limits of the law. Your contact information will not be used for any purposes outside of this project. Similar to all Protected Health Information (PHI), all data obtained will be kept in the medical chart/electronic medical record and will utilize a number of different HIPAA-related safeguards (e.g., passwords, viewing restrictions) to prevent access of the records by unauthorized persons. Information collected in the study database will be de-identified. That is, name and contact information will not be linked to your child’s responses in the database. Any documents that are in the process of being scored or entered will be kept in a locked filing cabinet and will only be accessed by the investigators.

If you have any questions about this study, you may call Douglas Straight at (330) 543-4747 or Ryan Cook, LPCC-S, MFT at (330) 543-4394. This project has been reviewed and approved by Akron Children’s Hospital and The University of Akron’s Institutional Review Boards (IRB). If you have any questions about Akron Children’s Hospital and The University of Akron’s rules for research, please contact Akron Children’s Hospital Institutional Review Board at (330) 543-8725.

I have read the information above, and all of my questions have been answered. I voluntarily agree to participate in this study. I will receive a copy of this consent form for my records.

___________________________  _________________________
Parent/Guardian Printed Name  Witness’ Printed Name

___________________________  ________
Parent/Guardian Signature  Date

___________________________  ________
Witness’ Signature  Date

________________________________
Child’s Name (Print)
APPENDIX B

INFORMED CONSENT FOR PARENTS

You are invited to participate in a research project being conducted by Akron Children’s Hospital’s Division of Psychiatry and Psychology related to the family therapy and multi-family group treatment. This study examines the relationship between family cohesion and overall symptoms of distress of family members. You will be provided with feedback on the results of the measures you complete as part of the family therapy treatment. Additionally, this data will be recorded in a database, in order to analyze the effectiveness of the treatment as a whole.

All of the forms you complete as part of the study are the same ones you would complete as a participant in the family therapy treatment. If you choose to participate in this study, your data (without your name or other identifying information) will be collected in a research database with other participants’ responses. If you decline to participate in the study, you will complete the same forms throughout the program, but your data will not be included in the research study.

While no negative effects are anticipated as a result of participating in this study, there may be some minimal risks involved. These include the potential for experiencing some mild distress with having to recall and evaluate your family’s conflict, stress, and communication as well as level of disruptive behavior’s within your family. Additionally, completion of the measures will take some time (a few minutes for each) and will require both reflection and concentration. If you feel any distress related to completion of the rating forms or participation in this study, you may discuss these concerns with the co-principal investigators of this study (Ryan Cook, Douglas Straight and Dr. Karin Jordan). Also, you may withdraw your data from the study at any time without worry that it will have any negative effect on your treatment.

Your participation in this study will help clinical professionals better understand the relationship between family communication and distress and the effectiveness of family therapy treatment.

**Participation is completely voluntary:** your treatment within the family therapy treatment or any programs at Akron Children’s Hospital will not be affected by your decision to decline or accept the study invitation.
The information you provide will be kept confidential within the limits of the law. Your contact information will not be used for any purposes outside of this project. Similar to all Protected Health Information (PHI), all data obtained will be kept in your medical chart/electronic medical record and will utilize a number of different HIPAA-related safeguards (e.g., passwords, viewing restrictions) to prevent access of your records by unauthorized persons. Information collected in the study database will be de-identified. That is, your name and contact information will not be linked to your responses in the database. Any documents that are in the process of being scored or entered will be kept in a locked filing cabinet and will only be accessed by the investigators.

If you have any questions about this study, you may call Douglas Straight, LPCC-S at (330) 543-4747 or Ryan Cook, LPCC, MFT at (330) 543-4394. This project has been reviewed and approved by Akron Children’s Hospital’s Institutional Review Board (IRB). If you have any questions about Akron Children’s Hospital rules for research, please contact Akron Children’s Hospital Institutional Review Board at (330) 543-8725.

I have read the information above, and all of my questions have been answered. I voluntarily agree to participate in this study. I will receive a copy of this consent form for my records.

________________________  ________________________
Participant’s Printed Name  Witness’ Printed Name

________________________  __________  ________________________  __________
Participant’s Signature  Date  Witness’ Signature  Date
APPENDIX C

ADOLESCENT ASSENT FORM

My name is Ryan Cook; I am a mental health therapist at Akron Children’s Hospital and a doctoral student at The University of Akron.

I am asking you to take part in a research study due to my desire to learn more about how parents and child communication and family structure affects the way an adolescent reacts in stressful situations. I also want to learn how successful different counseling interventions are in helping families talk about and work through depression and anxiety issues as well as ways they work out frustrations and augments when someone gets angry or overreacts.

Some questions that are asked may bring up uncomfortable feelings in you and if this happens you can talk about them with the counselor or group leader.

One benefit of you participating in this study is that counselors in the future may have a better understanding about what interventions can be most helpful with other adolescents going through what you have experiencing. The findings of the study may benefit them in the future.

Please talk this over with your parent(s) before you decide whether or not to participate. I will also ask your parent(s) to give you permission to participate in this study; even if your parents say “yes,” you can still decide to decline your information to participate in the study.

If you do not want to be in the study your information will not be used for this study. Remember, being in the study is up to you and no one will be upset if you decline now or change your mind later and want to stop the study.

You can ask any questions you have about the study. If you have a question later and cannot think of any now you can always ask the counselor or group leader your question.
Signing your name at the bottom means you agree to be in the study. You will be given a copy of this form to keep.

<table>
<thead>
<tr>
<th>Name of Client (Printed Name)</th>
<th>Witness’ Printed Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of Client</td>
<td>Date</td>
</tr>
<tr>
<td>Witness’ Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>
APPENDIX D

DEMOGRAPHIC INFORMATION

1. Child’s date of birth: __________
2. Child’s current age: __________
3. Child’s Gender: __________
   - [ ] Male
   - [ ] Female
4. Child’s ethnicity/race (please check only one):
   - [ ] Caucasian/White
   - [ ] Asian/Pacific Islander
   - [ ] Black/African-American
   - [ ] Native American/Alaska Native
   - [ ] Biracial
   - [ ] Other (please indicate: __________)
   - [ ] Hispanic/Latino
5. Child’s insurance status: Type equation here.
   - [ ] Public/Medicaid
   - [ ] Private insurance
   - [ ] Other (please indicate: __________)
6. Your current marital status:
   - [ ] Single
   - [ ] Married
   - [ ] Divorced
7. Your Gender:
   - [ ] Male
   - [ ] Female
8. Your relationship to child:

☐ Biological Parent  ☐ Foster Parent
☐ Adopted Parent  ☐ Grandparent
☐ Legal Guardian  ☐ Stepparent
☐ Other (please indicate: ______________)
APPENDIX E

FAMILY COMMUNICATION SCALE: DIRECTIONS FOR
SCORING AND INTERPRETATION

Scoring Procedures (Items 43-52)
1. Add all items of the Family Communication Scale.
2. The sum of these items is the Raw Score.
3. The range of scores is from 10-50.
4. Plot the percentile score on the Plotting Chart.

Family Communication: Interpretation of Scores

<table>
<thead>
<tr>
<th>Percentage and Levels</th>
<th>Family Communication</th>
<th>Family Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Raw Score</td>
</tr>
<tr>
<td>Very High 86-99%</td>
<td>Family members feel very positive about the quality and quantity of their family communication.</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>49</td>
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<td></td>
<td>48</td>
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<td></td>
<td>45</td>
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<tr>
<td></td>
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<td>44</td>
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<tr>
<td>High 61-85%</td>
<td>Family members feel good about their family communication and have few concerns.</td>
<td>43</td>
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<td>42</td>
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<td>40</td>
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<td></td>
<td>39</td>
</tr>
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<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Moderate 36-60%</td>
<td>Family members feel generally good about their family communication, but have some concerns.</td>
<td>37</td>
</tr>
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<td></td>
<td>36</td>
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<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Low 21-35%</td>
<td>Family members have several concerns about the quality of their family communication.</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Very Low 10-20%</td>
<td>Family members have many concerns about the quality of their family communication.</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>21</td>
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<td>18</td>
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<td></td>
<td>27</td>
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<tr>
<td></td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>10-23</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Communication</th>
<th>Standard Mean*</th>
<th>Deviation</th>
<th>Alpha Reliability</th>
<th>Test-Retest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36.2</td>
<td>9.0</td>
<td>.90</td>
<td>.86</td>
</tr>
</tbody>
</table>

*Mean and scoring levels based on 2,465 Pearsons
APPENDIX F

SUMMARY OF REVISED CHILD ANXIETY AND DEPRESSION SCALE (RCADS)

Background

The Revised Child Anxiety and Depression Scale (RCADS) is a 47-item, youth self-report questionnaire with subscales including: separation anxiety disorder (SAD), social phobia (SP), generalized anxiety disorder (GAD), panic disorder (PD), obsessive compulsive disorder (OCD), and major depressive disorder (MDD). It also yields a Total Anxiety Scale (sum of the 5 anxiety subscales) and a Total Internalizing Scale (sum of all 6 subscales). Items are rated on a 4-point Likert-scale from 0 ("never") to 3 ("always"). Additionally, The Revised Child Anxiety and Depression Scale – Parent Version (RCADS-P) similarly assesses parent report of youth’s symptoms of anxiety and depression across the same six subscales.

Scoring

The RCADS and RCADS-P can be scored either manually or by using an automated scoring procedure.

Manual Scoring

To score the RCADS manually, each item is assigned a numerical value from 0-3, where 0 = Never, 1 = Sometimes, 2 = Often, and 3 = Always. For each subscale add the numerical values for each item together. The items that comprise each subscale are listed
below. For example, for Generalized Anxiety you would add the numerical values for items 1, 13, 22, 27, 35, and 37. Thus, the highest score possible is 18, the lowest 0.

**Disorder/Syndrome Related Items**

- Social Phobia 4, 7, 8, 12, 20, 30, 32, 38, 43
- Panic Disorder 3, 14, 24, 26, 28, 34, 36, 39, 41
- Major Depression 2, 6, 11, 15, 19, 21, 25, 29, 40, 47
- Separation Anxiety 5, 9, 17, 18, 33, 45, 46
- Generalized Anxiety 1, 13, 22, 27, 35, 37
- Obsessive-Compulsive 10,16, 23, 31, 42, 44

Using the raw score for each subscale, look up the corresponding T-score from the appropriate grade level chart in the Appendices. For example, if the raw score for a girl in 5th grade on the SP (Social Phobia) subscale was 12, the T-score would be 48.

**Automated Scoring**

Scoring programs for youth and parent versions are available at www.childfirst.ucla.edu/resources.html for scoring the RCADS and calculating T scores. Begin by entering youth’s gender and grade level on top right hand corner. Note: only grade level should be entered (not youth age). Continue by entering scores (0-3) for all 47 items. Raw scores by subscale will be generated and data points plotted along the corresponding figure. The figure shows a dashed line at $T = 65$. T scores of 65 or higher will show in a yellow background, indicating scores at the borderline clinical threshold. T score of 70 or higher will show in an orange background, indicating scores above the clinical threshold.
Languages

The RCADS is available in English (US), Spanish (US), Chinese, Dutch and Danish. The RCADS-P is available in English (US), Spanish (US), Dutch and Danish. Currently, norms and scoring programs for both the RCADS and RCADS-P are based on English versions. Use of norms and interpretation of T-scores should be done cautiously with non-English versions, as research is still underway on these instruments. Users are encouraged to check the UCLA Child First Site (www.childfirst.ucla.edu) for updates on additional scoring programs, and updates to norms will continue to be posted as new research emerges.
APPENDIX G

CITI COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE

CITI Collaborative Institutional Training Initiative
Human Research Gradebooks Curriculum Completion Report
Printed on 11/14/2013

Learner: Ryan Cook (ID: 3807331)
Institution: The University of Akron (Department of Counseling)
Contact Information: 3926 Golden Wood Way
Uniontown, Ohio 44685 USA
Phone: 330-933-4547
Email: rmc41@zips.uakron.edu

SBR Researchers:
Basic Course 1 Passed on 11/14/2013 (Ref # 11466114)

<table>
<thead>
<tr>
<th>Required Modules</th>
<th>Date Completed</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont Report and CITI Course Introduction</td>
<td>10/15/13</td>
<td>3/3 (100%)</td>
</tr>
<tr>
<td>History and Ethical Principles – SBE</td>
<td>10/23/13</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Defining Research with Human Subjects – SBE</td>
<td>10/28/15</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>The Regulations – SBE</td>
<td>11/12/13</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Assessing Risk – SBE</td>
<td>11/12/13</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Informed Consent – SBE</td>
<td>11/12/13</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Privacy and Confidentiality – SBE</td>
<td>11/14/13</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>The University of Akron – HSR</td>
<td>11/14/13</td>
<td>No Quiz</td>
</tr>
</tbody>
</table>

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid Independent Learner.
Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger, Ph.D.
Professor, University of Miami
Director Office of Research Education – CITI Program Course Coordinator
APPENDIX H

IRB PERMISSION LETTER

NOTICE OF APPROVAL

Date: May 12, 2016

To: Ryan Cook; Karin Jordan,
School of Counseling

From: Sharon McWhorter, IRB Administrator

IRB Number: 20160506

Title: Parent-Adolescent Communication and Adolescent Depression in a Partial Hospitalization Treatment Program

Approval Date: May 11, 2016

Thank you for submitting your IRB Application for review. Your protocol represents minimal risk to subjects and matches the following federal category for exemption:

☐ Exemption 1 – Research conducted in established or commonly accepted educational settings, involving normal educational practices.

☐ Exemption 2 – Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.

☐ Exemption 3 – Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.

☐ Exemption 4 – Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.

☐ Exemption 5 – Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.

☐ Exemption 6 – Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study’s design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemption category, please contact the IRB to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. This office will hold your exemption application for a period of three years from the approval date. If you wish to continue this protocol beyond this period, you will need to submit another Exemption Request. If the research is being conducted for a master’s thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

☐ Approved consent forms enclosed

OHIO’S POLYTECHNIC UNIVERSITY
Uniting the Arts & Humanities with Science & Technology

139
APPENDIX I
NOTICE OF APPROVAL

September 23, 2014

Ryan Cook, PCC, MFT
Division of Psychiatry and Psychology
Akron Children’s Hospital
One Perkins Square
Akron, OH 44305

Re: Outpatient Multi-Family Group and Family Therapy Treatment Outcomes Study
IRB No: 131012

Dear Mr. Cook,

The IRB Chair reviewed the following materials submitted in support of renewal of the above-named study due for review on October 7, 2014:

- A report indicating current status and activity, adverse reactions or unexpected events and approved change to protocol or consent/assent since the last review.
- A current copy of the informed consent and assent.
- An interim report of the study including any findings or any new literature which has relevance for the study.

Upon review of these materials:

- Expedited review was deemed appropriate because:
  - The study is minimal risk and no new risks have been identified.

The original stipulations remain in full effect as if restated here. This renewal is time-limited and extends from September 23, 2014 to September 22, 2015 at which time it expires if not submitted for review and renewal.

Sincerely,

[Signature]

Robert W. Novak, M.D.
Chairman, Institutional Review Board
RWNJhs
APPENDIX J

PERMISSION TO USE FAMILY COMMUNICATION SCALE

PREPARE ENRICH LLC

Ryan Cook
December 1, 2015

Permission to use
Family Communication Scale

We are pleased to give you permission to use the Family Communication Scale in your research project, teaching or clinical work with couples or families. You may either duplicate the materials directly or have them retyped for use in a new format. If they are retyped, acknowledgement should be given regarding the name of the instrument, the developers’ names, and PREPARE/ENRICH, LLC.

In exchange for providing this permission, we would appreciate a copy of any papers, theses or reports that you complete using Family Communication Scale. This will help us to stay abreast of the most recent developments and research regarding this scale. We thank you for your cooperation in this effort.

In closing, I hope you find Family Communication Scale of value in your work with couples and families. Good luck with your project!
APPENDIX K

REVISED CHILD ANXIETY AND DEPRESSION SCALE

Please put a circle around the word that shows how often each of these things happen to you. There are no right or wrong answers. When answering, please think about if these things happened to you in the past one month.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I worry about things . . . . . . . . . . . . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I feel sad or empty . . . . . . . . . . . . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>When I have a problem, I get a funny feeling in my stomach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I worry when I think I have done poorly at something</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I would feel afraid of being on my own at home</td>
<td></td>
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<tr>
<td>6.</td>
<td>Nothing is much fun anymore . . . . . . . . . . .</td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>I feel scared when I have to take a test . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I feel worried when I think someone is angry with me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I worry about being away from my parents . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I get bothered by bad or silly thoughts or pictures in my mind</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I have trouble sleeping . . . . . . . . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I worry that I will do badly at my school work . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I worry that something awful will happen to someone in my family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I suddenly feel as if I can’t breathe when there is no reason for this</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I have problems with my appetite . . . . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I have to keep checking that I have done things right (like the switch is of, or the door is locked)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

142
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>I feel scared if I have to sleep on my own</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>18</td>
<td>I have trouble going to school in the mornings because I feel nervous or afraid</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>19</td>
<td>I have no energy for things</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>20</td>
<td>I worry I might look foolish</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>21</td>
<td>I am tired a lot</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>22</td>
<td>I worry that bad things will happen to me</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>23</td>
<td>I can’t seem to get bad or silly thoughts out of my head</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>24</td>
<td>When I have a problem, my heart beats really fast</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>25</td>
<td>I cannot think clearly</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>26</td>
<td>I suddenly start to tremble or shake when there is no reason for this</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>27</td>
<td>I worry that something bad will happen to me</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>28</td>
<td>When I have a problem, I feel shaky</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>29</td>
<td>I feel worthless</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>30</td>
<td>I worry about making mistakes</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>31</td>
<td>I have to think of special thoughts (like numbers or words) to stop bad things from happening</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>32</td>
<td>I worry what other people think of me</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>33</td>
<td>I am afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds)</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>34</td>
<td>All of a sudden, I feel really scared for no reason at all</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>35</td>
<td>I worry about what is going to happen</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>36</td>
<td>I suddenly become dizzy or faint when there is no reason for this</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>37</td>
<td>I think about death</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>38</td>
<td>I feel afraid if I have to talk in front of my class</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>39</td>
<td>My heart suddenly starts to beat too quickly for no reason</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>40</td>
<td>I feel like I don’t want to move</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>41</td>
<td>I worry that I will suddenly get a scared feeling when there is nothing to be afraid of</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>42</td>
<td>I have to do something things over and over again (like washing my hands, cleaning or putting things in a</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>Scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>I feel afraid that I will make a fool of myself in front of people</td>
<td>Never - Sometimes - Often - Always</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>I have to do some things in just the right way to stop bad things from happening</td>
<td>Never - Sometimes - Often - Always</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>I worry when I go to bed at night</td>
<td>Never - Sometimes - Often - Always</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>I would feel scared if I had to stay away from home overnight</td>
<td>Never - Sometimes - Often - Always</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>I feel restless</td>
<td>Never - Sometimes - Often - Always</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX L

FAMILY COMMUNICATION SCALE

By David H. Olson, Ph.D., PREPARE/ENRICH, LLC.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Generally Disagree</th>
<th>Undecided</th>
<th>Generally Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family members are satisfied with how they communicate with each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Family members are very good listeners.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Family members express affection to each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Family members are able to ask each other for what they want.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Family members can calmly discuss problems with each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Family members discuss their ideas and beliefs with each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. When family members ask questions of each other, they get honest answers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Family members try to understand each other’s feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When angry, family members seldom say negative things about each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Family members express their true feelings to each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### Major Depressive Episode

**Criteria:**
- Depressed mood or loss of interest or pleasure in daily activities for more than two weeks;
- Mood represents a change from the person’s baseline
- Impaired functioning in social, occupational, or education settings
- Must have five of the nine symptoms almost every day.
- Specific symptoms of:
  - 1) Depressed mood or irritability most or nearly every day, subject reported or observed by others
  - 2) Decreased interest or pleasure in most activities
  - 3) Significant weight changes (5%) or changes in appetite
  - 4) Changes in sleep: insomnia or hypersomnia
  - 5) Changes in activities: psychomotor or agitation or retardation
  - 6) Fatigue or loss of energy
  - 7) Guilt / worthlessness: feeling worthless or excessive or inappropriate guilt
  - 8) Difficulty concentrating
  - 9) Suicidality: thoughts / plan of death or suicide.

* DSM-5 also encourages assessment of anxiety symptoms that may indicate depression such as irrational worry, preoccupation with unpleasant worries, trouble relaxing, feeling tense, and fear that something awful might happen.

---

Note: Adapted from DSM 5 (APA 2013)
<table>
<thead>
<tr>
<th>General Systems Family Therapy</th>
<th>Individual Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes multiple family/system members in a session.</td>
<td>Includes one individual at a time in a session.</td>
</tr>
<tr>
<td>Asks multiple members to dialog on the current issue to gather differing perspectives.</td>
<td>Utilizes the individual’s perspective as primary focus.</td>
</tr>
<tr>
<td>Has multiple members interact together during a therapy session.</td>
<td>Has one individual process their emotions and thoughts during a therapy session.</td>
</tr>
<tr>
<td>Attempts to alter the interaction patterns of family/system member to improve unhelpful exchanges.</td>
<td>Attempts to alter the individual’s reactions and behaviors.</td>
</tr>
</tbody>
</table>

Figure 1. Differences between General Systems Family Therapy and Individual Therapy