LIFE SATISFACTION IN CHILDREN WITH ADHD:

A MIXED METHODS STUDY

By

Patricia A. Barfield

A Dissertation

Presented to
Oregon Health & Science University
School of Nursing
in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

June 30, 2017

ACKNOWLEDGEMENT OF FINANCIAL SUPPORT

This dissertation was supported by:

Sigma Theta Tau International (STTI), Beta Psi Chapter
Naomi Ballard Nursing Research Award

And

Oregon Health & Science University School of Nursing
Dean's Award for Doctoral Dissertation

ACKNOWLEDGEMENTS

It is with deep gratitude that I acknowledge the following individuals for their support of this study:

The children who participated in the study and who bravely shared their thoughts, feelings, and stories with me.

My committee chair and the curator of my PhD flame, Martha Driessnack PhD, PNP-BC, who brilliantly inspired, guided, and nudged me along with her intellect, humor, and grace.

My committee members Nancy Findholt PhD and Gail Houck PhD, your ever-steady presence and guidance helped to elevate my work.

My colleagues and kindred spirits, especially Basilia Basin PhD and Mark Lockwood PhD, your encouragement kept me afloat, and your friendship enriched my journey.

My family, especially my mother Marge Needham, a single mother who raised a willful daughter, you shaped my very essence.

To my children, Amanda Stewart, Melissa Wieland, and Sam Barfield. I am humbled by your unwavering belief in me and sustained by your love and encouragement.

To my beautiful granddaughters, Olivia, Norah, Emery, Eisley, and Audrey. You show me the wonder in the world daily.

To my husband, Patrick, you kept the world around me in perfect order while my head was down. Your dedication and support means everything.

At times our own light goes out and is rekindled by a spark from another person. Each of us has cause to think with deep gratitude of those who have lighted the flame within us.

-Albert Schweitzer

ABSTRACT

Children with ADHD are primarily assessed and understood through an adult proxy lens focused on ADHD-related symptoms and problems. This study shifts the perspective away from an adult proxy view of symptoms and problems, towards the child's view of life satisfaction. Currently, little is known about how children with ADHD evaluate their life satisfaction or how incorporating the child's view of life satisfaction might enhance the current understanding or change the approach to assessment and/or interventions. The purpose of this study was to explore and describe how children with ADHD evaluate their life satisfaction.

A parallel convergent mixed-methods (QUAL + quan) design was used to collect data from a convenience sample of children with ADHD ($N = 20$) age 7 to 11 years old from rural and urban Oregon communities. Semi-structured interviews were conducted with the children, using the technique of Draw-And-Tell Conversation (DTC) and the Multidimensional Student Life Satisfaction Scale (MSLSS). Parents provided contextual data of demographics, ADHD-related items, and health literacy. Data were analyzed using a descriptive approach within, across, and within/across methods and contextual variables.

Three themes emerged in the DTC qualitative analysis - *Activity, Nature,* and *Connections*. Most children (90%) described engaging in some form of activity, often outdoors, and with others. Nature was evidenced directly and indirectly in many of the children's (85%) stories. Over half (65%) of the children described some variation in relational connections. In the MSLSS quantitative data, children rated the MSLSS domains in order of *Friends* ($M = 3.24$, $SD = .60$), *Living Environment* ($M = 3.14$, $SD = .51$), *Family* ($M = 3.08$, $SD = .51$), *School* ($M = 3.0$, $SD = .65$), and *Self* ($M = 2.93$, $SD = .60$), with a total mean life satisfaction score of 3.08 ($SD =$

.35). Children's MSLSS scores were comparable to normative data and their commentary enriched the DTC and MSLSS data.

Broadening the clinical lens beyond an adult-proxy view of pathology to include a child-centered view of life satisfaction has the potential to increase our contextualized understanding of children with ADHD and move us beyond the standard symptom and behavior control approach of intervention, towards integrating interventions that build on children's natural health promoting interests (i.e., nature, activity, and connections). In particular, the 'prescription' of outdoor activities that both engage and empower children and families and the development of family-, school-, community- based interventions that are non-pharmacological and non-stigmatizing.

TABLE OF CONTENTS

LIST OF TABLES ix

LIST OF FIGURES x

CHAPTER 1: INTRODUCTION 1

Attention Deficit Hyperactivity Disorder (ADHD) 1

Well-Being and Life Satisfaction 5

Summary 7

Purpose of the Study 7

Significance to Nursing 8

CHAPTER 2: REVIEW OF THE LITERATURE 10

Overview 10

Children with ADHD 10

The Psychosocial Impact of ADHD 15

The Current Approach to ADHD Assessment and Treatment 23

A Shift to Well-Being 26

Life Satisfaction 29

Summary 38

Children in Research 39

Child-centered Inquiry 43

Theoretical Framework 46

Chapter Summary 49

CHAPTER 3: RESEARCH DESIGN AND METHODS 51

Participants and Setting 53

Data Collection Process and Procedure 55
Child Data 56
Parent Contextual Data 60
Data Analysis Process and Procedure 62
Procedures for Ensuring Data Integrity and Methodological Rigor 65
The Protection of Human Rights 66
Other Ethical Considerations 67
CHAPTER 4: RESULTS 68
Participant Demographics 68
Participant Interviews 69
Data Analysis I: WITHIN Methods 69
Data Analysis II: ACROSS Methods 75
Data Analysis III: Within/Across Methods and Contextual Variables 81
DTC Themes and Contextual Variables 81
MSLSS Scores and Contextual Variables 82
Child/Parent Literacy 83
An Integrated Understanding 83
CHAPTER 5: DISCUSSION 86
DTC and Life Satisfaction 87
MSLSS and Life Satisfaction 90
An Integrated Summary of Life Satisfaction 95
Conclusion 96
Implications for Nursing 97

Strengths and Limitations 99

Recommendations for Future Study 99

Personal Reflection 100

REFERENCES 101

APPENDIX A: RECRUITMENT FLIER 129

APPENDIX B: TELEPHONE SCRIPT 130

APPENDIX C: IRB APPROVAL LETTER 131

APPENDIX D: PARENTAL CONSENT 133

APPENDIX E: CHILD ASSENT 139

APPENDIX F: THE MULTIDIMENSIONAL STUDENT LIFE SATISFACTION SCALE .. 140

APPENDIX G: DEMOGRAPHIC/ADHD DATA MATRIX 143

APPENDIX H: VANDERBILT ASSESSMENT SCALE PARENT FORM 145

APPENDIX I: NEWEST VITAL SIGN (NVS) QUESTIONNAIRE 148

APPENDIX J: ACROSS METHODS DATA ANALYSIS MATRIX 150

APPENDIX K: NARRATIVE FRAME 151

APPENDIX L: CHILD SYNOPSES 155

LIST OF TABLES

Table 1. ADHD Diagnostic Criteria 12

Table 2. Vanderbilt Assessment Scale – Parent Information, ADHD Items 24

Table 3. Groups from the Dual-Factor Model of Mental Health 28

Table 4. DTC Drawing Prompts & Probes 57

Table 5. MSLSS Domain Items 58

Table 6. Connections Continuum 72

Table 7. MSLSS Descriptive Statistics 74

Table 8. MSLSS Mean Comparison Scores 74

Table 9. MSLSS Commentary and Friends 77

Table 10. MSLSS Commentary and Self 78

LIST OF FIGURES

Figure 1. Bronfenbrenner's bioecological model of human development. 47

Figure 2. Visual representation of data collection and analysis..... 52

Figure 3. Initial descriptive codes. 70

CHAPTER 1: INTRODUCTION

Children are being diagnosed with mental disorders at increasing rates. The CDC estimates that one in five U.S. children (20%) will experience a mental disorder in a given year (Perou et al., 2013). Half of all mental disorders are reported to begin prior to age 14, and 75% prior to age 24 (Kessler et al., 2005; Perou et al., 2013). By definition, a mental disorder impairs an individual's ability to think, feel, and act (American Psychiatric Association, 2013). Mental disorders that have an onset in childhood are classified as neurodevelopmental disorders.

In order to obtain a diagnosis and to initiate treatment, children and their families must navigate the existing healthcare system, which is still struggling to improve access to children's mental health services, often relocating mental health services to primary care (Goodwin & Saunders, 2014). Mental health resources continue to be inequitably distributed, with greater gaps between the needs for treatment and available services in rural communities compared to urban communities (Cummings, Wen, & Druss, 2013). Although all children with mental disorders are susceptible to additional struggles and scrutiny, children with Attention Deficit Hyperactivity Disorder (ADHD) are particularly vulnerable to the consequences of unrecognized and unmet mental health needs (Barkley, 2015; Jensen et al., 2011; Walker, Coleman, Lee, Squire, & Frieson, 2008).

Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is the most commonly diagnosed mental disorder in children, and the overall prevalence is rising (Barkley, 2015; Perou et al., 2013; Visser et al., 2014). The 2011-2012 National Survey of Children's Health (NSCH) reported that 6.4 million U.S. children/adolescents between ages 4 to 17 years have been given a diagnosis of ADHD, signaling a 42% increase between the 2003-2004 and 2011-2012 surveys (Visser et al., 2014). As the prevalence rates

have increased, so too have the number of children being medicated for ADHD, which climbed as much as 28% between the 2007 and 2011 surveys (Visser et al., 2014). In the 2009-2010 National Survey of Children with Special Health Care Needs, 82.6% of children and adolescents diagnosed with ADHD had taken medication in the previous year, 44% had received behavioral therapy, and 31% had received both (Visser et al., 2015a). By far, the most commonly prescribed medication for ADHD is psychostimulants (84.8%); although effective at reducing ADHD symptoms, these medications have known side effects, including a decrease in appetite and growth (Barkley, 2015). These results have highlighted the increasing numbers of children being diagnosed with ADHD and the heavy reliance on pharmacological treatment.

The diagnosis of ADHD in a child can exact serious individual and societal costs, including disrupted psychosocial development, family conflict, peer rejection, academic failure, and/or juvenile delinquency (American Psychiatric Association, 2013; O'Driscoll, Heart, Hennessy, & McKeague, 2012). When ADHD persists into adulthood, the costs are more likely to be reflected in under and/or unemployment, more marital/family problems, and greater use of social services (Davenport, 2015). The last estimated annual fiscal costs of childhood ADHD included $44 billion for treatment services and $25 billion for education services (Ruland, 2012). Spillover costs to families can reach $43 billion annually, as parents often face work disruptions to care for their child with ADHD (Doshi et al., 2012).

Some of the costs associated with ADHD can be attributed to the presence of comorbid mental disorders, including: (a) externalizing disorders, such as oppositional-defiant disorder (ODD) and conduct disorder (CD); (b) internalizing disorders, such as anxiety and depression; and (c) learning disorders (Barkley, 2015; Larson, Russ, Kahn, & Halfon, 2011). For example, one third (33%) of children with ADHD have at least one comorbid mental disorder further

affecting their thinking, feeling, and/or behavior; 16% have two comorbid mental disorders; and 18% have three or more (Larson et al., 2011). Nearly half (46%) of all children with ADHD have one learning disability, which is in contrast with a rate of 5% in unaffected children (Larson et al., 2011). Consequently, children with ADHD may be even more burdened and more vulnerable to the problems and stigma associated with mental disorders.

In national studies of stigma in children's mental health, higher levels of stigmatizing attitudes were directed towards children with ADHD compared to children with physical disorders, such as asthma (Pescosolido, 2007; Walker et al., 2008). Researchers have conceptualized stigma in children with ADHD as an underestimated psychosocial risk factor (Mueller, Kiermaier, Koerts, & Tucha, 2012). This vulnerability comes at a time of active psychosocial development, when children are forming their sense of self and expanding their social networks. Although great strides have been made in understanding the neurobiology of ADHD (Faraone & Mick, 2010) understanding of the psychosocial and environmental aspects has lagged behind (Kildea, Wright, & Davies, 2011). This lag in understanding will continue to affect the well-being of children with ADHD, as they face greater risk of psychosocial stressors and adverse outcomes across all life dimensions (Barkley, 2015; Kendall & Shelton, 2003; Wehmeier, Schacht, & Barkley, 2010).

The prevailing lens through which children with ADHD are assessed and treated is largely disease-based and adult-centered. Pediatric ADHD evaluation and treatment guidelines typically involve adult proxy (parent/teacher) reports of child disease-based symptoms on checklist rating scales (Pliszka, 2007; Wolraich et al., 2011). Yet, mental health is more than the presence or absence of disease-based symptoms, and includes a sense of individual well-being (World Health Organization, n.d.). It is conceivable that modern society's primary disease-based

adult-centric lens may be limiting the understanding of children with ADHD.

In a recent study of ADHD diagnostic assessment, the researchers found that most providers (84.5%) acknowledged that they did collect some information from the children, but did not specify what information and how the information was collected and/or used (Visser, Zablotsky, Holbrook, Danielson, & Bitsko, 2015). The majority (89.9%) of input regarding children with ADHD was obtained via adult proxy reports of disease-based symptoms, from parents (96.3%) and from other adults (81.9%), which are recorded on checklist rating scales (Visser, et al., 2015b). While proxy reports are helpful, they are inherently influenced by the attitudes, beliefs, abilities (e.g., health literacy), and priorities of the proxy, as well as by the questions asked and the information being assessed (Maoz et al., 2014; McLeod, Pescosolido, Takeuchi, & White, 2004; Porter, Guo, Molino, Toomey, & Chan, 2012; Posserud et al., 2014).

The problem is that the subjective experience of children with ADHD is often ancillary to the adult proxy account. Recently, the American Academy of Pediatrics (AAP) treatment guidelines recognized children as sources of information (AAP, 2011). To date, children with ADHD have rarely been seen as the experts in their own lives. In fact, when they have been queried, their accounts have been dismissed as being "positively biased," especially when compared to parallel adult proxy ratings (Barkley, 2015; Hoza et al., 2004; Hoza, Vaughn, Waschbusch, Murray-Close, & McCabe, 2012; Linnea, Hoza, Tomb, & Kaiser, 2012; Mikami, Calhoun, & Abikoff, 2010; Swanson, Owens, & Hinshaw, 2012).

The current approach to clinical practice raises two broad questions. First, what might be learned if children with ADHD were fully engaged in the process and their subjective experience earnestly sought? Second, how might practice change if the clinical lens was broadened to give equal consideration to a focused measure of well-being as a separate and unique health factor?

Indeed, researchers have already demonstrated that disease indicators alone do not provide a complete picture of health (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). This line of thinking invites deeper inquiry when considering the global context of children's mental health and more specifically children with ADHD: (a) How might mental disorder recognition rates and/or intervention efforts be affected if clinicians attend to both indicators of disease and well-being? (b) Is it possible to identify children who are pre-disposed to further (comorbid) psychological problems by recognizing early signs of psychosocial dis/stress evident in their level of individual well-being? (c) Would building on indicators of well-being empower children and families, as to reduce psychosocial risks, including stigma? These questions informed the focus of this study, especially the need to engage children directly and to broaden the clinical lens to include well-being.

Well-Being and Life Satisfaction

Although there is no single definition of well-being, there is some agreement that a sense of well-being includes positive thinking, feeling, and living. From the perspective of positive psychology, subjective well-being, or how and why people experience life positively, is its own dimension and more than just the absence of disease or dis-ease (Diener, 1984, 2000; Diener, Suh, Lucas, & Smith, 1999). According to Diener (1984) subjective well-being consists of two components: an affective component encompassing both positive and negative emotions and a cognitive component, referred to as life satisfaction. As a cognitive construct, life satisfaction is considered the more stable component of subjective well-being (Diener, 1984).

Life satisfaction (LS) is the subjective evaluation an individual makes about the positivity in her/his life (Diener, 1984, 2000). Simply put, LS is how an individual thinks about and assesses her/his own life experience based on internal standards. High LS ratings correlate with a

sense of subjective well-being, while low ratings correlate with mental health problems and adverse outcomes across multiple life domains (Huebner, 2004; Huebner, Suldo, Smith, & McKnight, 2004; Lyons, Otis, Huebner, & Hills, 2014; Sun & Shek, 2010). Importantly, knowledge of children's LS is helpful in predicting psychological functioning (Suldo & Shaffer, 2008). Researchers have indicated that children as young as 8 years old can evaluate their own LS (Huebner, 2004). To date, assessment of LS in children has been mostly limited to research with nonclinical student populations.

One of the most reliable and often used measures of LS in children is the Multidimensional Student Life Satisfaction Scale (MSLSS; Huebner, 2001). The MSLSS has particular salience to this study, as its five key domains align with the known areas of psychosocial risk in children with ADHD, namely: family, friends, school, living environment, and self (Barkley, 2015). The MSLSS is commonly used; however, there is also an alternative approach to language-based, self-report tools in children: the use of art-based data collection techniques that incorporate children's drawing into the interview process (Driessnack & Furukawa, 2011).

One art-based approach is the Draw-and-Tell Conversation (DTC), where children are asked to draw and then tell about their experience (Driessnack, 2006). The DTC approach supports children's natural way of encoding and retrieving information, highlighting their preference for sensory rather than semantic or word-based cues (Wesson & Salmon, 2001). Researchers have found that the act of drawing facilitates children's ability to talk about events and constructs, even those that they may find difficult to explain and discuss (Driessnack, 2005, 2006; Wesson & Salmon, 2001). Art-based approaches such as the DTC capitalize on children's cognitive and developmental strengths, creating a child-centered environment that purposefully

seeks to facilitate insight, communication, and understanding that may not be available in the typical language-based approach (Archibald, Scott, & Hartling, 2014; Coad, 2007; Driessnack, 2005, 2006).

Summary

ADHD is a common and complex disorder that begins in childhood and continues to present psychosocial risks across the lifespan. The prevailing clinical lens to assessment and treatment is disease-based and adult proxy-driven. As a result, clinicians may be missing opportunities in both clinical practice and research to (a) provide patient-centered care, (b) identify early indicators of mental health challenges, including stigmatization, and (c) develop child-specific targeted interventions. By highlighting the child as informant, integrating the child's self-report of well-being, and incorporating a more child-centered approach to data collection, clinicians may better recognize strengths in children's lives that could be nurtured, and researchers may discover burdens and stressors that remain undetected with current approaches and tools.

Purpose of the Study

The broader objective of this study was to explore the subjective life experience of children with a mental disorder, looking specifically at well-being. The researcher selected children with ADHD as a target population because (a) ADHD is the most commonly diagnosed mental disorder in children, (b) ADHD is a complex and controversial mental disorder, placing children with ADHD at risk of experiencing the effects of negative social discourse and stigma, and (c) children with ADHD are vulnerable to psychosocial risks across multiple life domains. Life satisfaction was selected as the construct of well-being, as it is the most stable indicator of subjective well-being. Child-centered inquiry was used to engage and empower children to speak

and be heard, thus eliciting a first-hand account of their subjective life experience.

This study was conducted using a mixed-methods approach to data collection and analysis. Bronfenbrenner's bioecological model of human development provided the theoretical framework. In particular, the researcher used the operational model of Process, Person, Context, and Time (PPCT) in the analysis of the study (Bronfenbrenner & Morris, 2006). The specific aims of this study were to:

1. Describe how children with ADHD evaluate their life satisfaction, using:
    a. The Draw-and-Tell Conversation (DTC);
    b. The Multidimensional Student's Life Satisfaction Scale (MSLSS).
2. Identify patterns and/or clusters of children's responses to DTC and MSLSS within and across methods, and parent-reported contextual variables, including:
    a. Demographics (e.g., sex, age/grade, race/ethnicity, rural/urban, socio-economic status, and household/health literacy);
    b. ADHD-related symptoms, treatment, and comorbid health variables.

Significance to Nursing

Nursing scholarship is built through the discovery and application of new knowledge and the integration of interdisciplinary ideas (Boyer, 1990). Attention to the positive psychological indicators of well-being in children with ADHD aligns with the National Institute of Nursing Research (NINR) goal to integrate biological and behavioral sciences (NINR, 2011). Further, a focus on child-centered inquiry and child well-being supports both the American Nurses Association (ANA) and NINR emphasis on advocating for patients and emphasizing health and well-being (ANA, 2010; NINR, 2014). Embracing children as knowers and actors in their own right adheres to the ethics and values of nursing in regards to respect, relationship, and the right

for self-determination (ANA, 2010). Lastly, the discipline's position of caring about the holistic human health experience mandates that nurses listen to the voices of the children, including those experiencing mental disorders.

The challenges and goals for pediatric mental health nurses and researchers are specifically highlighted in the Surgeon General's National Action Agenda for Children's Mental Health (2000) as (a) to promote social, emotional, and behavioral well-being as an integral part of children's health; (b) to identify early indicators of mental health problems; (c) to improve the assessment and recognition of mental health needs in children; and (d) to reduce mental health stigma. This national agenda is a call to examine and explore *upstream* indicators of well-being.

To date, researchers have given little attention to the child's own interpretation of life events and indicators of mental well-being (Clark, 2011; Kelly, Jones, Wilson, & Lewis, 2012). All children, including children with mental disorders, have the right to have their voices heard and to experience agency about matters that affect their lives. To honor their voices, nurses not only need to listen, but need to do so using approaches that are child-, rather than adult-centered.

CHAPTER 2: REVIEW OF THE LITERATURE

Overview

The review of the literature begins with a focus on children with Attention Deficit Hyperactivity Disorder (ADHD), highlighting the complex and pervasive nature of ADHD and its far-reaching psychosocial impact. Noted throughout this initial discussion is the undercurrent of mental health stigma and gender difference. Attention is focused on the disease-based lens through which children with ADHD are currently assessed and the proxy voices through which they have been understood. The discussion then shifts to the need to include an indicator of subjective well-being with a particular emphasis on life satisfaction (LS). Subsequently, the social, legal, and ethical background of children in research is given prior to introducing child-centered inquiry, purported as one approach to elicit and understand children's perspectives and experiences in research and clinical practice. Finally, Bronfenbrenner and Morris's (2006) most mature form of the bioecological model of human development is presented, including the properties of the Process-Person-Context-Time (PPCT) model, the theoretical framework used to explore and analyze the subjective life experience of children with ADHD.

Children with ADHD

ADHD is the most commonly diagnosed mental disorder in children (Perou et al., 2013). T*he Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013) classifies ADHD as a neurodevelopmental disorder, manifesting in early development and characterized by developmental deficits. ADHD is considered to be of primary genetic and biological origin involving varied structural, functional, and neurochemical abnormalities or deficits (American Psychiatric Association, 2013; Barkley, 2015). Although there is no known etiological factor, there are prenatal, perinatal, and postnatal influences that correlate with

ADHD, including: (a) maternal exposure to alcohol, nicotine, and lead; (b) premature birth, low birth weight, and ischemic birth incidents; (c) exposure to infection and toxins; (d) nutritional and endocrine deficiencies in early development; and (e) physical and/or psychological trauma (American Psychiatric Association, 2013; Barkley, 2015; Kessler et al., 2005; Millichap, 2008). ADHD is also considered to be an environmentally dependent disorder, meaning symptoms can increase or decrease based on the environmental demands (American Psychiatric Association, 2013; Kendall & Shelton, 2003). Parent-child interactions and dietary intake, while not causal, may positively or negatively moderate the course of ADHD-associated behaviors (American Psychiatric Association, 2013; Theule, Wiener, Tannock, & Jenkins, 2013).

One third of children with ADHD are diagnosed before age six, and the median age of diagnosis is age seven (Visser, et al., 2015b). The core features of ADHD include atypical levels of inattention, hyperactivity, and/or impulsivity that exceed developmental norms and impair function at home and school (American Psychiatric Association, 2013). ADHD diagnostic criteria are divided into two categories: inattention and hyperactivity-impulsivity (Table 1). The presentation of ADHD in children can be varied. For example, children exhibiting six or more symptoms of inattention and hyperactivity-impulsivity are said to have *combined presentation*; children with six or more symptoms of inattention, but less than six symptoms of hyperactivity-impulsivity are said to have *predominately inattentive presentation*; and those exhibiting six or more symptoms of hyperactivity-impulsivity but less than six symptoms of inattention are said to have *predominately hyperactive-impulsive presentation* (American Psychiatric Association, 2013). Although symptoms can vary in degree (mild, moderate, severe) and context (home, school), the bottom-line in ADHD is the persistent disruption of normative development and/or function across multiple life domains (American Psychiatric Association, 2013; Kerig, Ludlow,

& Wenar, 2012). Thus, everyday life for a child with ADHD is made more complicated.

Table 1

ADHD Diagnostic Criteria

Criteria	Scoring	Examples
Inattention	Six or more symptoms of inattention for children up to age 16, or five or more for adolescents 17 and older; symptoms of inattention have been present for at least 6 months, and they are inappropriate for developmental level	• Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or with other activities. • Often has trouble holding attention on tasks or play activities. • Often does not seem to listen when spoken to directly. • Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., loses focus, side-tracked). • Often has trouble organizing tasks and activities. • Often avoids, dislikes, or is reluctant to do tasks that require mental effort over a long period of time (such as schoolwork or homework). • Often loses things necessary for tasks and activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones). • Is often easily distracted • Is often forgetful in daily activities.
Hyperactivity and Impulsivity	Six or more symptoms of hyperactivity-impulsivity for	• Often fidgets with or taps hands or feet, or squirms

Criteria	Scoring	Examples
	children up to age 16, or five or more for adolescents 17 and older; symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for the person's developmental level	in seat. • Often leaves seat in situations when remaining seated is expected. • Often runs about or climbs in situations where it is not appropriate (adolescents or adults may be limited to feeling restless). • Often unable to play or take part in leisure activities quietly. • Is often "on the go" acting as if "driven by a motor." • Often talks excessively. • Often blurts out an answer before a question has been completed. • Often has trouble waiting his/her turn. • Often interrupts or intrudes on others (e.g., butts into conversations or games)
Additional criteria	The following conditions must be met.	• Several inattentive or hyperactive-impulsive symptoms were present before age 12 years. • Several symptoms are present in two or more setting, (e.g., at home, school or work; with friends or relatives; in other activities). • There is clear evidence that the symptoms interfere with, or reduce the quality of, social, school, or work functioning. • The symptoms do not happen only during the course of schizophrenia or another psychotic disorder. The symptoms are not

Criteria	Scoring	Examples
		better explained by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Note. Source: *American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

Contributing to the complexity of ADHD is the burden of comorbidity. One third (33%) of children with ADHD also have at least one comorbid mental disorder, 16% have two, and 18% have three or more (Booster, DuPaul, Eiraldi, & Power, 2012; Larson et al., 2011). The most common comorbid mental disorders include externalizing (outward manifest) disorders, such as oppositional defiant disorder and conduct disorder, and/or internalizing (inward manifest) disorders, such as anxiety and depression (American Psychiatric Association, 2013). For girls with ADHD, comorbid externalizing disorders have been found to produce a greater negative effect on peer relationships and social functioning compared to unaffected girls and boys with ADHD (Elkins, Malone, Keyes, Iacono, & McGue, 2011; Kok, Goren, Fuermaier, & Tucha, 2016). The accompanying comorbid mental disorders may complicate the ADHD experience, increase the focus on disease-based symptoms, and extend the pharmacological approach to treatment. The coexistence of other medical conditions, including atopic diseases such as asthma and/or eczema, can add further complexity in terms of symptomology and management (Yaghmaie, Koudelka, & Simpson, 2013).

The 2011-2012 National Survey of Children's Health (NSCH) reported that 11% of U.S. children aged 4 to 17 years have been diagnosed with ADHD (a et al., 2014). Prevalence rates vary according to race/ethnicity, family socioeconomic levels, and sex. Visser et al. reported higher ADHD rates in non-Hispanic children, those living 200% below the federal poverty level,

and in boys compared to girls (2:1). Past researchers have suggested a wider gender gap based on the sample, with male to female ratios of 3:1 in community samples and increasing to 9:1 in clinical samples (Mikami & Lorenzi, 2011; Staller & Faraone, 2006). Central to the gender discourse/debate in ADHD are the diagnostic criteria (Table 1) used in making the diagnosis as these criteria were developed for classic disruptive ADHD symptoms as they are expressed in boys (Barkley, 2015; Mahone, 2012). In contrast, girls with ADHD typically have more inattentive symptoms and a less disruptive presence (Barkley, 2015; Mahone, 2012). Yet, when girls do exhibit disruptive symptoms they experience more negative repercussions than boys (Elkins et al., 2011; Kok et al., 2016).

Although rates vary across diagnostic criteria and sample characteristics, the prevalence of ADHD in both girls and boys is increasing, by as much as 42% from 2003 to 2011 (Perou et al., 2013; Visser et al., 2014). The escalating numbers of children being diagnosed with ADHD raises the level of burden felt by all affected: children, families, schools, and society (Kendall, Hatton, Beckett, & Leo, 2003; Mueller et al., 2012; Pescosolido, Perry, Martin, McLeod, & Jensen, 2007). Further, such "diagnosis creep" increases the doubt and suspicion around a diagnosis of ADHD (Coon, Quinonez, Moyer, & Schroeder, 2014, p. 6; Walkup, Stossel, & Rendleman, 2014). As a result, ADHD is more likely to be discounted as a legitimate mental disorder compared to other mental and/or medical disorders (Walker et al., 2008). Nonetheless, children with ADHD experience serious psychosocial problems.

The Psychosocial Impact of ADHD

Children with ADHD experience substantial psychosocial impact (Barkley, 2015; Mueller et al., 2012; Strine et al., 2006). Compared to unaffected children, children with ADHD have been shown to be six times more likely to experience emotional and behavioral problems,

and nine times more likely to be impaired across multiple domains (Strine et al., 2006). Notably, younger children with ADHD (4 to 11 years of age) were shown to have more psychosocial problems than adolescents with ADHD, suggesting there may be age-related differences (Strine et al., 2006). A similar age-related finding has been noted in studies of ADHD families (Kendall & Shelton, 2003). One approach to examining the ADHD psychosocial impact is to focus on the important social contexts or domains in child development, including the child's family, peers, and school. Implicit to this examination is the reciprocal interaction that exists between children and their environmental context (Bronfenbrenner & Morris, 2006). Consequently, a discussion of family, peers, and schools as dominant social contexts is presented, followed by a discussion of the child as self, who is influencing and being influenced by each social context or domain.

Family. Children's first social context is family. For children with ADHD, their families often include others similarly affected, as ADHD and its associated comorbidities are highly heritable (Faraone & Mick, 2010; Foley, 2010). Moreover, parents of children with ADHD have higher rates of mental disorders than parent of children without ADHD (Cheung & Theule, 2016). Families of children with ADHD may inadvertently cross personal boundaries and interact more emotionally than unaffected families (Foley, 2010; Pressman et al., 2006). The overall psychosocial impact on family is reported to be worse when the child is male, has comorbid mental disorders, and/or the parent has one or more mental disorders, including ADHD (Theule et al., 2013). In some families, psychosocial burden results from others blaming the parents for causing and/or failing to control their children's behaviors (dosReis, Barksdale, Sherman, Maloney, & Charach, 2010; Hinshaw, 2005; Norvilitis, Scine, & Lee, 2002). Such projected blame, referred to as *courtesy stigma*, can add significant stress to the prevailing functional impairment that characterizes the ADHD family experience (Foley, 2010;

Mueller et al., 2012; Pressman et al., 2006).

Whereas some ADHD families have difficulty maintaining organization and cohesiveness, others function more adeptly (Barkley, 2015; Foley, 2010; Kendall & Shelton, 2003). In a grounded theory study involving 15 ADHD families ($N = 59$), Kendall and Shelton (2003) identified four ADHD family typologies: (a) the chaotic family, marked by high levels of family stress, disorganization, and a lack of external supports; (b) the controlled family (most common), in which family life revolved around the child's ADHD symptoms and problems, leaving parents feeling empty and exhausted, and siblings feeling overlooked; (c) the surviving family, which operated from a family-centric perspective with families being affected but not consumed by the child's ADHD symptoms/problems; and (d) the reinvested family, in which parents reported familial perspective, balance, and control. This latter typology emerged only in ADHD families with adolescents, suggesting that family functioning may exist on a trajectory whereby families of younger children with ADHD may be more vulnerable to impaired family function, compared to families of adolescents with ADHD. Importantly, just under half (46%) of these families were classified as controlled (Kendall & Shelton, 2003). It may be that these families focused on their child's disease-based ADHD symptoms and behaviors simply mirrored the prevailing treatment focus.

In a qualitative study involving children and adolescents with ADHD ($N = 39$), participants recognized behaviors that exacerbated the psychosocial impact on their parents, such as when the child/adolescent was suspended from school or waited until the last minute to complete their homework assignment (Kendall et al., 2003). Similarly, another cohort ($N = 152$) of children/adolescents (9 to 14 years) with ADHD reported that their parents were often bothered and/or embarrassed by their behavior(s) and that they felt they were treated differently

than their siblings because of their ADHD behaviors (Wiener, et al., 2012). These few studies indicated that children/adolescents with ADHD are recognizing the burden and bother their ADHD behaviors impose on their parents, highlighting their risk for self-stigmatization or internalization of negative attributions (Bussing & Mehta, 2013; Corrigan, Larson, & Rusch, 2009). Otherwise, there is a poverty of research exploring how children with ADHD experience family life and relationships through their own eyes.

Peers. The establishment of peers and friendships is a bedrock developmental process, propelling children from family and into an ever-expanding social network (Berk, 2014). At first, children select their peers based on socially preferred (or non-preferred) characteristics (Berk, 2014; Kerig et al., 2012). This selection process has a profound impact on children's psychosocial development, especially as their sense of self shifts from categorical to comparative, and they begin to recognize not only how they are alike or different from their peers but also the consequences of those differences (Berk, 2014). Unfortunately, starting and sustaining positive peer relations can be challenging for children with ADHD.

Children with ADHD are reported to be less well liked and to have more peer problems than unaffected children (Barkley, 2015; Hoza, 2007; Hoza et al., 2005; Kok et al., 2016; Mrug et al., 2012; Murray-Close et al., 2010). Peer problems can be attributed to the child's ADHD behaviors, comorbid mental health disorders, and/or social skill deficits (Hoza, 2007; Kok et al., 2016; Mrug et al., 2012). For example, children with ADHD inattentive presentation may appear inhibited and/or distracted, causing them to miss social cues and opportunities to respond appropriately. In contrast, those with ADHD combined and/or hyperactive-impulsive presentation may lack self-control, appear more disinhibited and/or overbearing, and violate implicit social boundaries or norms (Barkley, 2015; Wehmeier et al., 2010). Further, a child with

ADHD and comorbid depression or anxiety may appear even more socially disengaged and inhibited, while a child ADHD and comorbid oppositional defiant or conduct disorder may be seen as more antagonistic/intrusive, and less bound by social rules (Barkley, 2015; Hoza, 2007; Kok et al., 2016; Mrug et al., 2012). As a result, children with ADHD can display diminished social reciprocity and less positive regard than unaffected peers, thereby appearing to others as more self-centered and controlling (Murray-Close, 2010; Normand et al., 2011).

Although both sexes experience peer problems, girls with ADHD appear to experience more. Girls with ADHD tend to be more inattentive and relationally aggressive (e.g., spreading rumors, gossiping) whereas boys with ADHD tend to be more hyperactive/impulsive and physically aggressive (e.g., fighting, shoving; Barkley, 2015; Mahone, 2012). But, when girls display hyperactivity and/or impulsivity and physical aggression, they evoke more negative peer response than boys with the same behaviors (Diamantopoulou, Henricsson, & Rydell, 2005; Elkins et al., 2011; Kok et al., 2016; Mikami & Lorenzi, 2011). The consequence is that children with ADHD, regardless of sex or comorbidities, appear to be at greater risk for problematic peer relations, which can lead to peer victimization, bullying, and/or peer rejection (Wehmeier et al., 2010).

The Multimodal Treatment Study of Children with ADHD (MTA), the largest cross-national childhood ADHD study to date ($N = 579$), found that 52% of children with ADHD were rejected by their peers at baseline compared to only14% of their non-ADHD classmates (Hoza et al., 2005). Moreover, a subset of participants ($n = 362$) not only remained peer rejected after initiating pharmacological and/or behavioral treatment, but also experienced more negative outcomes (Mrug et al., 2012). Treatment is effective at minimizing ADHD symptoms and behaviors, although it appears less impactful to peer relational challenges (Hoza et al., 2005).

Once an unfavorable reputation is established and a child is rejected by peers, subsequent positive changes made by the child can be ignored by her/his peers, making getting back into the social fold and/or improving peer status difficult (Mrug et al., 2012).

Impaired peer relations in childhood can have long lasting psychosocial impact (Hoza et al., 2005; Mrug et al., 2012). Psychosocial outcomes associated with impaired peer relations and/or peer rejection in children with ADHD includes deviant peer association, delinquency, substance abuse, and increased psychiatric burden (Hoza et al., 2005; Kerig et al., 2012; Mrug et al., 2012). It is clear that early recognition of peer problems and early intervention are critical to reducing the risk of subsequent adverse outcomes. Interestingly, interventions to improve social competence in children with ADHD are often school-based and require the child to leave their classroom to attend a social skills training, sometimes referred to as "friendship" group. This intervention, while well-intentioned, lacks effectiveness support (Storebo et al., 2011) and runs the risk of sending yet another stigmatizing "you are different" signal to children with ADHD.

School. Schools are typically children's first social context outside their home. Children with ADHD are particularly challenged in this new environment and its demands on their behavioral and cognitive capabilities. First, children must be able to sit at a desk for long periods, attend to multi-step instructions, and perform repetitive tasks. Some researchers have asserted, "it would be hard to design a more problematic setting for individuals with ADHD than the typical elementary school classroom" (Dupaul, Gormley, & Laracy, 2014, p. 688). In general, children with ADHD score lower on standardized tests and intelligence quotients (IQ's) compared to unaffected children, and one third of children with ADHD have comorbid learning disorders (Dupaul et al., 2014; Larson et al., 2011). Children with ADHD have lower reading, spelling, and math scores, even after controlling for IQ (Dupaul et al., 2014; Massetti et al.,

2008). Moreover, children with ADHD inattentive presentation experience more learning problems when compared to children with ADHD hyperactive-impulsive and/or combined presentations, and are more likely to be unnoticed because they are not disruptive (Langberg, Dvorsky, & Evans, 2013; Massetti et al., 2008). Children with ADHD are more likely to need classroom intervention and/or special education services, receive detention, suspension and/or expulsion, and to be retained a grade in school (Loe & Feldman, 2007; Massetti et al., 2008). Clearly, children with ADHD require more school support and services than unaffected children.

School interventions typically include behavioral, academic, social, and self-regulation strategies (Barkley, 2015). Ironically, some of the interventions devised to aid these children may make them more susceptible to social/peer scrutiny and being perceived as different (Eisenberg & Schneider, 2007; Ljusberg, 2011). For instance, to minimize distractions, children with ADHD may have their desk faced against the classroom wall or placed outside the classroom door and they may even be removed from the classroom all together to take medication, attend special education classes, and/or to receive remedial, social, or disciplinary instruction (Barkley, 2015; Ljusberg, 2011). Such seemingly helpful interventions exacerbate the ever-present risk of being singled out and treated as different.

One school-based study of children aged 11 to 12 years (N = 120) found that vignettes of children displaying ADHD symptoms and behaviors elicited more negative attributions such as "careless" and "stupid" compared to vignettes of asymptomatic children (Law, Sinclair, & Fraser, 2007). Further, parents and teachers have reported more negative perceptions and expectations of academic abilities in children with ADHD compared to unaffected children, even after controlling for test scores and behaviors, and the perceptions were more negative for girls (Eisenberg & Schneider, 2007). Qualitative evidence reveals that children with ADHD are aware

of being regarded as different and problematic at school, and they express feeling sad, mad, frustrated, and ashamed about their learning, behavioral, and social difficulties (Kendall et al., 2003; Ljusberg, 2011).

Self. An individual's self-system emerges in infancy and crosses the lifespan to serve organizational, motivational, and protective roles (Bronfenbrenner & Morris, 2006; Harter, 1999; Kerig et al., 2012). Shaped by a myriad of reciprocal social interactions and environmental influences, the self-system can be examined within/across its cognitive, affective, social, and behavioral components; comprised of multiple conceptual forms including self- concept, self-perception, self-esteem, self-worth, and self-efficacy (Harter, 1999). The literature on ADHD and the self-system is diverse and divergent depending upon the specific concept of self that was operationalized, the focus of analysis, and whether a global or domain specific assessment was evaluated (Barkley, 2015; Elkins et al., 2011; Houck, Kendall, Miller, Morrell, & Wiebe, 2011; Hoza et al., 2012; Linnea et al., 2012; Swanson et al., 2012). The focus for the current study was on the cognitive self-system, which is how children think about and evaluate themselves in the many contexts of their lives.

From a developmental perspective, the cognitive self-system first emerges in concrete form, transitioning to a more abstract appraisal by 6 to 12 years of age as the child learns to see themselves through the eyes of others (Berk, 2014; Harter, 1999). By adolescence, one's cognitive sense of self is relatively stable (Berk, 2014; Harter, 1999). Negative input during the earlier developmental period is an ongoing threat to how children think about themselves in the present and their subsequent life experience (Berk, 2014; Kerig et al., 2012).

Across multiple studies, there is overwhelming evidence that children with ADHD receive frequent negative feedback. Yet, their cognitive sense of ability across multiple domains

is considered inflated when compared to others and/or standardized measures (Evangelista, Owens, Golden, & Pelham, 2008; Hoza et al., 2004, 2012; Linnea et al., 2012; Swanson et al., 2012; Wiener et al, 2012). This inflated sense of competence is termed a "positive illusory bias" (PIB; Barkley, 2015; Hoza et al., 2012; Linnea et al., 2012; Owens, Goldfine, Evangelista, Hoza, & Kaiser, 2007). On one hand, PIB is thought to be self-protective; children with ADHD inflate their sense of self the most in the domains of their greatest weaknesses (e.g., peers or academics) to reduce the impact of incompetence (Hoza et al., 2004, 2012). On the other hand, PIB is thought to be problematic, impeding social learning and keeping children with ADHD from adjusting their behavior according to feedback (Linnea et al., 2012; Owens et al., 2007).

Two critical lines of thinking emerge from this discussion. First, children's inflated ratings are labeled as positively biased in comparison to adult proxy ratings and/or standardized measures. Could it be that adult proxies have a negative bias and/or that standardized measures are biased? Second, if PIB serves a self-protective role, it is reasonable to think that it could guard children with ADHD from feeling "different" or stigmatized. Researchers have posited, however, that children with ADHD do not identify their diagnosis or label, but rather their ADHD symptoms/behaviors as problematic for others, resulting in them being treated differently (Kendall & Shelton, 2003; Singh et al., 2010; Wiener et al., 2012). Clearly, how children think about themselves and how they experience ADHD is an important variable in determining best practices and outcomes. Indeed, practice must be grounded in not only best evidence and clinician expertise but also on the incorporation of patient/family values, preferences, and needs.

The Current Approach to ADHD Assessment and Treatment

The diagnosis of ADHD is currently made using proxy (e.g., parent, teacher) reports of children's disease-based symptoms, and functional impairment, as well as clinical assessment

and judgment (American Psychiatric Association, 2013). Clinical assessment guidelines encourage the use of standardized checklists and rating scales (Pliszka et al., 2007). One such scale, the Vanderbilt Assessment Scale, includes a checklist of ADHD symptoms (Table 2) as well as symptoms of comorbid disease and academic/behavioral performance. All of the items are negatively biased, in that they all refer to negative behaviors. Proxies observe, rate, and record the child's disease-based symptoms on a four-point Likert-type scale (0 = *never*, 1 = *occasionally*, 2 = *often*, and 3 = *very often*) denoting the symptom frequency and magnitude. The full measure affords a similar rank evaluation of performance.

Table 2

Vanderbilt Assessment Scale – PARENT Informant, ADHD Items

1. Does not pay attention to details or makes careless mistakes with, for example, homework
2. Has difficulty keeping attention to what needs to be done
3. Does not seem to listen when spoken to directly
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)
5. Has difficulty organizing tasks and activities
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)
8. Is easily distracted by noises or other stimuli
9. Is forgetful in daily activities
10. Fidgets with hands or feet or squirms in seat
11. Leaves seat when remaining seated is expected
12. Runs about or climbs too much when remaining seated is expected
13. Has difficult playing or beginning quiet play activities
14. Is "on the go" or often acts as if "driven by a motor"
15. Talks too much
16. Blurts out answers before questions have been completed
17. Has difficulty waiting his or her turn
18. Interrupts or intrudes in on others' conversations and/or activities

Note. Source: NICHQ, American Academy of Pediatrics, McNeil Published: 2002 - See more at: http://www.nichq.org/childrens-health/adhd/resources/vanderbilt-assessment-scales#sthash.NwujGOdH.dpuf

These checklists, while not diagnostic, aid diagnostic formulation, symptom surveillance, and help to gauge treatment response. This approach to assessment drives treatment, which is aimed at reducing symptoms and improving the academic, social, and behavioral performance of children with ADHD, primarily by the use of psychostimulants medication, behavioral therapy, or both (Visser et al., 2015). The identification of disease-based symptoms and the use of proxy ratings to speak for children is the standard of care in the current healthcare system. Still, it is known that directed proxy reports are inherently influenced by the attitudes, beliefs, abilities (e.g., health literacy), and priorities of the proxy, as well as by the instruments used and the population (e.g., age, sex) assessed (Galloway & Newman, 2017; Maoz et al., 2014; McLeod et al., 2004; Porter et al., 2012; Posserud et al., 2014).

In summary, ADHD is a complex and pervasive disorder with far-reaching psychosocial impact. ADHD symptoms emerge during a time that children are in transition from family to larger peer networks; they are becoming engaged in learning, developing peer relations, and establishing a sense of self apart from others. The onset of ADHD increases psychosocial risk factors, including the negative attributions by others that create stigma. The current assessment and treatment lens is predominately disease-based and problem/proxy driven. Considerably less energy has been directed towards the well-being of children with ADHD, and even less effort has been directed at engaging children with ADHD in a meaningful way. To improve early recognition and interventional efforts and to promote children's full mental health, it is imperative that nurses look upstream to early signs of subjective stress and/or distress, as well as identify the areas of innate strengths on which to build. In this study, the researcher sought to integrate the lens of well-being and uphold the patient-centered care approach to the assessment of children with ADHD by including their subjective view.

A Shift to Well-Being

Health is not merely the absence of disease or disease-based symptoms, but rather a state of physical, mental, and social well-being (World Health Organization, n.d.). To expand the conversation of children with ADHD beyond its current disease-based focus, it is vital that attention be given to the overall impact of ADHD on children's lives and well-being. Both the Substance Abuse and Mental Health Service Administration (SAMHSA) and the Report of the Surgeon General's Conference on Children's Mental Health (2000) support the need for an expanded approach to mental health assessment; however, there is no uniform way to assess psychosocial impact and/or well-being. Moreover, well-being and its variants - including quality of life and subjective well-being are often used interchangeably, presenting challenges in assessment.

Quality of life (QOL) is an "umbrella term" combining both objective and subjective indicators of general well-being across numerous domains, such as physical, economic, social, emotional, developmental, and activity (Felce & Perry, 1995). Consequently, QOL is assessed in a multitude of ways. Objective indicators include direct (individual/population) and/or indirect (e.g., environment, economic) human factors. Subjective indicators reflect individual perception of life based on health status, the specific domain(s) measured, and function. QOL studies in children with ADHD typically evaluate treatment effectiveness and/or gauge the impact of disease-based symptoms on function, with a focus on deficits (Danckaerts et al., 2010). Although many researchers have shown that children with ADHD have a lower QOL compared to unaffected children, the findings vary according to the measure used (Danckaerts et al., 2010), the perspective (child versus proxy) taken (Galloway & Newman, 2017), and the presence of comorbid conditions/stressors (Coghill & Hodgkins, 2016; Danckaerts et al., 2010). Further, it is

difficult to compare QOL studies in children with ADHD given the "inter-instrument non-overlap" or the lack of congruence among measures and the myriad of metrics that fall under the umbrella of general pediatric QOL (Danckaerts et al., 2010, p. 84). In studies examining health-related quality of life (HRQOL), the individual's perceived QOL is considered as subjective well-being (Suldo, Riley, & Shaffer, 2006).

Subjective well-being (SWB) is comprised of only subjective indicators, namely affect or emotion (positive and negative) and life satisfaction (Diener, 1984, 2000; Diener, Suh, Lucas, & Smith, 1999). LS is the cognitive evaluation of one's own life based on internal standards (Diener, Lucas, & Oshi, 2002; Gilman & Huebner, 2003). Simply put, LS reflects a personal view on life experience. There is no suitable proxy for a personal view on life experience. LS can be differentiated from transitory affective/emotional states, self-esteem, and self-worth, and is therefore considered a distinct and more stable construct of SWB (Diener, 1984). Individuals reporting a high level of LS are deemed to have a high level of SWB.

Noteworthy is that indicators of disease and indicators of SWB are not opposite ends of the same continuum; they are however different co-occurring constructs (Antaramian, Huebner, Hills, & Valois, 2010; Suldo & Shaffer, 2008; Greenspoon & Saklofske, 2001). Greenspoon and Saklofske (2001) studied this phenomenon in four groups of Canadian children in grades 3 through 6 ($N = 407$) using multiple metrics of both disease-based symptoms and indicators of well-being. Their results revealed four different groups of subjective well-being (SWB) and psychopathology (PTH): (a) Low SWB/Low PTH, (b) Low SWB/High PTH, (c) High SWB/Low PTH, and (d) High SWB/High PTH. Findings included both within and across group differences that would have been lost had SWB or PTH been assessed individually and not collectively. Their innovative study and dual-factor model provided initial support for the use of an integrated

approach to mental health assessment. Suldo and Shaffer (2008) subsequently confirmed the dual-factor model in an ethnically diverse sample of middle school students ($N = 349$), adding categorical labels for additional description and identification of the different groups of SWB and PTH (Table 3).

Table 3

Groups from the Dual-Factor Model of Mental Health

	Level of SWB	
Level of PTH	Low	Average to High
Low	Vulnerable	Complete Mental Health
High	Troubled	Symptomatic/Content

Note. (Suldo & Shaffer, 2008, p. 54)

Low SWB often precedes mental health problems and negative psychosocial outcomes (Lyons, Otis, Huebner, & Hills, 2014; Sun & Shek, 2010). Of concern, then, are those in the vulnerable group who are low in PTH but are also low in SWB. Currently, these individuals would likely fall below the clinical radar, as they would not be identified with the current disease-based approach to screening and assessment.

Extending the dual-factor model one step further, a group of researchers conducted a qualitative inquiry with a subsample of high school students ($n = 30$) from a larger longitudinal study ($N = 500$), to better understand the thoughts, feelings, and perceptions of adolescents from each mental health category within the dual-factor model (Suldo, Frank, Chappel, McMahan, & Bateman, 2014). The researchers found four themes to be consistent with current measures of SWB/QOL, including family, friends, school, and self. Three new themes not found on current measures of SWB/QOL but considered important to the students' sense of well-being included

extracurricular activities, stress, and pets.

These studies support the premise that the absence of disease-based symptoms does not equal well-being. Further, SWB has been found to be a distinct, measureable, and influential construct. For the purpose of this study, LS will be used as an indicator of subjective well-being.

Life Satisfaction

The majority of U.S. pediatric studies assessing LS have used convenience samples of adolescents (Gilman & Huebner, 2003). In a large review of 29 studies focused on LS, only five studies included children under the age of 11 years (Huebner, 2004). In addition, studies of LS typically focused on *global* (domain-free) LS, signifying the prevailing assumption that children could not differentiate the different domains of their life (Adelman, Taylor, & Nelson, 1989). Yet, children eight years of age have been found capable of evaluating their LS across different domains (Huebner, 1994).

LS is not merely a by-product of life, but is shaped by a myriad of intrinsic and extrinsic cognitive and affective influences (Gilman et al., 2008). High levels of LS correlate with an internal locus of control (Ash & Huebner, 2001; Huebner, 1991b), positive relationships with parents (Suldo & Huebner, 2004), teachers (Suldo, Riley, & Shafer, 2006; Suldo, Shaffer, & Riley, 2008), and with peers (Martin & Huebner, 2007). Daily activities such as hobbies and/or extracurricular activities (McCullough, Huebner, & Laughlin, 2000; Suldo et al., 2014) and a school climate where children feel safe and connected (Suldo et al., 2006; Suldo et al., 2008) have been associated with higher levels of LS. Importantly, high LS is linked to fewer psychosocial problems/risks and improved psychosocial outcomes, such as improved academic performance (Suldo & Huebner, 2006; Sun & Shek, 2010).

In contrast, low levels of LS have been found related to an external locus of control (Ash & Huebner, 2001; Huebner, 1991b), family and peer problems (Chappel, Suldo, & Ogg, 2014; Martin & Huebner, 2007; Smithyman, Fireman, & Asher, 2014), academic difficulties (Suldo et al., 2008), and risk-taking behaviors (MacDonald, Piquero, Valois, & Zullig, 2005; Zullig, Valois, Huebner, Oeltmann, & Drane, 2001). More specifically, low LS is associated with greater risk of substance abuse (Desousa, Murphy, Roberts, & Anderson, 2008; Zulling et al., 2001), violent behaviors (MacDonald, et al., 2005), sexual risk-taking behavior (Valois, Zulling, Huebner, Kammermann, & Drane, 2002), and suicide ideation and self-harm behavior (Lyons et al.,,2014; Valois, Zulling, Huebner, & Drane, 2004). These findings highlight the need to attend to indicators of well-being such as LS, and suggest that LS may be useful for assessing psychosocial strengths and areas of risk in children.

Measures of life satisfaction. LS can be assessed in global, general, and/or specific domains along a gradient of "positivity" (Seligman & Cikszentmihalyi, 2000). Global LS scales yield an overall domain-free assessment, while General LS scales combine scores across specific domains for total scores (e.g., family, friends, school; Huebner, 2004). Examples of Global LS measures include: (a) the Student's Life Satisfaction Scale (SLSS; Huebner, 1991a), (b) the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), and (c) the adapted metric, Satisfaction With Life Student Scale – Child (SWLS-C; Gadermann, Schonert-Reichl, & Zumbo, 2010). General LS scales include: (a) the Perceived Life Satisfaction Scale (Adelman, Taylor, & Nelson, 1989) and (b) the Brief Multidimensional Student's Life Satisfaction Scale (BMSLS; Seligson, Huebner, & Valois, 2003). Both Global and General LS scales are often used in large-scale population surveys.

In contrast, multidimensional measures of LS assess the domain-specific contexts

important to children (e.g., family, friends, school, community, and self) and particularly salient to children with ADHD (Barkley, 2015; Huebner, 2004). Further, these measures have potential implications for (a) aiding early recognition of psychological risk and personal strengths, (b) facilitating integrated assessments and attending to indicators of disease and well-being, and (c) developing differentiated approaches to interventions (Huebner, 2001, 2004; Kelly, 2011; Seligman & Czikszentiminhalyi, 2000). Two widely used measures of multidimensional LS include the Extended Satisfaction With Life Scale (ESWLS; Alfonso, Allison, Rader, & Gorman, 1996) and the Multidimensional Student's Life Satisfaction Scale (MSLSS; Huebner, 2004). Of these two, only the MSLSS has been tested and validated with children and adolescents, with normative data available for children in grades 3 through 12 (Huebner, 2001, 2004; Proctor, Linley, & Maltby, 2009). Accordingly, the MSLSS was determined to be the most appropriate measure for the present study.

Review of studies using the MSLSS in children/adolescents. The MSLSS has been tested and validated in large student populations of children and adolescents, predominately in the southeastern U.S. and in non-clinical populations (Huebner, 1994; Gilman, Huebner, & Laughlin, 2000; Suldo & Shaffer, 2008). Earlier studies, however, did include students with special needs, including serious emotional disturbances (SED), mild mental disabilities (MMD), and learning disabilities (LD). Griffin and Huebner (2000) were the first to examine LS in middle-school students with serious emotional disturbance (SED). Their sample consisted of 98 students (grades 6-8) from the southeastern U.S. (84% male; 71% African American) and half (n = 49) were classified with SED. In this study, lower levels of internal consistency were noted for students with SED, especially in the domains of school (.67), living environment (.57), and global LS (.68). Students with SED reported significantly lower LS with friends than their

counterparts. Satisfaction with family predicted the general (total) LS in students with SED, whereas the domains of self, friends, and family influenced their counterparts' total LS scores.

In a different study of LS in students with special needs, Huebner, Brantley, Nagle, and Valois (2002) examined 160 high school students, one group (n = 80) with mild mental disabilities (MMD; IQ 55-70) and one group (n = 80) with normally achieving students. To assess agreement between adolescent and parent-rated LS, at least one parent completed a six-item survey aimed at measuring her/his child's domain specific and general LS. The agreement between students' with MDD ratings and their parents' ratings was low across all domains, while their matched typically achieving counterparts and their parents' yielded strong agreement across ratings. Signifying in part, that students with MMD and their parents view and/or evaluate life differently. Following, McCullough and Huebner (2003) conducted a separate study with 160 high school students (grades 9-12) in three southeastern U.S. public high schools (61% male; 77% AA). Of these students, 80 were learning disabled (LD) and receiving special education and 80 were normal achieving. Findings from this study yielded alpha coefficients exceeding .70 in both samples, providing provisional support for the use of the MSLSS in LD populations. The findings of these studies suggested that adolescents with SED and MMD may report LS differently from their normal achieving peers and their parents and that in some populations (e.g., SED) caution is required when interpreting MSLSS results (Griffin & Huebner, 2000).

Although only a few studies have used the MSLSS in populations of children and/or adolescents with identified cognitive/emotional difficulties, other studies have used the MSLSS to examine psychosocial risks and health related concerns. For example, three sets of investigators have used the MSLSS measure with public high school students as part of South Carolina's Youth Risk Behavior Survey (YRBS; MacDonald, Piquero, Valois, & Zulling, 2005;

Valois et al., 2002; Zullig et al., 2001). All domain scores were pooled and expressed as mean LS scores. In these studies, low levels of LS were associated with high-risk behaviors. Specifically, Zullig et al. (2001) reported an association between lower LS and substance use behaviors (e.g., cigarette smoking, drinking alcohol, and illicit drug use), while Valois et al. (2002) found an association between lower LS and early/promiscuous sexual activity with sexual risk-taking behaviors. In contrast, MacDonald et al. (2005) found students with higher levels of LS had lower acts of violence. With respect to younger children, the MSLSS was found valid for identifying potential areas of psychosocial risk in 3rd and 4th grade students (Kelly, 2011).

A more recent survey of Canadian youth and risky behaviors was conducted (N = 8,225; grades 7-12) as part of the British Columbia Youth Survey on Smoking and Health 2 (BCYSOSHII; Sawatzky, Ratner, Johnson, Kipec, & Zumbo, 2010). Most students (82.3%) reported satisfaction with their global QOL. The MSLSS domains of self and family, and their self-reported health status accounted for 76.1% of the variance in global QOL. These cross-sectional surveys suggest that assessing LS in the pediatric population may be relevant to recognizing psychosocial and health related risks.

Martin and Huebner (2007) examined 571 ethnically diverse middle school students (grades 6-8; 60% girls) to assess the relationship between general LS, peer victimization, prosocial experience, and emotional well-being. In this study, the investigators administered the full MSLSS 40-item questionnaire in addition to other measures. In analysis, both overt victimization (physical/verbal assault) and relational victimization (rumors/exclusion) were associated with reduced LS, while prosocial experiences (positive peer interactions) were associated with greater LS. There were gender (F[1,569] = 9.88, p < .01) and race (F[1,497] = 9.08, p < .01) differences, with females reporting higher LS than males, and African Americans

reporting higher LS than Caucasians. In a one-year follow-up study of a smaller cohort (T2; n = 417) from the original sample population (T1; N = 517), researchers found that low LS at T1 added to the prediction of T2 relational victimization and prosocial experiences, suggesting low LS is a precursor to negative social experience (Martin, Huebner, & Valois, 2008). Thus, it appears that low LS may put adolescents at risk for current and future negative peer experiences.

Cross-cultural studies of LS in children/adolescents have used English as well as translated versions of the MSLSS (Gilman et al., 2008; Park, 2005; Park, Huebner, Laughlin, Valois, & Gilman, 2004; Sawatzky, Ratner, Johnson, Kopec, & Zumbo, 2010; Yao et al., 2014). In one study designed to investigate the MSLSS factor structure cross culturally, Park et al. (2004) compared 835 Korean students (grades 4-11) and 822 U.S. students matched in grade and age. The authors reported strong alpha coefficients (> .70) in all Korean MSLSS domains except for self, which was slightly lower (.67) in elementary students. In a later analysis with 716 Korean students in grades 4-11, Park (2005) evaluated domain-specific LS with the MSLSS, and global LS using the *Student's life Satisfaction Scale* (*SLSS*; Huebner, 1994). Examining developmental differences in LS, the investigator found both domain-specific and global LS scores decreased with age. Gender effects were found only in middle school students, with girls reporting higher levels of domain-specific LS except in the friend domain, where boys had the higher scores. Interestingly, in the domain of self, LS scores increased with age, a finding atypical in most collectivist cultures (Park, 2005).

More recently, Yao et al. (2014) assessed LS, coping, and self-esteem in relation to suicide ideation in 5249 Chinese students (grades 7-12). Their findings indicated higher levels of suicide ideation were associated with low LS ratings in the family, school, and living environment domains.

Finally, Gilman et al. (2008) surveyed LS in students (N = 1338; grades 7-12) from four countries, including the United States (n = 308), Ireland (n = 224), China (n = 369), and South Korea (n = 437). Each sample used a native-language translated version of the MSLSS. Measures of internal consistency were greater than .70, except for self (.69) and living environment (.67) in the Chinese sample. General LS was similar for U.S., Irish, and Chinese adolescents, and significantly higher than for South Korean adolescents. Girls from the U.S. and Irish samples reported higher general LS compared to their male counterparts. The largest domain-specific differences were found for self and friendship domains, with U.S. and Irish adolescents reporting LS levels exceeding that of their Chinese and South Korean counterparts. Across all samples, Chinese adolescents reported the highest level of LS in the domain of family.

In sum, the MSLSS is widely used to assess LS in children and adolescents, including those with disabilities and from diverse cultures. By far, the majority of studies using the MSLSS have been conducted in adolescent student populations and most exclusively in the context of research rather than clinical application. Given that 20% of U.S. children have a mental disorder and 11% of U.S. children have been given a diagnosis of ADHD (Visser et al., 2014), it is highly likely that these research samples included children with mental disorders, including ADHD.

Life Satisfaction and ADHD

The first study to examine LS and ADHD symptoms was conducted by Gudjonnsson, Sigurdsson, Exjolfsdottir, Smari, and Young (2009) with a sample of Icelandic university students (N = 369; 70% female). In their study, the investigators measured global (domain-free) LS using the *Satisfaction With Life Scale* (SWLS; Diener et al., 1985), a 5-item domain-free metric where respondents rated their LS on a 7-point scale, from very satisfied to very dissatisfied. In addition, these students rated their symptoms of ADHD, emotional control,

antisocial behavior, and social functioning using the RATE-S (Young & Ross, 2007) and rated their ADHD subtype symptoms using the DSM-IV Checklist of Symptoms (American Psychiatric Association, 1994). Students also rated their level of anxiety, stress, depression, and social functioning using the Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995). The findings from this study suggested that ADHD symptoms reduced students global LS. Separate analysis of female/male LS and predictor variables (RATE/DASS subscales) revealed significant ($p < .001$) gender differences (females $F[7, 251] = 13.44$ and males $F[7,99] = 5.33$), with poor emotional control predicting lower LS in females and poor social functioning predicting lower LS in males. These findings suggest a correlation between global LS, ADHD symptoms, and comorbid conditions, although global measures of LS are nonspecific.

In a different study, Bateman (2010) sought to determine if ADHD symptoms predicted global (domain-free) LS as well as to identify potential moderators (e.g., inter-parental conflict, reading/math academic achievement, and depressive symptoms). Data were collected from two different U.S. middle school students ($N = 183$; grades 6-8). Participants completed the Student's Life Satisfaction Scale (SLSS; Huebner, 1991). Additional variables included reading and math scores and teacher reports of ADHD symptoms. In the findings LS was negatively correlated with inter-parental conflict ($r = -.54$, $p < .01$) and depressive symptoms ($r = -.60$, $p < .01$). LS did not correlate with ADHD inattentive ($r = -.38$, $p < .01$) or hyperactive-impulsive symptoms ($r = -.27$, $p < .01$). In contrast, LS was weakly positively correlated with academic achievement in mathematics ($r = .27$, $p < .01$) and reading ($r = .22$, $p < .01$). ADHD symptoms accounted for 2.5% of the global LS variance. Although the investigator suggested ADHD inattentive symptoms might be a stronger predictor of LS than hyperactive-impulsive symptoms, based on the dominance of contribution to variance (2.4%). Although, ADHD symptoms shift across

development, with hyperactive-impulsive symptoms diminishing toward early adolescence and inattentive symptoms continuing (Barkley, 2015). Given the adolescent population, this finding would be expected. The researcher did not identify a significant moderator of LS.

More recently, two sets of researchers have examined global (domain-free) LS in children with ADHD (Allah-Gholilo, Abolghasemi, Dehghan, & Imani, 2015; Nadeau et al., 2015). Though, Nadeau and colleagues were the first to study LS in a clinical sample ($N = 111$) of children and adolescents (aged 8-17 years) diagnosed with ADHD and comorbid anxiety and/or depression. Participants completed the Student's Life Satisfaction Scale (SLSS; Huebner, 1991), the Vanderbilt ADHD Diagnostic Rating Scale (VADRS; Wolraich et al., 2003), and the Revised Child's Anxiety and Depression Scale (RCADS; Chorpita et al., 2000). Parents completed a demographic form and the Vanderbilt ADHD Diagnostic Rating Scale – Parent Informant (VADRS; Wolraich et al. 2003). Two findings are particularly relevant to the proposed study. First, *child-rated* symptoms of ADHD, depression, and anxiety were all negatively correlated with their LS; however, *parent-rated* ADHD symptoms in the child did not correlate with LS. These findings thereby underscore the value of assessing the child's subjective view of how ADHD symptoms affect their life. Second, Nadeau and colleagues probed the many dimensions of ADHD symptoms using the VADRS, but measured only global LS with the SLSS so, which specific life domains are particularly relevant to LS in children with ADHD is still unknown.

Lastly, in a nonclinical sample of adolescent Iranian students ($N = 94$; $n = 47$ with ADHD symptoms, $n = 47$ without ADHD symptoms; ages 13-15 years) researchers examined the relationship between global LS, using the Satisfaction With Life Scale (SWLS; Diener et al., 1985) and two personal characteristics, alexithymia (difficulty identifying and expressing

emotions) and sense of coherence (perceived internal organization; Allah-Gholilo et al., 2015). The findings suggested that both personal characteristics were associated with global LS. Explicitly, alexithymia was associated with lower LS ($r = 0.45$) and sense of coherence was associated with higher LS ($r = 0.33$). There were no identified group differences between students with ADHD symptoms and unaffected students. Although this highlighted the influence of personal characteristics on LS, how these findings may relate to children with a diagnosis of ADHD and identified comorbidity remains unknown.

In summary, only one study examined LS in relation to ADHD in a clinical sample, and no study examined domain-specific multidimensional LS. The few findings do, however, open the discussion to how children with ADHD experience LS and the importance of their unique subjective view. How children with ADHD experience LS across the different life domains that are impacted by this disorder namely, family, friends, school, community, and self remains an unanswered question.

Summary

Studies of children's subjective ADHD life experience are limited, despite findings that children with ADHD are aware they have difficulties and that they experience negative attributions or stigma even in context of their positive illusory bias (Kendall & Shelton, 2003; Singh et al., 2010; Wiener et al., 2012). The reviewed literature is encouraging and suggests that a multidimensional assessment within and across domains of LS in children with ADHD may help to identify areas of psychosocial risk and strength, moving children's mental health assessment from a primary disease-based, proxy-driven approach, towards a more integrated, strength-based, and patient-centered approach. Thereby, clinicians and researchers may better engage children's voices, identify tailored interventions, and work (together) towards prevention.

Children in Research

Involving children in research necessitates attention to the historical discourse of children and childhood and the events that have given rise to the legal and ethical precepts supporting children's rights. In the past, children and childhood have been viewed in diverse and dichotomous ways. For example, children have been regarded as essentially evil or angelic, little adults or transitional beings, blank slates or independent social actors (Kellett, Robinson, & Burr, 2004; Uprichard, 2008). Childhood has been considered as a period of homogeneity or one of great diversity, depending upon social class, gender, ethnicity, or other such distinctions (Berman, 2003; Kirk, 2007; James & Prout, 2015). These views shape how adults see, understand, and interact with children today.

In the context of research, the view of children and childhood influences the researcher's expectations of children as research participants. Conceptualizing children as innocent and vulnerable beings engenders a sense of paternalism that can yield children essentially invisible, silent, and disempowered, resulting in adult-centric research (Berman, 2003; Clark, 2011; Driessnack, 2005). Further, when childhood is conceptualized as a period of transition from a state of incompleteness to completeness in adulthood, children are viewed as human *becomings* rather than human *beings* (Qvortrup, as cited in Berman, 2003). Consequently, children are seen in terms of *who they will be* rather than *whom they are*, rendering the value of their view and present circumstance unimportant (Uprichard, 2008). From this position, children are left dependent upon adults for agency via proxy voice (Clark, 2011). Alternately, when children are considered capable and competent social actors in their own right, they are more likely to be seen as active and empowered beings uniquely situated in the world (Berman, 2003). From this vantage point, childhood is then understood as a distinct epoch where the child's own voice is

the best source of subjective experience (Clark, 2011). Subsequently, children move from a position of unknowing objects to engaged beings and active participants. Thus, there are two prominent but disparate views of children and childhood that shape current expectations of children in research.

The problem with this dichotomous discourse is that each view largely ignores temporality and the interdependence between the biological, psychological, and social domains (Berman, 2003; Bronfenbrenner & Morris, 2006). Further, there is evidence to suggest that children are aware of their own "being and becoming" in relation to self, others, and the temporal world such that embracing a dual discourse better reflects reality and supports children on several fronts (Uprichard, 2008). First, a dual discourse acknowledges that while children do become adults in the future, the kind of adult they will become is largely influenced by their childhood today, underscoring the importance of the child's own perspective and experience. Second, "being and becoming" places the child's voice on the continuum of capability in the lived human experience, thus importing self-agency across the lifespan. Third, when seeking to understand the perception of self in relation to socially constructed ideas like ADHD and LS all experience matters as the uniqueness of self emerges through relational and societal context (Berman, 2003).

Ethical and legal precepts. All ethical and legal precepts involving children in research exist within the historical shadows of medical experimentation. Scientific accounts of the late 19th and early 20th centuries describe specific cruelties committed toward children. Institutionalized children, often those with physical and mental disabilities were "volunteered" to test vaccines, inoculated with infectious agents, and exposed to radiation or invasive surgical

procedures all in the name of science (Glantz, 1996). From this dark past, legislative efforts aimed at the protection of all human subjects emerged.

The first legal article addressing human rights and voluntary consent for research participation was the Nuremberg Code (1947). This foundational document, designed to protect and inform research participants, excluded children, as children were thought to lack the capacity to provide consent (Diekema, 2006). Consequently, research with children continued unguided for two more decades. In 1964, the Declaration of Helsinki formally acknowledged children's participation in research, and introduced the practice of obtaining informed consent as obtaining permission from the legal guardian and assent from the child (Ashcroft, 2008; Diekema, 2006).

In 1974, the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was established, amid public outcry of questionable research practices (Diekema, 2006; Glantz, 1996). In 1979, the National Commission published The Belmont Report, emphasizing three main ethical principles: (a) respect for persons, (b) beneficence, and (c) justice (Beauchamp, 2008). Held in the principle of respect for persons was the ideal of autonomy or self-determination for everyone - including children (Carroll & Gutmann, 2010). Subsequently, the Commission issued specific restrictions and regulatory guidelines, defined in the U.S. Code of Federal Regulations (45 CFR 46), Subpart D that pertain to research involving children (U.S. Department of Health and Human Services, 2009). Though children cannot legally give informed consent, the spirit of informed consent is upheld through the acknowledgement of the child as being able to assent or dissent.

According to rule, children must give voluntary assent and the parent or legal guardian must grant voluntary permission for research participation (U.S. Department of Health and Human Services, 2009). The process of obtaining child assent and parental permission follows a

similar process of informed consent, that is child and parent/guardian must be informed of the study purpose, procedures, risks, and benefits (Diekema, 2006). Children are generally considered able to provide *assent* by age seven (Wendler, 2008). Some have argued that children should be allowed to provide assent when they can express understanding of the research question, regardless of age (Wendler, 2008). The Commission (1974) acknowledged children as research participants, but did not independently address children's rights until later.

Children's rights. The first international agreement to articulate children's human rights was the United Nations Convention on the Rights of the Child (UNCRC). To date, every country but the United States has ratified the treaty, although the U.S. did sign the treaty in 1995 (United Nations Treaty Collection, n.d.). The treaty recognizes children as valuable persons within society and owners of their own human rights (Clark, 2011). Comprised of over 50 articles, there are three that are particularly relevant to children in research. First, Article 3 directs the best interest of the child to be the primary concern of adults making decisions affecting children. Second, Article 12 addresses children's right to express their own opinions and views about matters that affect them. Third, Article 13 acknowledges children's rights to receive and share information in different ways (e.g., talking, writing, drawing). Further, the UNCRC formalized the rights of children and opened the gates to further discussion of children's issues; engaging children in research was made a global agenda item.

A call to engage children in research was echoed by the National Institutes of Health (NIH) and the Food and Drug Administration (FDA) in the 1990s. This call came after the UNCRC's support of children in research and the recognition that in many instances there is no fitting proxy for children (Fleischman & Collogan, 2008; Tishler & Reiss, 2011). Although research studies with children have increased in the U.S., the numbers remain small compared to

adult studies and the focus remains on increasing the numbers of children who participate in contrast to increasing meaningful participation (Tishler & Reiss, 2011). Similarly, in 2000, the U.S. Surgeon General advocated for children's engagement in mental health treatment as a national priority in the context of a health system that includes "a balanced research agenda" (Report of the Surgeon General's Conference on Children's Mental Health: A National Agenda, 2000, p.2). Although this report affirmed the value of the perspective of children, it relied exclusively on adult voices.

Not until 2002, when the United Nations held the first General Assembly Special Session on Children to discuss children's issues exclusively, did a large assembly of children convene to talk about something only they knew—what it is like to be a child in the 21st century. Echoing from this gathering was the collective voice of children who understood, "We are the children whose voices are not being heard; it is time we are taken into account" (Bellamy, 2002, p. 3). This action raised the standard, from seeing children simply as research participants to seeing children as meaningful contributors to research. In short, the General Assembly highlighted the power and potential of children, lending support to the research paradigm of child-centered inquiry.

Child-centered Inquiry

Child-centered inquiry emerged in the 1980s and 1990s amidst a changing world and across different continents and disciplines. The movement transformed the focal point of inquiry, from the identification and isolation of developmental processes in children to the subjective life experiences of children in social contexts such as family, school, and community (Clark, 2011). Integral to child-centered inquiry is the value of the authentic voice and emic view of the subculture of childhood.

Child-centered inquiry supports children as experts in their own lives and childhood as a unique subculture outside the immediate purview of adults. This view urges researchers and clinicians to move away from the typical adult-centered approach to inquiry, which relies heavily on language-based methods to methods that align with children's natural interests and abilities (Clark, 2011). There is no single child-centered approach; studies with children often involve multi-modal methods of observation, interview, and art-based strategies (Coad, 2007; Greig, Taylor, & MacKay, 2013).

In a systematic review of health-related art-based research with children ($N = 116$) aged 7 to 12 years, drawing was the most common art-based technique used (Driessnack & Furukawa, 2011). The use of drawing in research with children is not new (Goodenough, 1926, 1928; Harris, 1963; Koppitz, 1968, 1984), but the shift in focus from adult- to child-interpretation of the drawing is more recent (Malchiodi, 1998; Driessnack & Furukawa, 2011). Further, although drawings are used for assessment and/or therapeutic intervention in children with medical and mental health conditions, the focus is often on identifying or coping with a negative emotion and/or disease-based experience (Archibald et al., 2014; Dolidze, Smith, & Tchanturia, 2013; Tielsch & Allen, 2005). In contrast, the present study sought to use drawing in children with ADHD to examine the positive construct of life satisfaction by applying the Draw-And-Tell-Conversation (DTC) approach (Driessnack, 2006)

Draw-and-Tell-Conversation (DTC). DTC is an art-based approach that prompts children to first draw and then tell about their experience (Driessnack, 2006). The use of drawing can be a powerful tool to facilitate communication when interviewing children (Angell, Alexander, & Hunt, 2014; Archibald et al., 2014; Driessnack, 2005, 2006; Tielsch & Allen, 2005; Wesson & Salmon, 2001). The simple act of drawing before telling has been found to help

children talk about emotionally laden events and/or constructs they may otherwise find difficult to explain and/or discuss (Driessnack, 2005, 2006; Wesson & Salmon, 2001). Drawing is a familiar task to most children and one that aligns with the natural way children encode and retrieve information, which is sensory rather than semantic or word-based (Salmon, 2001). Hence, the DTC approach capitalizes on children's individual cognitive and developmental strengths, while facilitating insight, communication, and understanding in a way that may not supported by the typical language-based approach to inquiry (Archibald et al., 2014; Coad, 2007; Driessnack, 2005, 2006).

The facilitative effect of engaging children in the task of drawing before engaging them in dialogue is evident in two child-centered studies using DTC for data collection. In the first study, the researcher examined fear experiences in 22 children, aged 7 and 8 years old (Driessnack, 2006). In the second study, two investigators probed the understanding of basic genetic concepts in 27 children, aged 7 to 10 years (Driessnack & Gallo, 2013). In each study, children were given a drawing prompt and then asked to tell about their drawings when completed. The drawings were unique to each individual child and situation, and the children's verbal interpretation produced collective themes across all children, giving insight into their emotional and cognitive worlds. For example, children in the first study described their drawings and fear experience more by what was missing or what did not happen, rather than what was present or occurring. In the second study, children revealed their level of understanding, and in some instances misunderstanding, about their bodies and basic genetic concepts (e.g., DNA), giving a glimpse into how they make sense of health-related information. In each study, there is a window of opportunity to understand and to intervene at the level best suited for the individual child. Thus, child-centered inquiry aligns with patient centered-care.

Patient-centered care emerged in the U.S. during the late 20th century, around the same time as child-centered inquiry (Pediatrics, 2012). Aimed at improving health outcomes, patient-centered care has been defined as "care that is respectful of and responsive to individual patient preference, needs, and values" (Institute of Medicine, 2001, p. 6). In pediatrics, patient-centered care is discussed in terms of family-centered care, as the family is the child's primary context supporting health and well-being. There is evidence that care tailored to the needs of the individual child/family can improve health outcomes and well-being (Kuhlthau et al., 2011). Even in family-centered care, however, adults can and do mute the voices of children. Clinicians and researchers may be more effective in improving health-related outcomes and well-being in children by merging patient- and family-centeredness with child-centered approaches to inquiry.

Theoretical Framework

The researcher selected Bronfenbrenner's bioecological model of human development (Bronfenbrenner & Morris, 2006) as the theoretical framework to explore life satisfaction in children with ADHD (Figure 1). This model holds all pertinent elements to this inquiry, more specifically: (a) the developing child with ADHD; (b) the contextual environments where children live and interact; (c) the various people that influence children such as family, friends, and teachers; (d) the shifting systemic forces across time that yield indirect influence in the lives of children with ADHD; and (e) the reciprocal interactions between the child and their environment(s).

Introduced in the 1970s, researchers have continually refined and expanded this model through ongoing research, conceding human development as a process of both continuity and change (Bronfenbrenner & Morris, 2006). By far, the single most important transformation across time is the shift from a focus on *environment* to a focus on the *processes* between the

child and their environment (Tudge, Mokrova, Hatfield, & Karnik, 2009). Bronfenbrenner's bioecological model of human development is operationalized through the Process-Person-Context-Time (PPCT) model, where the effect of processes, referred to as *proximal processes*, is understood as being influenced by the characteristics of the person, context, and time (Bronfenbrenner & Morris, 2006).

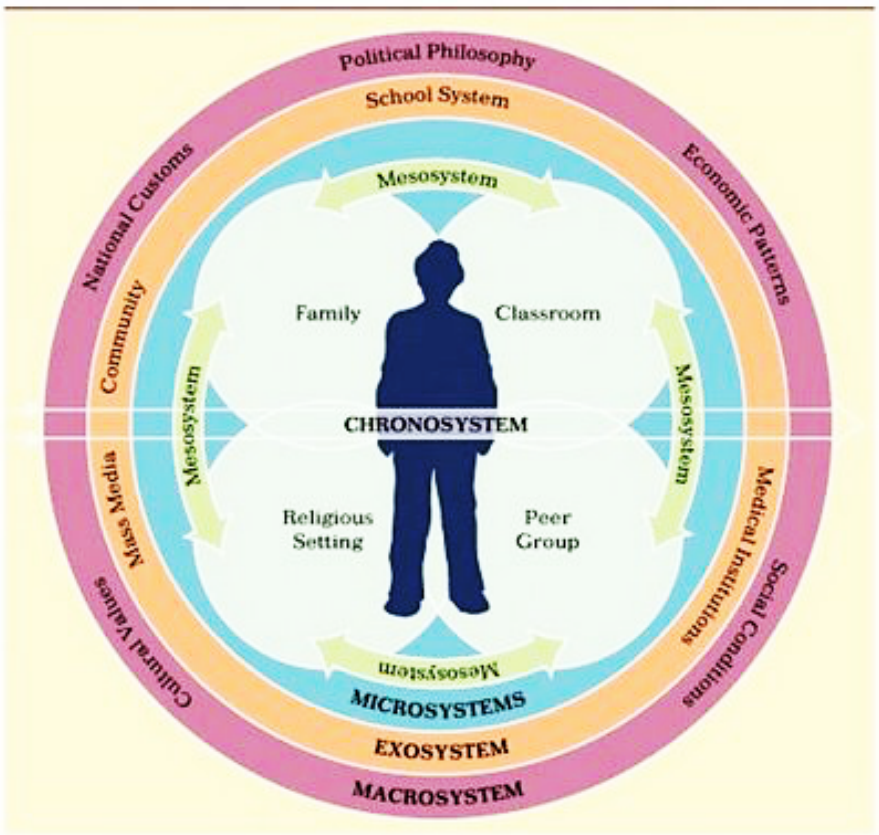


Figure 1. Bronfenbrenner's bioecological model of human development.

Proximal processes. Regarded as the "the engines that drive development" (p.795), proximal processes are reciprocal interactions that endure and grow increasingly complex over time, as the child engages in dynamic social interactions with others and her/his changing

environments (Bronfenbrenner & Morris, 2006). Relevant to understanding mental disorders in children, including ADHD, is the idea of the person-environment interaction, where the identification of genetic susceptibility, personal, and environmental factors are equally important to understand the individual and improving clinical outcomes (Barkley, 2015).

Person. Various personal characteristics affect proximal processes, including: (a) the behavioral disposition or temperament of the child; (b) their capacity to attend to others and their environment, with minimal distraction and/or disruption; and (c) innate personality characteristics, or ways of being in the world that invite or discourage particular feedback. To some degree, personal demographics influence proximal processes as they place individuals in a niche, defining their position in society, such as a child with ADHD. It is easy to envision how symptoms of ADHD (inattention, hyperactivity, impulsivity) and related internalizing and/or externalizing behaviors (comorbid conditions) might influence the characteristics of person, and subsequently the proximal processes. Further, personal characteristics of temperament, personality, and perceived locus of control influence children's LS. Proximal processes are important to well-being.

Context. The environmental context is perhaps the most recognizable element of Bronfenbrenner's model in the literature. Depicted as a set of nested structures, (Figure 1) the microsystem, mesosystem, exosystem, macrosystem, and chronosystem give spatial, relational, and chronological context to the world in which children live and interact. The microsystem is the innermost sphere of influence where face-to-face interactions with persons, objects, and symbols occur. In children, the microsystem typically includes home, peers, and school. As the review of literature reveals, children with ADHD experience impact in all three of these domains. The mesosystem contains two or more microsystems (e.g., home and school), while the

exosystem links two systems, one of which does not contain the developing person (e.g., parent's work environment and child's school). The macrosystem is the outermost sphere of influence, comprised of larger forces such as the economy, culture, politics, and/or world events. Lastly, the chronosystem adds the dimension of time.

Time. Growth and development occurs across time, both historical time/period and time in life (Bronfenbrenner & Morris, 2006). To Bronfenbrenner, time could be conceptualized within the nested environments (e.g., microtime, mesotime), thereby addressing the stability or instability of process, person, and context across/in time. Changes across and in time can influence the child's development and life experience. For example, children manifesting symptoms of ADHD impulsivity in the early 1900s were thought to suffer a defective moral character, as opposed to the present day view of ADHD as a neurodevelopmental disorder (American Psychiatric Association, 2013; Barkley, 2015). The social discourse across time, as well as in the present, contributes significantly to the present-day experience of children with ADHD. In short, the Bioecological Model of Human Development (Bronfenbrenner & Morris, 2006) is a fitting theoretical frame to explore how children with ADHD experience LS within and across the various life domains. In particular, the PPCT model offers a frame for inquiry and analysis, taking into consideration the multidimensionality and interactions of the child, context, and time.

Chapter Summary

ADHD is a complex and pervasive (neurodevelopmental) mental disorder, with weighty psychosocial impact. Children with ADHD are positioned near a "perfect storm" of developmental events. They are experiencing the onset of a disruptive disorder while expanding their social networks and developing their emerging sense of self, all while facing increased

behavioral, cognitive, and social performance demands, making them highly susceptible to psychosocial risks and adverse outcomes. Complicating matters for these children is the burden of comorbid disorders, the undercurrent of stigma, the disease-based lens through which they are viewed, and the heavy reliance on adult proxy-voice through which they are understood. In contrast, this study seeks to engage children with ADHD through child-centered inquiry focused on a lens of well-being.

CHAPTER 3: RESEARCH DESIGN AND METHODS

In this study, the researcher examined how children (aged 7-11 years) with ADHD evaluate their life satisfaction using a parallel convergent mixed-methods design (Creswell, 2015). Using this approach, two parallel data sets were obtained from each child participant. First, children were interviewed using a qualitative (QL) art-based approach, and then they were asked to complete a quantitative (QN) standardized self-report measure and single item household literacy query. In addition to the child data sets, the researcher obtained a parent-informant data set to provide contextual variables, including child/family demographics; a parent report of their child's ADHD symptoms, treatment, and comorbidities; and a measure of health literacy.

The rationale for using a mixed-methods design was both complementary and confirmatory (Small, 2011). The act of engaging children through qualitative art-based inquiry is complementary to the child's natural way of encoding and communicating, resulting in insight and information that extends beyond data obtained from children through standard language-based, self-report tools (Coad, 2007; Driessnack, 2006). The use of different techniques and varied types of data facilitated comparison and corroboration (triangulation) across the data sets that served confirmatory functions; thus extending the contextual and theoretical understanding of children with ADHD, while concurrently aiding methodological rigor (Maxwell, 2013; Small, 2011).

This study was conducted from a primary interpretive position, whereby the researcher assumed: a) that children experience life based on their own perceived view, situation, and social position, separate and apart from the perspective of others, including adult proxies and peers, and b) children engage in dynamic and reciprocal interactions with diverse people, places, and times

that help to shape their worldview and life experience (Blumer, 1986; Bronfenbrenner & Morris, 2006; James & Prout, 2015). This philosophical position is evidenced in the interactive nature of this study and the privilege given to the children's' subjective view.

In this chapter, the researcher describes and depicts the overall research design and methodology, beginning with a visual representation of data collection and analysis (Figure 2). Following, the participants and setting are highlighted. Then, all processes and procedures for data collection and data analysis are summarized. The chapter concludes with the description of measures taken to ensure data integrity, methodological rigor, protection of human rights, and adherence to professional ethics.

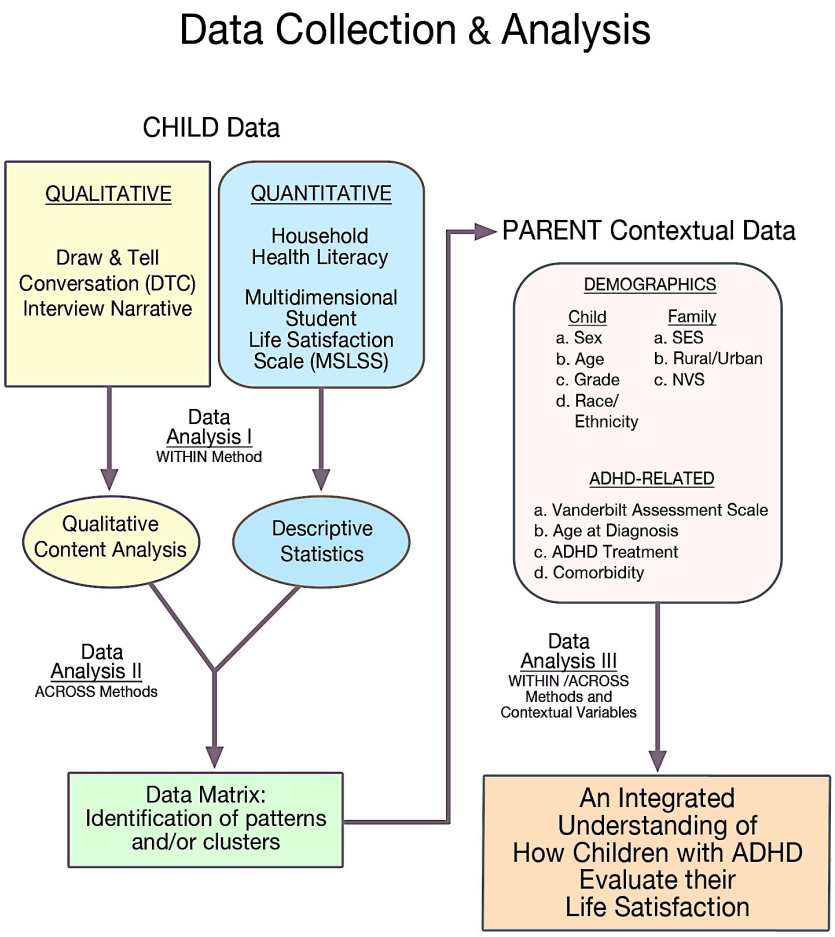


Figure 2. Visual representation of data collection and analysis.

Participants and Setting

Recruitment. The researcher recruited participants from clinics identified on the Oregon Health Authority (OHA) website. The OHA oversees Oregon's medical and mental health services, which include a network of clinics, comprising family practice, mental health, and pediatrics. Although the OHA clinics serve a majority of Oregon Medicaid recipients living 133% below the federal poverty level, the sites are accessible to those with private insurance. Both urban and rural participants were sought. Access to children's mental health services in rural communities is less when compared to urban communities (Cummings et al., 2013). Hence, many children's mental health needs are met in primary care settings. Per the Oregon Office of Rural Health (ORH), rural is defined as a geographic location 10 miles or more from a city of 40,000 or more, though some rural counties are designated "frontier," denoting that they have a population density of six or fewer people per square mile; urban areas are defined as a densely settled area with a census of 50,000 or more.

After identifying potential clinics, the researcher made telephone contact to find a key informant and/or clinician working within the clinic, willing to meet face-to-face. Through this step, the researcher established a personal contact at each site in order to exchange information, ask/answer questions, and monitor recruitment progress. Recruitment fliers (Appendix A) were placed in five clinics in rural/frontier eastern Oregon and two clinics in urban northwest Oregon. Recruitment was facilitated by the support and assistance of several key individual clinicians (NP's/MD's) and their support staff. As these individuals have an established provider/client relationship with ADHD families, they were the first to introduce the study opportunity and seek permission to share the parent/child name and phone number with the researcher. Thus, the initial contact between researcher and participant (parent) was via the study protocol telephone

script (Appendix B). Parents who affirmed their interest in participation, and their child's interest and eligibility were scheduled for a meeting at a mutually agreed upon place. Of important note, all but one participant was recruited with clinician assistance.

Inclusion criteria. The researcher recruited children aged 7 to 11 years of age with a diagnosis of ADHD and one willing parent using purposive sampling, though variation in child age, sex, and geographic location (rural/urban) was desired to elicit differences in perspective (Patton, 2002). This age group was targeted for several reasons, including that (a) they are in active social transition from their family and into the realm of peers, school, and others; (b) they are beginning to establish a sense of self apart from others; (c) they are capable of understanding how others view them; and, equally relevant, (d) the onset of ADHD during this age can alter their developmental trajectory and life experience, making them more vulnerable to psychological problems in adolescence (Berk, 2014; Kerig et al., 2012). Lastly, apart from the general geographic/demographic differences, rural and urban dwellers experience differences in lifestyle and access to healthcare and community services that influence children's life experience.

Exclusion criteria. Children with a diagnosis of schizophrenia, bipolar disorder, autism spectrum disorder, marked intellectual impairment (IQ < 70) and non-English speaking children (and parents) were excluded due to concerns these conditions would limit participation in data collection activities.

Sample. The target sample size was 15 to 30 children, which is consistent with the sample size that was needed to obtain data saturation and statistical relevance in similar published child-centered mixed-methods studies (Driessnack, 2006; Driessnack & Gallo, 2013). Twenty-four participants were screened via telephone contact with a parent and all were deemed

eligible for participation. Of the 24 eligible participants 20 completed the interview. Four eligible participants were unable to keep their scheduled appointments for unspecified reasons.

Data Collection Process and Procedure

Prior to data collection, the researcher obtained approval through the Oregon Health & Science University (OHSU) Institutional Review Board (IRB; Appendix C), as well as both parental consent (Appendix D) and child assent (Appendix E). The researcher collected all data between August and December of 2016, in a single semi-structured interview with each child individually while parents completed contextual data sheets independently. The interviews were held at mutually agreed-upon locations (e.g., community center, public library, private home, or office). Prior to starting the interview, each child was given the option—if the setting allowed—of having her/his parent in or out of the room while they completed their separate data sheets. Six children opted to have their parent stay in the room, while the remaining children (n = 14) opted to have their parent step outside. This option was given to offer each child some degree of control and empowerment within the situation.

Each child interview involved three activities: (a) a Draw-And-Tell Conversation (Driessnack, 2006), (b) completion of the Multidimensional Student Life Satisfaction Scale (MSLSS; Huebner, 2001), and (c) the response to a single-item household/health literacy query. The DTC created the qualitative (QL) data set for each child, while the MSLSS and single-item query made up the quantitative (QN) data set. The sequence of data collection, from QL➔QN, was designed to elicit a minimally prompted subjective response (QL) before moving to the more focused and verbal-dependent question and answer tasks (QN). All children completed the entire interview process. All interviews were digitally audio-recorded and then transcribed verbatim. Field notes were kept and attached to each transcription for inclusion in the qualitative analysis.

Child Data

The Draw-and-Tell-Conversation (DTC). The use of art-based techniques to engage children in health-related research have been used successfully in diverse populations (Archibald et al., 2014). The DTC is one art-based child-centered technique that uses a child's own drawings to evoke her/his subsequent self-reported narrative. In the DTC, the directive for the drawing task reflects the purpose of the study or inquiry; the drawing itself serves as a transitional space for children to organize their thoughts prior to being asked to speak (Driessnack, 2006). The act of drawing and then telling about it gives children an opportunity to retrieve and share their thoughts, feelings, and experiences in a developmentally appropriate manner by tapping their internal sensory cures rather than accessing external language-based cues (Bagnoli, 2009; Wesson & Salmon, 2001). In short, by asking children to draw first, children are better able to organize their thoughts before they are asked to share them (Driessnack, 2006, 2005; Driessnack & Furukawa, 2011; Wesson & Salmon, 2001).

Each child began the data collection session with an introduction to the DTC process and the choice of art-supplies. Children were encouraged to select their preferred size of art paper (small vs. large) and their choice of drawing instruments, which included multi-colored pencils, markers, and crayons. The blank sheet of paper represents a familiar medium with secure borders wherein the child has freedom of expression (Driessnack, 2006). The different drawing instruments offer the child control over the medium used for expression, which also serves to empower the child within the research context (Clark, 2011).

Children were given a single drawing prompt (Table 4), to "Think about a time when you felt really good about yourself and really good about your life... a time when your life was really good." They were then asked to draw that time. When children were finished drawing, they were

asked to tell the researcher about their drawing. The researcher used probes, when necessary, to elicit the components of participant experience.

Table 4

DTC Drawing Prompts & Probes

Drawing prompt	**Probes**
Think about a time when you felt *really good* about yourself and *really good* about your life... a time when your life was *really good*.	*Who* is here? *What's* going on? *When* was this? *Where* are you?
Then I want you to draw it.	*What* is it that you really liked?
When you are done I want to hear all about it.	*What* if anything would make your life even better in this picture?

Following the DTC, children were transitioned to the Multidimensional Student Life Satisfaction Scale (MSLSS) Huebner (2001) and single item household literacy query.

The Multidimensional Student's Life Satisfaction Scale (MSLSS). Each child completed the Multidimensional Student Life Satisfaction Scale (MSLSS; Appendix F). The MSLSS was developed through child-specific research and provides an assessment of children's life satisfaction in both total and individual specific domains including family, friends, school, living environment, and self (see Table 5 for all MSLSS domain items). The MSLSS is comprised of 40 items and written at the 1.5 grade level. Possible option responses include: *never* (1), *sometimes* (2), *often* (3), and *almost always* (4). Ten items are reverse keyed/scored, so that *never* = 4 and so forth. Scoring is straightforward; a higher score indicates higher levels of LS, and a lower score indicates lower levels of LS. There is normative data for children across grades 3 through 5, giving a comparative group (Huebner, 1994).

The MSLSS is an instrument demonstrating strong internal consistency with Cronbach alpha coefficients reported as ranging from .90 to .92 for the total scale, with specific domain alpha estimates reported as ranging from .79 to .85 (family), .81 to .85 (friends), .83 to .85

(school), .79 to .83 (living environment), and .72 to .84 (self; Huebner & Gilman, 2002). Test-retest reliability is evident in two- and four-week time periods, with coefficient that range from .70 to .90 (Greenspoon & Saklofske, 1997; Huebner, 1994). Studies of validity have consistently supported the five-factor model (Gilman, Huebner, & Laughlin, 2000; Greenspoon & Saklofske, 1997). The MSLSS is recognized as an effective tool in the assessment of life satisfaction in children and adolescents for research, but the clinical utility is not yet known.

The MSLSS was administered independently to each child. To offer some control over the research process, the children were given the option of marking the response sheet by themselves or using the researcher as a scribe. After an introductory explanation, each of the 40 MSLSS items was read aloud, along with providing the written scale in front of the child. Reading the questions aloud offered the child the opportunity not only to hear the question clearly, but also offered them the opportunity to clarify the meaning of the question. Clarification requests were in themselves informative, offering the researcher an opportunity to gain insight into the child's perspective and identify sources of confusion. On occasion, verbal probes were used to assess participant interpretation of questions and to probe particular questions and/or responses. The children's commentary during administration of the MSLSS was captured in the recording and included as data.

Table 5

MSLSS Domain Items

Family	Friends	School	Living Env.	Self
• I enjoy being at home with my family. • My family gets along well together. • I like	• My friends treat me well. • My friends are nice to me. • I wish I had different	• I look forward to going to school. • I like being in school. • School is	• I like where I live. • I wish there were different people in my neighborhod.	• I think I am good looking. • I am fun to be around. • I am a nice person. • Most people

spending time with my parents. • My parents and I do fun things together. • My family is better than most. • Members of my family talk nicely to one another. • My parents treat me fairly.	friends.* • My friends are mean to me.* • My friends are great • I have a bad time with my friends.* • I have a lot of fun with my friends. • I have enough friends. • My friends will help me if I need it.	interesting. • I wish I didn't have to go to school.* • There are many things about school I don't like.* • I enjoy school activities. • I learn a lot at school. • I feel bad at school.*	* • I wish I lived in a different house.* • I wish I lived somewhere else.* • I like my neighborhood • I like my neighbors. • This town is filled with mean people.* • My family's house is nice. • There are lots of fun things to do where I live.	like me. • There are lots of things I can do well. • I like to try new things.

Note. *Reverse keyed/scored items. Source: Manual for the Multidimensional Students' Life Satisfaction Scale, by Scott Huebner (2001).

Household literacy (single-item). Children were asked a single-item household literacy query, "How many children's books do you have in your home?" This single item has been used to provide additional insight when assessing household (parent) and health literacy (Driessnack, Chung, Perkhounkova, & Hein, 2014). A child report of 10 or fewer children's books in the home has been found to be an independent indicator of inadequate household (parent) health literacy (Driessnack et al., 2014). In contrast, when parents are queried, a report of more than 10 children's books in the home has been found to indicate adequate household (parent) health literacy (Sanders, Zacur, Haecker, & Kloss, 2004). Household literacy impacts health-related knowledge, behaviors, and experience, including children's health access and outcomes (DeWalt & Hink, 2009; Driessnack et al., 2014; Sanders et al., 2004; Yin et al., 2009). Notably, household

literacy has been found to influence the quality of parent proxy report for children with ADHD (Porter et al., 2012).

Parent Contextual Data

Parents were asked to complete three separate contextual data sets for child and family contextual description and data analysis while their child was being interviewed. The three data sets included: (a) a demographic/ADHD sheet, (b) the Vanderbilt Assessment Scale – Parent Information (NICHQ, 2002), and (c) the Newest Vital Signs (NVS; Weiss et al., 2005).

Demographics. The demographic/ADHD sheet included the child's (a) sex, (b) age (year/month), (c) grade, and (d) race/ethnicity, (e) the family socio-economic status (school lunch program eligibility), (f) county of residence (Oregon Rural Health designation rural/urban), (g) age at time of ADHD diagnosis, (h) ADHD treatment, and (i) comorbid health conditions. See Appendix G for the full demographic/ADHD-related data matrix.

The National Institute for Children's Healthy Quality (NICHQ) Vanderbilt Assessment Scale (2002). The NICHQ Vanderbilt Assessment Scale – PARENT Informant (1st edition) is an adapted version of the Vanderbilt ADHD Diagnostic Parent Rating Scale (VADPRS), which was the first parent scale and considered the "gold standard" for measuring ADHD symptoms in research and clinical practice (Wolraich et al., 2003). Both scales have a total of 55-items, including 47 symptom-items and eight performance-items. The symptom-items in each scale are identical. The first 40 symptom-items highlight DSM-IV criteria for ADHD, oppositional defiant disorder (ODD), and conduct disorder (CD). The last seven symptom-items are reflective of internalizing problems (anxiety/depression) and do not specify DSM-IV (or DSM5) criteria.

The NICHQ Vanderbilt adaptation is evident only in the performance-items; where the

VADPRS asks about following directions, disrupting class, assignment completion, and organizational skills (items covered in the symptom checklist), the NICHQ version has three items of relationship performance (parents, siblings, peers) and one item related to participation in organized (extracurricular) activities. These last four items on the NICHQ version tuck well into the MSLSS domains, providing further descriptive/data support. Response options for the NICHQ Vanderbilt Assessment Scale are divided into symptom-items that are rated on a 4-point Likert-type scale from *never* (0) to *very often* (3), and performance-items that are rated on a 5-point Likert-type scale from *excellent* (1) to *problematic* (5). Scoring is specific to each symptom-item domain (e.g., ADHD, ODD, CD, and anxiety/depression) and/or performance indicator. See Appendix H for the full measure and scoring guidelines.

The rationale for selecting the NICHQ Vanderbilt Assessment Scale – PARENT Informant (1st edition) is multi-fold. First, the first edition is available at no cost in the public domain, while the second edition must be purchased. Second, all symptom-items for ADHD, ODD, CD, and anxiety-depression are equivalent in both editions. The only difference between the two editions is the second edition omits one performance-screening question (overall school performance) and adds 10 additional comorbidity-screening questions. Lastly, the performance items on the first edition scale tap domains important to children with ADHD that are consistent with the MSLSS domains, namely academics, relationships, and participation in organized (extracurricular) activities (Dupaul et al., 2013; Martin & Huebner, 2007; McCullough et al., 2000; Suldo & Huebner, 2004).

NICHQ Vanderbilt Assessment Scale psychometrics. The Vanderbilt ADHD Assessment Scales, including the PARENT Informant (1st edition), are reliable scales in pediatric clinical and community populations. In studies, comparing the Vanderbilt ADHD

Parent Rating Scale (VADPRS) with the Vanderbilt ADHD Teacher Rating Scale (VADTRS; Wolraich, Feurer, Hannah, Pinock, & Baumgaertel, 1998) and the gold-standard Computerized Diagnostic Interview Schedule for Children (C-DISC-IV; National Institute of Mental Health, 1997), whole scale Cronbach alpha estimates for ADHD items were ≥ .90 on all three scales (Wolraich et al., 2003). Further, correlation between the VADPRS and the C-DISC-IV ADHD items revealed strong (r = .79) concurrent validity (Wolraich et al., 1998). For assessing ADHD items, the VADPRS is as reliable and valid as the C-DISC-IV.

The Newest Vital Sign. Parents completed the English version of the Newest Vital Sign (NVS), a reliable measure (Cronbach alpha > .76) of health literacy that is available in the public domain, and comprised of a Nutrition Facts label and six questions (Weiss et al., 2005). The NVS (Appendix I) has been found to correlate with the Test of Functional Health Literacy (TOFLHA), long considered the gold standard of health literacy assessment (Weiss et al., 2005). Importantly, the NVS is considered more sensitive than the TOFLHA in detecting marginal health literacy (Weiss et al., 2005). Each question answered correctly yields one point. A score of four or more indicates adequate household health literacy. The researcher provided a calculator for parents to use as needed. Parental health literacy influences the health outcomes and social determinants of health in children (Cheng, Dreyer, & Jenkins, 2009; DeWalt & Hink, 2009; Driessnack et al., 2014). In parents of children with ADHD, health literacy can affect the quality and accuracy of proxy information shared (Porter et al., 2012).

Data Analysis Process and Procedure

Data analysis occurred in three successive steps, as depicted in Figure 2: first, within method [QL] ➔ [QN], then across methods [QL⇄QN], and finally within/across methods and contextual variables.

Data analysis I: Within method.

Qualitative descriptive analysis. The researcher used a qualitative descriptive approach to analysis (Sandelowski, 2000) to analyze the DTC data, which consisted of the children's drawings and interview transcripts. Qualitative descriptive analysis is appropriate when seeking "unadorned" or minimally theorized answers to questions relevant to practitioners (Sandelowski, 2000, p. 337). The specific strategy used for analysis was qualitative content analysis, a general inductive process where codes, categories, and themes emerge through the process of analysis of the data (Zhang & Wildemuth, 2009). Qualitative content analysis moves beyond the counting of words and into realm of recognizing the manifest and latent content of visual and verbal data (Sandelowski, 2000; Zhang & Wildemuth, 2009). Utilizing this "data-near" approach, the final rendering is a straightforward, integrated summary.

Quantitative descriptive analysis. The researcher used a systematic, sequential approach to analyze the MSLSS data. This approach followed the MSLSS Manual (Huebner, 2001). The first step was to calculate each of the five the individual domain scores as well as the total MSLSS scores for each child. Then descriptive statistics, including measures of central tendency and nonparametric correlations were computed using IBM SPSS Version 24 to describe and summarize each child's MSLSS scores. Of important analytic note, some decisions were made in administering the MSLSS to children and in analyzing their results to honor the child-centered interpretive position of this study. For instance, two children (C04/C17) preferred to give an in-between (e.g., 2.5 vs. 3.0) rather than an "absolute" value to specific items and two children (C04/C19) opted to omit some MSLSS items. Since their response was interpreted as purposeful, the in-between values were calculated and no imputations were made for the (four) omitted data points. Similarly, one child (C15) recorded the same value (4.0) across all 40-items. Because this

child's response was consistent across straightforward and negatively keyed domain items, and there were no statistical differences in overall MSLSS mean scores when her data were included or excluded, her scores were retained to honor her contribution. Finally, one child (C19) had a single random missing data point for which no imputation was made, as there was no statistical difference with or without imputation.

Data analysis II: Across methods. The researcher converged the DTC and MSLSS data into a data matrix (Appendix J) and examined these across methods from a within/across case (child) interpretive perspective (Ayres, Kavanaugh, & Knafl, 2003). The intent of this step in the analysis was to identify any patterns and/or clusters of children's responses across the two different methodological approaches to data collection (e.g., DTC and MSLSS). The children's MSLSS commentary data captured during administration of the MSLSS were used in this section of analysis to lend complementary and/or contradictory evidence to the DTC and MSLSS data.

Data analysis III: Within/across methods and contextual variables. The third step in analyses expanded beyond the child data, as a stand-alone data set, to include a variety of contextual variables outlined in the second specific aim. With the exception of household health literacy, the contextual data were obtained from parents. This analysis examined the children's DTC themes as they were aligned with the child/family demographic data, parent-reported ADHD-related data, and child-reported household/health literacy scores. The analysis concentrated on the children's MSLSS scores as they were aligned with the child/family demographic data, parent reported ADHD-related data, and household/health (child/parent) literacy scores. Each variable was examined to see if/how it contributed to the larger patterns and/or clusters around the children's DTC and MSLSS results. The researcher facilitated this analysis by the construction of a demographic/ADHD-related data matrix (Appendix G).

Procedures for Ensuring Data Integrity and Methodological Rigor

There is no single procedure that will ensure the correctness of participant description and/or their unique interpretation of accounts; however, there are steps to safeguard data integrity and facilitate methodological rigor that support validity and minimize the researcher's influence on participant and setting (Maxwell, 2013). These steps involve procedures during data collection, analysis, and management, as well as the reflexivity and responsiveness of the researcher. The researcher addressed data integrity and rigor in the following ways.

First, all drawings were either kept or scanned to file. All interviews were audiotaped and transcribed verbatim by the researcher facilitating prolonged engagement with the data. The transcripts were compared to the audiotape to establish accuracy and to get a sense of the whole (Sandelowski, 1995; 2000). Second, the researcher assessed the convergence of qualitative and quantitative data (triangulation) both within and across method to assess corroborating evidence (Creswell & Miller, 2000). Third, the researcher assessed the data for discrepant and negative cases (outliers), or evidence that did not fit within the analytic frame, as examining both the supporting and discrepant data helps identify bias and assumptions (Maxwell, 2013). Fourth, the researcher maintained a field journal and reflective notes to provide clear documentation of all research decisions, activity, and insights. This document and all data were made available to PhD nurse researchers for examination of both the research process and the product (Creswell & Miller, 2000). Finally, all data were kept secure in compliance with OHSU IRB policy and close collaboration with an experienced child researcher and pediatric nurse practitioner was maintained throughout the entire research process. These steps were taken to increase the security, trustworthiness and validity of the data (Maxwell, 2013).

The Protection of Human Rights

Children are considered persons with diminished autonomy and entitled to protection. Thus, every effort was made to actively uphold their legal, ethical, and human rights, from seeking parental permission/consent and child assent prior to data collection, to maintaining privacy during interviews and confidentiality with secure data practices. Further, all policies and procedures outlined in OHSU's Human Research Protection Program and Children as Research Subjects were respected. Full disclosure regarding the researcher's status as a mandatory reporter of child abuse was made at the initial meeting. Of important note, no abuse was disclosed.

Parental permission/consent and child assent. The researcher obtained voluntary parental permission/consent (Appendix D) and child assent (Appendix E) prior to data collection and following explanation of the study, at the time of interview. Written parental permission/consent was obtained first, with child verbal/written assent obtained in the presence of the consenting parent.

Privacy. Interviews were held in a pre-designated mutually agreed upon place, including separate rooms in community centers, public libraries, medical offices, and private homes. The goal was to identify a place familiar to the child and where there was space and privacy to conduct the interview.

Confidentiality. The only documentation with identifiable child/parent information were the consent and assent forms (Appendices D-E). These forms were kept in a locked banker's bag for transport and secured in separate locked drawer away from all data sets. Each data set was identified by codes only, for example, C01 (Child 1) and P01 (Parent 1), with the number assigned according to order of enrollment into the study. Only personal information directly

related to the study design/question was collected. Only age, sex, and any relevant demographic or health item will be used in the description of children's stories or drawings.

Other Ethical Considerations

Role clarification. In this study, the primary researcher is a psychiatric mental health nurse practitioner (PMHNP); therefore, role clarification was offered. Each parent and child-participant was informed that the researcher was fulfilling a primary research function, rather than a treatment role. As a result, questions and/or concerns needed to be addressed by the child's primary (medical or mental health) care provider. Further, pediatric mental health counselors were identified in each county in case any child experienced undue anxiety or concern that necessitated further action. Of note, several children were tearful during parts of the interview, but none were upset or tearful upon conclusion of the interview.

Incentives. The process of incentivizing research participants for participation is a common but complicated practice. In pediatrics, there is no agreed upon appropriate use of incentives or payments, and practices range from token incentives such as a toy, book, or candy bar to reimbursement for child/family incurred expenses (e.g., travel, gas, parking; Tishler & Reiss, 2011). Given that this study involved the direct participation of the child for tasks including interview conversation, drawing, and the completion of a questionnaire, and the indirect participation of the parent by providing child-participant transportation and information, both were thanked for their participation; each child was given a set of art-supplies (~$11.00) and each parent was given an Amazon gift card ($10.00). These awards were discussed in the informed consent process and issued upon completion of data collection.

CHAPTER 4: RESULTS

The aim of this parallel convergent mixed methods study was to describe how children (aged 7 to 11 years) with ADHD evaluate their life satisfaction. In this chapter, the researcher will present the study results. First, participant demographic and interview data is presented, followed by the study data, which is organized and presented in order of analysis (i.e., within, across, within/across methods). Bronfenbrenner's bioecological model of human development is the theoretical framework underpinning the analysis and presentation of the children's life satisfaction stories (Bronfenbrenner & Morris, 2006). Researcher interpretation was kept to a minimum in order to maintain a data-near child perspective. The chapter culminates with an integrated summary of how children with ADHD communicated their life satisfaction.

Participant Demographics

In the final sample ($N = 20$), 18 children (90%) were from rural/frontier settings (i.e., six or fewer people per square mile) and two children (10%) were from one urban setting. Children were well distributed in age and sex. The average age of children was 9.3 years. Eleven (55%) were males and nine (45%) were females. All were enrolled in school; two were in second grade, four in third grade, four in fourth grade, seven in fifth grade, and three in sixth grade. Twelve (60%) were White and eight were non-White, with five children (25%) of mixed race and three (15%) who identified as Hispanic. The researcher estimated socioeconomic status based on the child's eligibility for the U.S. Department of Agriculture (USDA) free or reduced school lunch program. According to the USDA, children with family incomes at or below 130 percent of the Federal poverty guidelines are eligible for free meals. Those with incomes between 130 percent and 185 percent are eligible for reduced-price meals. The Federal poverty rate for a family of four as of July 2016 was $31,590 for free and $44,955 for reduced lunch. Half of the children

(50%) came from families that qualified for the free or reduced lunch program and half (50%) did not. See Appendix G for the full demographic/ADHD-related matrix.

Participant Interviews

The children's (N = 20) interviews ranged from 22 to 65 minutes in duration (M = 35.1, SD = 12.41). Data collection time with girls (n = 9, M = 41.33, SD = 14.13) exceeded the time with boys (n = 11, M = 30.00, SD = 8.33). This may be attributed in large part due to the finding that girls spent more time completing the DTC drawing task (M = 20.78, SD = 12.18) compared to boys (M = 8.18, SD = 5.44). There was little difference between girls and boys with respect to the time spent completing the MSLSS, which ranged from 15 to 35 minutes (M = 21.65, SD = 5.47) for both groups.

Data Analysis I: WITHIN Methods

The Draw-and-Tell Conversation (DTC). The first step in the DTC analysis was to examine each child's drawing for content and general composition, noting what the child chose to draw (or omit) and how s/he symbolized the story in regards to the use of color, lines, and space. This visual examination is one approach often used to begin "sense-making" when studying children's drawings (Malchiodi, 1998). The researcher organized and prepared each child's DTC accompanying narrative transcript in a common format for analysis. Each transcript was read closely and repeatedly to get a sense of the whole (Sandelowski, 1995). Then, in iterative fashion, the researcher examined the children's drawings and transcript. Text excerpts representing the basic units of the story were highlighted and reflective notes of analyses were made concurrently. Based on the direct DTC text excerpts, the researcher used initial descriptive codes of *family, friends, self, others, pets, doing, being*, *getting*, *playing, recent, remote, inside,* and *outside* to separate chunks of data and to get an initial sense of each child's story (Figure 3).

Bronfenbrenner's PPCT lens was applied for theoretical reflection and insight.

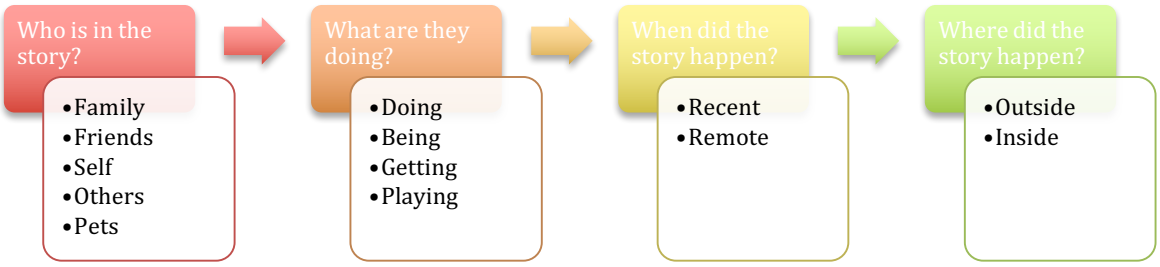


Figure 3. Initial descriptive codes.

Subsequently each child's DTC story was organized into descriptive categories of who, what, when, where, and meaning, and placed in a narrative frame for continued analysis of individual and collective stories (Appendix K). Using this approach, the researcher discerned three themes after the first eleven interviews (i.e., thematic saturation); however, the depth of description of meaning continued through the eighteenth interview (i.e., meaning saturation). The number of child participant interviews was consistent with parameters most often needed to establish sample size and data saturation in qualitative research (Hennink, Kaiser, & Marconi, 2016).

DTC findings. Children told life satisfaction stories that included themselves and family members—both nuclear (e.g., parents, siblings) and extended (e.g., grandparents, aunts, uncles, cousins). Of particular interest from a child development perspective was that none of these school-aged children's drawings/stories centered on their peers/friend(s), though one child did draw a cousin she considers a friend and a few children did infer having friends and/or teammates. Also of interest was that pets were included in some stories. The children's stories were primarily action-oriented and situated outdoors. The timelines ranged from relatively recent events (e.g., "this summer") to well into the past (e.g., "four years ago"). The final thematic

structure involved three themes: (a) activity, (b) nature, and (c) connections. The themes will be described individually, although they were often intermixed in the children's DTC.

Activity. The majority (90%; *n* = 18) of children depicted and/or described themselves engaging in some form of activity. Activity could be shared with others or solo. When the activity was shared, it varied in focus from recreational to purposeful to celebration. Thirteen children (65%) described engaging in a *shared* activity with a specific focus, often with family members. The focus of s*hared* activity varied from *recreational* (e.g., going to the lake, riding theme park rides, playing sports) to *purposeful* (e.g., going to the pet shelter to pick out a dog), and in *celebration* (e.g., baptism, birthday). Three children described solo activity, such as playing at the park or playing with their favorite game/toy. Two children told stories of blended activity, but had no clear focus. Only two children (C09/C13) told stories devoid of any activity, focusing instead on relationships.

Nature. Most (85%; *n* = 17) of the children's drawings and accompanying life satisfaction stories made direct or indirect references to the natural world. For example, children situated their drawing outdoors and/or depicted nature including mountains, lakes, beaches, blue sky, birds, grass, flowers, streams, and sunshine (direct). Children also drew and told "outdoor" stories involving swimming, building sandcastles, playing, fishing, and boating (indirect). This theme was found across rural and urban participants, but was more consistent across a subset of rural children; however, there were not an equal number of rural and urban participants, so this finding should be interpreted with caution. Only three children (C09/C17/C20) depicted their DTC stories devoid of nature, two situating their story inside and one situating their story at school with no reference to nature or the natural world.

Connections. More than half (65%, *n* = 13) of the children described the meaning or

"what made their life really good" through stories of direct (explicit) relational connections (e.g., "I got to spend time with my family" (C01). Types of direct relational connections varied along a continuum (Table 6) and included *making new connections*, *feeling connected*, *lost connections*, and/or *reconnecting.* Notably, there seemed to be two subplots that emerged in the connection stories: (a) sadness and (b) facing fears. Sadness, the first subplot, occurred in the stories of lost connections told by three children (C04/C05/C06)—all boys. Facing fears, the second subplot, occurred in the stories of either feeling connected or making a new connection told by four children (C10/07/C08/C14/C18)—all girls.

In addition to stories highlighting direct relational connections, three children (C03/C11/C16) told stories of indirect (implicit) relational connections. These stories involved their participation in a shared activity (e.g., football, fishing, soccer) with family members and/or teammates. Three children (C10/C12/C18) included pets in their connection stories. Conversely, four children (C15/C17/C19/C20) told stories devoid of any clear evidence of direct or indirect relational connections; instead, these children told stories solely centered on self.

Table 6

Connections Continuum

Element of connection	Participant q**uote**
Making new connections	"I saw a girl and I liked her immediately, we became good friends… I was really nervous" (C14) [Subplot: facing fears]
Feeling connected	"My dad and my aunt, and everybody was there… It was scary" (C08) [Subplot: facing fears]
Lost connections	"But then they separated and we had to go into our own apartment" (C06) [Subplot: sadness]
Reconnecting	"I felt really good about my life when my mom and dad got back and were friends" (C13)

The Multidimensional Student Life Satisfaction Scale (MSLSS). The researcher computed descriptive statistics, including measures of central tendency and nonparametric correlations, to describe and summarize each child's MSLSS scores.

MSLSS findings. The total life satisfaction mean score for all children was 3.08 (*SD* = .35), where a rating of four indicates the highest satisfaction and one indicates the lowest satisfaction. Across the five MSLSS individual domains (e.g., family, friends, school, living environment, and self), children's highest level of life satisfaction was with *friends* (*M* = 3.24, *SD* = .60), followed by their *living environment* (*M* = 3.14, *SD* = .51), then their *family* (*M* = 3.08, *SD* = .51), and their *school* (*M* = 3.0, *SD* = .65), with the lowest level of life satisfaction in the domain of *self* (*M* = 2.93, *SD* = .60). Table 7 depicts the descriptive statistics for the all children's individual domain and total life satisfaction scores.

Of the 40 items on the MSLSS, the most frequently endorsed item indicating the highest level of satisfaction was a negatively keyed item within the *friends* domain, stating, "I wish I had different friends, " (*M* = 3.7, *SD* = .73), with the children reporting they were satisfied with their friends and did not wish they had different friends. In contrast, the most frequently endorsed item indicating the lowest level of satisfaction was a negatively keyed item within the *school* domain, stating, "I wish I didn't have to go to school" (*M* = 2.52, *SD* = 1.25), with just over one third (35%) of the children reporting they wished they did not have to go to school. One child (C04) chose to not answer three items: two in the domain of *self*—"I think I am good looking" and "most people like me"—and one in the domain of *friends*—"I have enough friends." The child's reasoning is included in the MSLSS spontaneous comments, which are discussed in the across methods analysis. His decision to omit two of the seven items in the domain of *self* resulted in his lowest MSLSS score (*M* = 1.86) and therefore may have influenced his score for this domain.

Table 7

MSLSS Descriptive Statistics

***N*=20**	**Family**	**Friends**	**School**	**Living Env.**	**Self**	**Total**
Mean	3.08	3.23	3.00	3.14	2.93	3.08
Median	3.14	3.27	2.93	3.27	2.96	2.98
Mode	3.14	3.11	2.50	3.33	3.43	2.68*
Standard Deviation	.51	.60	.64	.51	.60	.35

***Multiple modes exist. The smallest value is shown**

The researcher found nonparametric correlations between the following subscales: *family* and *self* (r_s = .727, p < .01), *friends* and *self* (r_s = .471, p < .05), and total life satisfaction and *family* (r_s = .790, p < .01), *Self* (r_s = .899, p < .01), *friends* (r_s = .645, p < .01), and *living environment* (r_s = .459, p < 05). Of note, all domains were positively associated with total life satisfaction except for the domain of *School*.

Lastly, the researcher compared the children's MSLSS ratings to two external child data sets to see how children with ADHD evaluate their life satisfaction compared to unaffected children (Huebner, 1994; Kelly, 2011; Table 8). The first data set used for comparison was from a normative study comprised of students (N = 312; grades 3 through 8) from the southeastern U.S. (Huebner, 1994). The second data set was from a subset of students (n = 37, grades 3 through 4) from the Pacific Northwest who completed the MSLSS English version (Kelly, 2011). The total LS means from the two comparative child data sets falls within the 95% CI (2.91, 3.25) of the total LS mean for children in this study; therefore, no differences were noted between this sample of children with ADHD and the normative samples in life satisfaction at the p < 0.05 significance level.

Table 8

MSLSS Mean Comparison Scores

	Huebner (*N* = 312)	Kelly (*n* = 37)	Barfield (*N*= 20)
Family	3.10 (*SD* = .64)	3.29 (*SD* = .57)	3.08 (*SD* = .51)
Friend	3.31 (*SD* = .57)	3.27 (*SD* = .80)	3.24 (*SD* = .60)
School	2.65 (*SD* = .64)	3.05 (*SD* = .59)	3.00 (*SD* = .65)
Living Env.	3.11 (*SD* =. 62)	3.04 (*SD* = .58)	3.14 (*SD* = .51)
Self	3.13 (*SD* = .63)	3.12 (*SD* = .58)	2.93 (*SD* = .60)
Total LS	3.06 (*SD* = .24)	3.15 (*SD* = .36)	3.08 (*SD* = .35)

Household/health literacy. The final QN data included each child's answer to the single-item literacy query: "How many children's books do you have in your home?" All but one child (95%; *n* = 19) reported having more than 10 children's books in their homes.

Data Analysis II: ACROSS Methods

The researcher converged the two parallel sets of child data into a data matrix (Appendix J) and examined the data across methods from a within/across case (child) interpretive perspective (Ayres et al., 2003). The intent of this step in the analysis was to identify any patterns and/or clusters of children's responses across the two different methodological approaches to data collection (e.g., DTC and MSLSS). The MSLSS spontaneous commentary captured during administration of the MSLSS are described in this section to lend complementary and/or contradictory evidence to the DTC and MSLSS data.

Across methods findings. A number of patterns of children's responses to the DTC and MSLSS were observed in the across methods analysis. In some instances, the DTC and MSLSS data are mutually supportive, whereas in others they are not. The divergent patterns occurred within the areas of friends, self, and family. These patterns are discussed first.

Friends. In the DTC data, no child depicted a friend visually and only one child's (C09) life satisfaction story centered solely on a friendship. Only one quarter (25%; *n* = 5) of the children described or implied having a friend or friendship (*connections*) in the telling of their story. Of these children, only one child (C14) talked about making a new, non-familial friend,

while two children (C05/C09) described a family member (cousin) who fulfilled the role of a friend, and two children (C03/C16) inferred teammates were like friends.

In comparison, half (50%; *n* =10) of the children gave the MSLSS domain of friends their highest life satisfaction rating. Further, friends received the highest life satisfaction rating (*M* = 3.24, *SD* = .60), signifying that the children were more satisfied with their friends compared to their satisfaction in the other MSLSS domains. There was a small cluster of related findings: four children (C05/C09/C14/C16) included friends and friendship in their DTC story and rated the MSLSS domain of friends highest; two children (C06/C19) told DTC stories without any friends/friendship and rated the MSLSS domain of friends lowest.

The children's spontaneous MSLSS commentary in the domain of friends suggests that they experienced more problems with their friends/friendships than was evident in the DTC and MSLSS data. For instance, over half of the children (60%; *n* = 12) revealed experiencing conflict (physical/verbal), bullying, and/or exclusion experiences (Table 9). In this subgroup of 12 children, four rated friends the highest in life satisfaction and two rated friends the lowest in life satisfaction. One child's comment summarized their experience with friends/friendships, "You have a fight with them... but you're still friends... A frenemy" (C04). Another child reflected a similar dichotomy, saying "sometimes we get into fights" and sometimes "they have my back and I have their back" (C20).

Table 9

MSLSS Commentary and Friends

Element	Participant quote
Conflict	"We get into fights" (C01), "fist fights" (C04), "we argue" (C08), "we don't agree" (C03)
Bullying	"They be mean" (C07), "make me cry" (C08), "bully me" (C18), "push me down" (C19)
Exclusion	"Sometimes my friends don't want to play with me" (C20), "sometimes my friend likes to just go off and be mean with the person that isn't very nice to me" (C07)

Self. All children featured themselves in their DTC life satisfaction story. Most children (85%; $n = 17$) represented themselves in the drawing *and* the telling of a time their life was "really good." In the MSLSS, however, no child rated the domain of *self* the highest. Moreover, just under a third (30%; $n = 6$) of the children rated the domain of self the lowest, and self received the lowest rating of life satisfaction ($M = 2.93$, $SD = .60$).

This pattern of difference is perhaps best placed in context of what the children were asked to do and their spontaneous MSLSS commentary. First, in the DTC children were asked to make an open-ended evaluation about a time their life was "really good." In contrast, the MSLSS asked children to make an evaluation in response to a set of prescribed statements (e.g., "I am fun to be around") using a set of forced-response options (i.e., *never, sometimes, often, almost always*). This latter task was difficult for several children, including one child (C04) who omitted two items for specific reasons, "That's kind of a hard one; can we skip it?" and "I'm not going to answer that," and another child (C18) who was unsure, "I don't really know because sometimes I can be not that… uh nice." The children's spontaneous MSLSS commentary suggested they evaluated themselves in context of their perceived competence (or the lack thereof) in different

areas, and their perceived regulation (or lack thereof) and display of their emotions (Table 10). In the domain of self, their comments comprised statements of *self-affirmation* and/or *self-criticism*.

Table 10

MSLSS Commentary and Self

Element	Sub-element	Participant quote
Perceived competence	Self-affirming	I am good at am good at… "math, art, music" (C13), "soccer, basketball" (C16), "gymnastics" (C18)
	Self-criticism	I… "make mistakes" (C01), "get bad grades" (C03), "don't do a lot of things well" (C06), "fail math tests" (C09)
Perceived regulation	Self-affirming	I… "help people" (C06), "play with people who don't have anyone to play with" (C10), "mostly be nice" (C12)
	Self-criticism	I… "start being mean" (C08), "was being mean" (C13), "get mad, take it out on others, I know I shouldn't" (C18)

Family. Family members were featured in many children's (70%; $n = 14$) DTC life satisfaction stories; however, only two children (C16/C19) rated the MSLSS domain of *family* highest in life satisfaction. Of note is that neither of these two children highlighted family in their DTC story. Overall, children ranked family the third highest in life satisfaction. There was a cluster of five children (C08/C10/C11/C12/C20) who rated family the lowest, although two of the ratings were above the total family mean ($M = 3.08$); yet, four of these children told DTC stories of *activity* and *connections* with family.

In general, the children's spontaneous commentary in the domain of *family* lent support to the DTC themes of *nature*, *activity* and *connections.* Many children (70%; $n = 14$) talked

about spending time with family, outdoors, engaged in different activities (e.g., stargazing, going to the park, playing board games, or just spending time together). Still some of the children (35%; *n* = 7) mentioned family as experiencing conflict that related to the DTC subplot of sadness: "My sisters, they don't get along" (C12); "My brother and I fight like every single day" (C15); "We all get mad at each other" (C18); "My mom and dad fight" (C20). In other words, family could be experienced as positive and/or negative. One child (C20) captured both perspectives in a declarative statement about his parents: "I like to play with [my parents], they're fun to be around… unless they fight."

Living environment. There were few divergent patterns between the children's responses to the DTC and the MSLSS methods in the domain of *living environment*. Most children (85%; *n* = 17) situated their DTC stories in their own living environment (e.g., home, school, community), and fourteen (70%) of them were situated outdoors, representing *nature*. In the *MSLSS*, one third (35%; *n* = 7) of the children rated the domain of living environment the highest; overall, living environment received the second highest life satisfaction rating (*M* = 3.14, *SD* = .51). Of note, five of the seven children (C03/C04/C07/C08/C14) rating living environment the highest had DTC stories comprising the themes of *nature* and *activity*. At the other end of this cluster, one child (C09) omitted any reference to the natural world and rated living environment the lowest. In the MSLSS spontaneous comments, this child reported living in an apartment complex that limited access to outdoor activity.

Children's comments provided additional insights into physical space, safety, and the connection between where one lives and therefore able to do. Children commented on physical space as a desire for example: *I would live in…*"a mansion" (C06); "a house with horses and cows" (C09); "a big house" (C11), and as a desired attribute when describing their home, "It's

like so big" (C12); "There are a lot of rooms… a lot of space" (C14). Several children raised safety as an issue, "sometimes I don't feel very safe" (C18); "we see a lot of creepy things… I get a little bit scared" (C16), and in relation to emotional safety, "I have two bullies in my neighborhood" (C06); "people are kinda rude cause they don't want to play with me" (C20). Finally, the children's MSLSS spontaneous commentary suggested that their living environment influences their access to nature, activity, and connections. This is perhaps best illustrated by these two children's comments: "We live near a park and my friends live near there" (C12) versus a child who plays "only the video games because I live in apartments" (C06).

School. Only one child (C09) situated their DTC life satisfaction story at school, but the story was more about relationship (*connections*) than school/school activities. Two children (C01/C06) gave the MSLSS domain of school their highest rating, while six children (C03/C05/C13/C14/C16/C17) rated school the lowest. Overall, children rated school fourth (M = 3.00; SD = .65) among the five life satisfaction domains. The children's spontaneous commentary in relation to MSLSS school items revealed key insights about their school experiences, including their specific problems and preferences. In regards to problems, children identified difficulties with academics in general, "there's hard work I don't understand… it's complicated" (C16); "it's just really boring sometimes" (C14). They noted particularly challenging subject areas, including math, reading, and spelling, and they commented on their academic/behavioral performance: "I get bad grades" (C03); "I get into trouble" (C04). One child (C12) receiving educational supports commented on her daily school schedule: "I'm always going in and out of class." Some children (C13/C18/C19/C20) described problems with peers, including bullies in the context of school. Half of all the children were quick to identify their preferences as physical education (PE) and recess (*activity)*.

Finally, children's pets (dogs and cats) were featured equally as part of their DTC stories and MSLSS spontaneous commentary.

Data Analysis III: Within/Across Methods and Contextual Variables

The third step in analyses expanded beyond the Child Data, as a stand-alone data set, to include the contextual variables outlined in Specific Aim Two. Through this analysis, the researcher examined the children's DTC themes of *activity*, nature, and *connections* and their MSLSS scores as they aligned with the child/family demographic data, parent-reported ADHD-related data, and child-reported household/health literacy scores. This analysis was facilitated by the construction of a Demographic/ADHD-related data matrix (Appendix G).

DTC Themes and Contextual Variables

Activity, nature, connections + demographics. Fourteen children (70%) included all three DTC themes of *activity*, nature, and *connections*, either directly or indirectly. Of those conveying *nature and/*or *connections* indirectly, all were boys. Three White (non-Hispanic) children (C09/C17/C20) told DTC stories with no reference to *nature*; of these three, two were younger boys (7-8 years) who focused on solo *activity* (e.g., games) with no evidence of *connections,* and one was an 11-year-old girl who focused entirely on *connections*. Similarly, the children (C15/C17/C19/C20) telling stories devoid of *connections* were younger than the sample mean age of 9.3 years. All children (C04/C04/C09) telling stories with a subplot of sadness were boys, while those (C07/C08/C14/C18) with a subplot of facing fears were all girls.

Activity, nature, connections + parental reports of ADHD symptoms, treatment and comorbidities. There were no distinguishing patterns within/across the DTC themes and parent report of ADHD-related variables.

Activity, nature, connections + child/parent household/health literacy. There were no distinguishing patterns within/across the DTC themes and parent report of ADHD-related variables.

MSLSS Scores and Contextual Variables

MSLSS + demographics. There were a few patterns and/or clusters revealed for demographic characteristics in relation to MSLSS scores, though none that were statically significant. They include:

1. Seven children (C03/C04/C07/C08/C13/C14/C20) rated the domain of *living environment* highest. All were from rural counties, White (Non-Hispanic), above the SES indicator, meaning they did not qualify for free or reduced lunches, and five were above the sample mean age of 9.3 years.
2. Ten children (C02/C05/C09/C10/C11/C12/C14/C16/C18) rated the domain of *friends* highest; most were White (70%; $n = 7$) and above the sample mean age of 9.3 years.
3. Five children (C08/C10/C11/C12/C20) rated the domain of *family* lowest. All were from rural counties; three were of Hispanic race/ethnicity, and three were below the sample mean age of 9.3 years.

MSLSS + parental reports of ADHD-related symptoms, treatment, and comorbidities. ADHD symptoms of hyperactivity/impulsivity were negatively associated with the MSLSS domain of *friends* ($r_s = -.514$, $p = .021$). There was also a negative association between children being treated for ADHD and the MSLSS domains of *School* ($r_s = -.451$, $p = .046$) and *living environment* ($r_s = -.562$, $p = .010$). Finally, three children (C14/C15/C16) rating the domain of *family* highest had fewer parent reported ADHD symptoms.

MSLSS + child/parent household/health literacy. There were no distinguishing patterns within/across the MSLSS scores and child/parent literacy.

Child/Parent Literacy

The children's single-item household literacy query correlated positively with the parents NVS score ($r_s = .688$, $p = .001$).

An Integrated Understanding

The final analysis blended the converged Child/parent data in a preliminary attempt to create an integrated understanding of how children with ADHD evaluate their life satisfaction. To accomplish this level of analysis, the researcher used Bronfenbrenner's PPCT model as a framework (Bronfenbrenner & Morris, 2006). The data overwhelmingly spoke to the awareness (explicit and implicit) that children in this study had about the processes, persons, contexts, and times that shape their life satisfaction. The children were clear about what made their life "really good" and where their satisfaction rested. They were equally clear about what did not make their life "really good" and what diminished their life satisfaction. In other words, they were aware of their world—both the good and the bad. Children described a complexity across the life areas of family, friends, school, living environment, and self. Together, they tell a story of how children with ADHD interact with their world and how these interactions influence their life satisfaction. Their evaluative process involves a juxtaposition of relational, contextual, and personal factors.

Family matters. Spending time with family members—playing or just being—matters. The simple act of playful and/or attentive interaction with family members (e.g., "just sitting and talking… like how things are going and stuff" (C18) makes their life "really good." In contrast, family conflicts leverage their family life satisfaction (e.g., "I like to play with my parents… they're fun unless they fight (C20) even in the context of extended family members (e.g., "I

would like to spend more time with my grandparents but my mom doesn't get along with her mom very much… It makes me sad" (C18). Some life satisfaction stories moved quickly from what was "really good" to what was "really wrong" (e.g., "but then… we lost our happiness" (C06) in context of complicating family circumstances that resulted in disconnections and/or absences. Finally, for some children (C10/C12/C18) pets were considered family members that enriched their lives.

Frenemies. Having friends and friendships is a childhood right of passage but a befuddling factor when children with ADHD evaluate their life satisfaction. The contrast between friends and life satisfaction in the DTC and MSLSS data suggests that, although friends are great! They are also a source of conflict and consternation that is understood and accepted. The children conferring positive evaluations of friends/friendship were older (M = 9.5 years), mostly White/Non-Hispanic, and with fewer parent-reported ADHD symptoms and comorbidities. In contrast, the children who struggled more with friends/friendship were younger (M = 8.5 years) and had more ADHD symptoms and comorbid conditions.

School is complicated. In the context of school, children conveyed a divergence of opinions, supported by statements of preferred subjects (e.g., "PE/recess") or disliked subjects (e.g., "math, math, math" [C03]). Evaluative criteria appear related to preferences, the ability of the task to hold their attention (e.g., "sometimes it's just really boring" [C18]) and their perceived abilities and/or outcomes (e.g., "I'm good at art [C13]; "I get bad grades on tests" [C03]). Life satisfaction with school overlaps with their satisfaction in other areas, namely friends and self. Some children experienced bullying (e.g., "When we play football… they say rude names… push me down… kick my hands" [C19]) and problems with behavior (e.g., "getting into trouble" [C04]) and/or academics (e.g., "there's hard work I don't understand… it's

complicated" [C16]). Yet for one 9-year-old Hispanic girl, school was the highest area of life satisfaction (e.g., "I love school!" [C01]).

Let's go outside and do something! The children's living environments are microsystems in which they live, interact, experience life, and formulate their life satisfaction. The children in this study were often outdoors in the natural world, doing something—recreational activities with someone. Even stories of past "really good" life moments were recalled outdoors and those that told of "inside experience" actually depicted nature. For example, one child (C04) told a story about being baptized in his church depicted and described nature, "the mountains, sky, grass, and the stream." Importantly, while children were outside and doing, they were also making relational connections, something that children who told life satisfaction stories of solo activity were not doing. Living environments with space, safety, and access to play activities are preferred.

Self-evaluation is awkward. The children struggled to evaluate satisfaction with self often starting with "I don't know" followed by an evaluative response such as "That's kind of hard" (C04). They were uncertain, often defaulting to competency and/or behavior-based evaluations that were either positive, "I am good at… math, art, music" (C13) or negative, "I get mad I get really mad and I'll take it out on other people" (C18). They recognized that their self-appraisal involves the opinions of others, which is sometimes unknown and/or hard to judge e.g., "You don't know if anybody likes you because they might fake like you…" (C13). In many ways, their life satisfaction with self is a reflection of how they see themselves fitting in their world and meeting the expected performance and behavior demands.

CHAPTER 5: DISCUSSION

The impetus for this this study emerged from clinical observation of children with ADHD in pediatric primary care settings, where adult-proxy reports of children's ADHD-related symptoms and problems are the chief focus of clinical attention. A problem-focused approach helps to identify targeted solutions for problems, such as ADHD-related symptoms; however the solutions more often remain with the providers and are health-system driven and dependent (e.g., pharmacological prescriptions and/or referrals for therapy). Comparatively, little attention and/or time is given to identifying and/or enhancing children's strengths or well-being. For this study, the focus was shifted in two ways: (a) from an adult-proxy to a child-centered view and (b) away from ADHD symptoms and problems to a focus on well-being.

The purpose of the study was to explore three over-arching questions: (a) How might our approach to practice change if we broadened our clinical lens to consider a focused measure of subjective well-being (SWB) as a separate and unique factor in health? (b) Could we recognize early indicators of psychosocial dis/stress evident in their level of subjective well-being? (c) Could we improve overall health promotion efforts for children with ADHD by empowering these children and their families to recognize and build on their innate strengths and indicators of well-being? To address these questions, the researcher sought out and engaged children to evaluate their life satisfaction using two different approaches: the Draw-And-Tell Conversation (DTC) and the Multidimensional Student Life Satisfaction Scale (MSLSS).

In this chapter, the researcher discusses the results, first separately, by approach, and then collectively in an integrated summary of life satisfaction. Given the departure this study takes from the contemporary stance (i.e., child-centered and focused on well-being as opposed to adult-centered and focused on disease), the results are discussed in the context of relevant

literature and interpretations are kept to a minimum. Some topics not previously identified in the review of the literature emerged in the children's stories. The researcher will highlight these new topics and the attendant insights in this chapter. Implications for nursing research and practice are interspersed throughout the discussion and summarized in the conclusion. Then, the researcher highlights the study's strengths, limitations, and identifies areas for future study. Finally, the researcher offers a brief reflective summary. The dissertation culminates with a one-page synopsis of each child's life satisfaction story, represented by the child's drawing, DTC narrative content, MSLSS mean scores, and MSLSS commentary (Appendix L). The synopsis information is presented for transparency and credibility and for each reader to reflect upon.

DTC and Life Satisfaction

In short, children said that activities or "doing things" outdoors with others made their life "really good." Thus, their response may be symbolized as:

[ACTIVITY]+[NATURE]+[CONNECTIONS] = LIFE SATISFACTION

This finding lends simple yet profound potential to inform care and empower children and families towards health-promoting self-action. What follows is a closer look at each of the variables in the equation, as summarized in the three primary themes of *activity, nature,* and *connections*.

Activity. Activity was the predominant theme, although the type of activity seemed to be less important than the experience of doing something. Children's stories were full of gerunds, including swimming, riding theme park rides, and fishing, playing sports, celebrating special occasions, and picking out pets. One essential qualifier was that outdoor activities were typically with others, usually family. Thus, children's life satisfaction stories were more likely to be outdoors and acknowledge the sense of being connected with others. In contrast, children participating in solo activities were more likely to talk about an indoor activity. Shared activity

may help to cultivate outdoor experience and relational connections, while solo activity may render children more likely to stay indoors.

Outdoor activity emerged as a theme in two previous qualitative studies, one an evaluation of life satisfaction in high school students (Suldo et al., 2014) and the other on depicting a "good day" for pediatric cancer patients undergoing chemotherapy (Linder & Phinney, 2017). It is not clear whether activity makes life better and/or reflects when life is better. In the current study, the children's life satisfaction stories were centered on activities that provided respite from their typical daily routine and task performance demands. That most activities were outdoors may reflect the well-known restorative effects of nature and green space (Kaplan, 1995). It is plausible that children with ADHD intrinsically recognize circumstances and places that reduce their stress and enhance their well-being.

Nature. The depiction of nature was notable among the participants' responses. Nature references included both indoor and outdoor stories, and were mentioned by both rural and urban participants, although particularly pronounced among rural children. According to the theory of *biophilia*, children have an inherent inclination toward the natural world; the findings in this study certainly support this (Kellert & Wilson, 1993). For children with ADHD, biophilia and the implications and/or impact of this natural affinity may be even more salient. Richard Louv, author of *Last Child in the Woods* (2008), coined the term "Nature-Deficit Disorder" to convey the costs to children, especially children with ADHD, when they are alienated from nature. One cost of alienation from nature worth attending to is the reduced sensory stimulation. Louv contends that as society becomes more urbanized, digitally dependent, and anxiety-ridden, children spend more time indoors stimulated by electronics and less time outdoors stimulated by their own senses and sense of wonder. Another cost of alienation from nature that Louv

identified is a decreased ability to focus attention, a particularly important deficit for children with ADHD.

There is growing evidence that nature benefits children with ADHD. Researchers have found outdoor unstructured play, compared to similar play in built or indoor environments, to reduce ADHD symptoms and to improve social and emotional functioning in children with ADHD (Amoly et al., 2014; Faber Taylor & Kuo, 2011; Kuo & Faber Taylor, 2004). Nature therapy, or *green play*, has been suggested as a third-line treatment for children with ADHD—after or in conjunction with psychostimulants and behavior therapy (Kaplan, Faber Taylor, & Kuo, 2011). What is significant about this third-line option is that it not only reduces ADHD symptoms, but it is non-pharmacological and non-stigmatizing, as well as completely within the control of the family. In short, encouraging outdoor activities may have a secondary benefit of empowering families. To date, no researchers have examined the relationship between life satisfaction in children with ADHD and nature or outdoor play.

Connections. Relationships were core to creating meaning in most children's life satisfaction stories. In other words, time spent with family and friends mattered. Connections were implicit, alluded to indirectly, and explicit. Indirect connections were those that occurred in the context of shared activity, such as playing team sports or doing something with family. Explicit connections were called out in various ways, such as *making new connections* and *feeling connected.* They were also called out by noting their absences, such as children experiencing *lost connections*. These children's stories were often retrospective, before the loss, recalling in some instances that what made their life "really good" was in the past. Finally, children also talked about *re-connection*, most often to convey a sense of happiness. No matter where the connection was across the continuum, it elicited a feeling that contributed (positively

and/or negatively) to the child's life satisfaction.

The implied value of connection in relation to life satisfaction and the children's conveyance of emotion in the context of connections are especially insightful, given what is known about the challenging social and emotional lives of children with ADHD; that is, children with ADHD experience more problems with family (Foley, 2010; Hinshaw & Ellison, 2015), peers/friends (Hoza et al., 2005; Mrug et al., 2012), and emotional regulation (Barkley, 2015; Strine et al., 2006) in comparison to unaffected children. Equally notable is that children with ADHD, who often experience relational problems, are also more likely to die by suicide than children with other mental disorders (Sheftall et al., 2016). These results indicate that encouraging families to do things outside together may hold the possibility of promoting life satisfaction and protecting life in children with ADHD.

MSLSS and Life Satisfaction

Collectively, the children reported that they were satisfied with their lives and their ratings suggested that they experienced a level of life satisfaction similar to children without ADHD (Huebner, 1994; Kelly, 2011). In contrast to their overall satisfaction, children's individual evaluations, using the five MSLSS domains, indicated more nuanced profiles. The addition of the spontaneous commentary shared while completing the MSLSS provided even more context for their individual evaluation in the domains. The children ranked the MSLSS domains in order, from highest to lowest, as friends, living environment, family, school, and self. All of the domains were positively associated with total life satisfaction scores, except for school. Using the children's rank ordering as an organizing framework, the researcher will discuss each domain briefly.

Friends. Children rated *friends* as their highest area of satisfaction. What was most

interesting was that while this domain was ranked highest, most children commented on problems with friends and friendships; over half of the children reported that they had faced bullying. For example, two children spoke directly about how bullying lessened their satisfaction within the friends domain, whereas most of the others reported that problems such as bullying did not lessen their satisfaction with friends. This finding stands in some contrast to the current literature that suggests children with ADHD exhibit a *positive illusory bias* (PIB)—the tendency to overinflate their social relationships with friends/peers compared to proxy (e.g., parent, teacher, peers) ratings (Barkley, 2015; Hoza et al., 2012; Linnea et al., 2012; Mikami & Lorenzi, 2011; Owens et al., 2007). The underlying premise in PIB is that children with ADHD lack awareness of their social deficits and difficulties. The findings in this study align with past qualitative studies indicating that children with ADHD are aware of their social problems (Kendall et al., 2003; Ljusbert, 2011) but their problems do not necessarily surpass their need for friends or their satisfaction with friends. Perhaps a better line of probing about friends/friendships for children with ADHD would be to ask them about their relational experiences, rather than their perceived ability to have friends or their perceived status in relation to them. Questions about their relational experiences (e.g., "What makes a good/bad time with friends?") could reveal not only information about the children's satisfaction, but also their struggles. In turn, such discussion could allow for follow-up discussions about problem solving, especially in terms of bullying.

Living environment. Children rated the domain of *living environment* second highest in satisfaction, commenting on both positive and negative attributes. For example, the children considered space a positive or desired attribute because it was considered conducive to play, whereas safety concerns in certain environments were considered negative. Safety concerns have

emerged as important to life satisfaction in other studies, such as a recent study of life satisfaction in high school students, in which safety in their living environment was pertinent to their perceived happiness (Suldo et al., 2014). No conclusions can be drawn from the current study given the small sample size, although the findings hint that rural children, especially those who are older, White, and economically advantaged, may enjoy a higher level of life satisfaction with their living environment compared to urban children. Children in this study who were living in apartments commented on the lack of places to play outside, suggesting that the children's living environments may mediate access and opportunities for outdoor play and socialization. For some children, the lack of favorable outdoor play spaces contributed to them staying indoors; once indoors, they often opted for solo play with electronics. For clinicians, a quick survey of children's living environments may yield relevant and actionable information.

Family. Children rated the *family* third among the domains of life satisfaction. Doing things with family members, such as playing games, going places, or just "hanging out" added to their life satisfaction. Family conflict, in all forms (e.g., parent-parent, child-parent, sibling), was identified as problematic. Its presence diminished the child's desire to connect or interact with family members, a finding that is congruent with previous work in which researchers linked inter-parental conflict to reduced life satisfaction in adolescents (Bateman, 2010).

Although no statistically significant associations were noted between scores on the family domain and the demographic and contextual variables, younger, rural, Hispanic children reported lower life satisfaction suggesting potential racial/ethnic differences among ADHD families. A recent report indicated Hispanic children were more likely to disengage from treatment compared to White children (Cummings, Ji, Allen, Lally, & Druss, 2017) and to the extent this disengagement occurs may account for diminished life satisfaction; this relationship is worthy of

future investigation.

Life satisfaction with one's family was positively associated with the life satisfaction in the domain of self and with the child's total life satisfaction. What is interesting about this finding is that it again points to the encouragement of family-based interventions. Too often, the focus of clinical attention has primarily been directed to how families respond to children's ADHD-related symptoms and problems. A subtle shift in focus to include family activities that promote connections, including encouraging families to spend time together, playing games, going places, or just "hanging out" may also help to shift families away from an ADHD-related problem focus (i.e., the controlled family; Kendall & Shelton, 2003) to a well-being focus.

School. No other domain appeared as challenging or contributed less to life satisfaction than did *school.* In fact, school was the only domain of life satisfaction that was not positively associated with the children's total life satisfaction. Ironically, life satisfaction for children who were receiving treatment for ADHD was negatively associated with satisfaction with school, meaning that children who were under treatment had less life satisfaction in school. Looking to the literature, studies of children with ADHD-focused treatment and well-being are complicated by dissimilar definitions, designs, measures, and views (e.g., child versus adult proxy), such that no clear collective signal on how ADHD treatment affects children's well-being at school has emerged (Danckaerts et al., 2010). In the current study, however, treatment did not seem to improve the children's life satisfaction with school. This finding may reflect ineffective treatment and/or a basic lack of understanding of how children with ADHD experience life satisfaction. Nonetheless, the findings from this study add to the literature by drawing from the children's experience of diminished satisfaction with school, even when engaged in treatment.

Children were clear about their school-related preferences and problems. They liked

physical education (PE) and recess. They called out specific subjects they disliked, frequently identifying math and/or reading. School experiences included failed tests, getting into trouble, and being bullied and/or excluded by peers. Children who received remedial services mentioned being "removed" from their classrooms, suggesting that such removals may be disruptive for the children themselves. For some children, school was "boring," and for others it was "hard," but for many school presented complex challenges involving academics, peer relations, and/or behavior. These findings are consistent with the current literature, which indicated that children with ADHD have worse educational outcomes compared to unaffected children—even when treated (Fleming et al., 2017).

Children spend 180 days in school annually. Perhaps what has been learned in this study is that school still needs built-in time for physical activity, such as PE and recess, which remain important for all children, but especially for children with ADHD. This finding for a preference for physical activity is in the context of the finding that children look for contact with nature, as well as the literature that informs us outdoor activity reduces ADHD symptoms. Giving equal consideration to identifying these factors and forces that influence the well-being/life satisfaction of children with ADHD at school may contribute as much, if not more, to optimizing their outcomes than does focusing only on treating their ADHD symptoms.

Self. Children rated their life satisfaction in the domain of *self* lowest. This was perhaps the most disheartening yet understandable finding. Their accompanying comments suggested that they were internalizing perceived limited competence in academics and ability to regulate their emotions. Given the link between poor emotional control and reduced global life satisfaction in university students (Gudjonsson et al., 2009), this finding does not bode well for children's later satisfaction. Identifying activities where children feel confident and competent

will be important to their life satisfaction. Probing for such activities or areas of competence may contribute more positively to a child's life satisfaction than focusing on managing the child's dysregulated behaviors and/or emotions.

An Integrated Summary of Life Satisfaction

Each methodological approach added a different and in some instances, divergent view of how children with ADHD evaluate their life satisfaction. For example, in the DTC no child drew a friend, but in the MSLSS children rated the domain of friends as the highest arena for life satisfaction. All children included themselves in their DTC stories, yet they rated the MSLSS domain of self the lowest. Most children included family in their DTC story, but life satisfaction in the domain of family was diminished (third) overall. Consistent across methods was the children's evaluation of their living environment, which appeared to add to their life satisfaction. Another consistent finding was that life satisfaction with school did not appear to add to their overall life satisfaction, according to either the MSLSS or the DTC.

The children's patterns of responses may be attributed, in part, to the sequencing of methods. The DTC is an open and unstructured process, whereas the MSLSS questionnaire is closed with forced response options. The sequence was purposeful, but it is unknown if the same patterns would appear if the sequence was reversed. The DTC drawing prompt ("Think about a time your life was really good") may have also been a factor, although it was used consistently. What is most interesting is that these children with ADHD, for the most part, evaluated their life satisfaction similarly to children without ADHD. In other words, their responses were not atypical of most school-age children. These children were satisfied with their lives when they were "doing things," outdoors with others or participating in a preferred activity. The children's direct and/or indirect connection to nature permeated both. Friends contributed highly to their

life satisfaction even though friendships involved conflict. A living environment with space, safety, and access to play activities and friends was preferred. Spending time with family members (nuclear and extended) was meaningful and helped children feel connected. These descriptions are not atypical for this age. What stands out is school. Most school-age children love school; however, for these children school is understandably a challenge to their concept of self, even when children are reportedly being treated so they can succeed in school. Clearly these children are aware of their world and capable of communicating what they need when using approaches that seek their voices directly.

Conclusion

In this study, the researcher sought to broaden the clinical lens of inquiry in the examination of children with ADHD, moving away from the current adult-centered and disease-based focus to include a child-centered perspective of life satisfaction. Findings from this study suggest that by broadening the clinical lens of inquiry to include a focused measure of well-being in children with ADHD, clinicians may identify areas important to the children's life satisfaction (i.e., activity, nature, connections) and their unique contextual worlds (i.e., family, friends, school, living environment, self). The children's life satisfaction stories yielded a synopsis of insightful and actionable information, tailored to the individual that would not be a part of their typical health care visits (Appendix L). Moreover, a subset of children in this study were reportedly low in ADHD symptoms and low in life satisfaction. Using the dual-factor model, referred to earlier, these children would be considered vulnerable to psychosocial risks, as they appear to have adequate symptom control but they are not satisfied (Suldo & Shaffer, 2008). More importantly, these children's levels of di/stress may not be evident in a routine medical check that is only focused on disease-based symptoms. By identifying precursors to psychosocial

risk (e.g., low life satisfaction) clinicians may better implement health promotion strategies that empower children and families and that leverage their innate strengths and resources, thereby helping them to live well.

Implications for Nursing

Children are value-added sources of information. Recognizing their unique contribution is critical to advancing nursing science and clinical practice, although recognition alone is not enough. Nurses are, above all else, patient advocates in the health care system—even when their patients are children. Yet, the role of advocate includes action.

Nurses have an obligation to learn how to communicate effectively with children. By employing child-sensitive methods of inquiry children are better able to express their views. Children who were asked to draw and then tell their stories revealed actionable information that contributed to their life satisfaction or suggested barriers. The simple act of asking children to draw aligns with their natural abilities and produces both visual and verbal data. Draw-and-Tell Conversations are easily integrated into pediatric research and practice—in either traditional paper and crayon or electronic form. Likewise, providing children the opportunities to represent their thinking beyond standardized metric response surveys elicits insightful commentary. Children are very astute at qualifying their answers; adults need only to ask in child-sensitive ways and not assume that they already know or understand.

To cultivate the well-being of children with nurses who care for children with ADHD must seek to elicit the children's life experience beyond the purview of ADHD-related symptoms and problems, and help to develop interventions beyond medication and behavioral-focused therapy. To do this, researchers must first broaden the lenses of inquiry and approach and communicate these findings to point-of-care clinicians. The children in this study exposed the

need for interventions that move beyond the traditional symptom and behavior control and that build on their natural health promoting interests (i.e., activity, nature, and connections). This is a subtle, but easy shift to make and one that aligns with the push to integrate medical and behavioral health in primary care (Goodwin & Saunders, 2014). For example, inquiring about children's outdoor playtime fits well within basic pediatric health promotion efforts. In fact, the most recent AAP Bright Futures guidelines (2017) pointed to the need for all school-age children to have a minimum of 60 minutes of physical activity per day. Including outdoor playtime as a health-related vital sign provides an opportunity for clinicians to address the need and value of outdoor play and opens the door to examining their social determinants of health (Wessel, 2016). Inquiring about outdoor playtime and access to safe play spaces taps the very processes, persons, and contexts that support children's sense of well-being (i.e., life satisfaction). As Wessel suggested, however, practitioners need to move beyond asking about outdoor activity and making broad recommendations and towards developing a patient specific (child/family) plan.

Patient-specific information is requisite to patient-centered care that could come in the form of family-, school-, clinic-, and/or community-based interventions. The Children & Nature Network identified useful examples of such interventions, including Nature Clubs for Families, Green Schoolyards, and RX Outdoor Activity (Children and Nature, n.d.) These interventions offer nonpharmacological, non-stigmatizing, and health-promoting activities that facilitate relationships (i.e., connections), which could empower children and their families to improve their physical and mental well-being.

In sum, all children have the right to have their voices heard and to experience agency about matters that affect their lives. To honor their voices, nurses not only need to listen, but also need to do so using approaches that are child-, rather than adult-centered. Finally, nurses need to

act in ways that are patient-specific and address the broader goals of health promotion and well-being, not only when the patient is an adult, but also when the patient is a child.

Strengths and Limitations

The researcher acknowledges the presence of strengths and limitations within the frame of design, sample, and implementation. Although the sample and methods are clearly described for potential transferability, the findings are not generalizable**.** The small sample size limited the statistical evaluation of impact from purposefully collected demographics and contextual variables. The focused sample was predominantly comprised of children from rural frontier counties from one state, and while an underrepresented population, their interpretations may be unique unto themselves. It is unknown if the qualitative themes would resonate with urban children and/or if the prioritization of life domains would change with a larger sample. The sequence of data collection and analysis (QL>QN) was theoretically driven, and not controlled; therefore, the findings can only be interpreted using this approach. Finally, the analytic decisions made to honor the child-centered perspective of the study and to give children increased control over the research process may have influenced the findings, especially in some MSLSS domains where children opted to omit item responses.

Recommendations for Future Study

Given the predominance of problem-focused attention paid to children with ADHD, the findings in this study point to many opportunities for future study. First and foremost, the role of outdoor activity to enhance children's sense of well-being and promote family connections, is an area that holds promise for family-based interventions. Could outdoor activity help to improve children's life satisfaction, enhance family relationships, and improve ADHD symptom control? Secondly, school interventions are another area calling for attention. Presently, children with

ADHD who cannot focus to complete their work or who are disruptive to others are often held in at recess or limited in activity. This is counter to what the children are telling us they need, and to the emerging studies that suggest outdoor activity can improve children's attention and emotional regulation. Finally, ADHD is a multidimensional disorder and we need a multidimensional approach to assessment and treatment. Given the health system push to integrate medical and behavioral health in primary care and to attend to the social determinates of health, the time is right to broaden the clinical lens beyond a focus on proxy reports of disease-based symptoms and to pay equal attention to a focused measure of children's subjective well-being.

Personal Reflection

This study was designed from a clinical perspective and realization that children with ADHD are primarily conceived through a disease-based lens, even in a pediatric medical home with integrated behavioral health services. Further, discussion with family members and school officials repeatedly center on the child's problems and/or failure to conform to behavioral standards similar to unaffected children. The review of literature underscored the focus on pathology—even when well-being was considered, pathology was measured, and many studies of well-being in children with ADHD center on a pharmacological response. The researcher was surprised to learn how few truly child-centered studies there were. Thus, the drive to understand what is going well in the lives of children with ADHD from a child's perspective grew. The children in this study gave personal accounts of what was going well in their life and what was problematic; in essence, they seemed to understand life is a balancing act of the inherent good and the bad. Their stories sparked awareness into how clinicians and researchers, might shift their focus and actions to help children with ADHD live well. Surprisingly, the shift is simple.

REFERENCES

Adelman, H. S., Taylor, L., & Nelson, P. (1989). Minors' dissatisfaction with their life circumstances. *Child Psychiatry & Human Development*, *20*(2), 135-147. doi:10.1007/BF00711660

Alfonso, V. C., Allison, D. B., Rader, D. E., & Gorman, B. S. (1996). The extended satisfaction with life scale: Development and psychometric properties. *Social Indicators Research, 38*(3), 275–301.

Allah-Gholilo, K., Abolghasemi, A., Dehghan, H., & Imani, H. (2015). The association of alexithymia and sense of coherence with life satisfaction in attention deficit hyperactivity disorder. *Zahedan Journal of Research in Medical Science, 17*(4), e977. doi:10.5812/zjrms.17(4)2015.977

American Academy of Pediatrics. (2011). ADHD: Clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*, *128*(1), 1–16.

American Nurses Association. (2010). *Nursing's social policy statement*: *The essence of the profession* (3rd ed.). Silver Springs, MD: American Nurses Publishing.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Amoly, E., Dadvand, P., Forns, J., López-Vicente, M., Basagaña, X., Julvez, J., Alvarez-Pedrerol, M., Nieuwenhuijsen, M. J., Sunyer, J., (2014). Green and blue spaces and behavioral development in Barcelona schoolchildren: The BREATHE project.

Environmental Health Perspectives, 122(12), 1 - 34. doi: 10.1289/ehp.1408215

Angell, C., Alexander, J., & Hunt, J. (2014). "Draw, write, and tell:" A literature review and methodological development on the "draw and write" research method. *Journal of Early Childhood Research, 13*(1), 17-28. doi:10.1177/1476718X14538592

Antaramian, S. P., Huebner, S. E., Hills, L. J., & Valois, R. F. (2010). A dual-factor model of mental health: Toward a more comprehensive understanding of youth functioning. *American Journal of Orthopsychiatry, 80*(4), 462-472. doi:10.1111/j.1939-0025.2010.01049.x

Archibald, M., Scott, S., & Hartling, L. (2014). Mapping the waters: A scoping review of the use of visual arts in pediatric populations with health conditions. *Arts & Health, 6*(1), 5-23. doi:10.1080/17533015.2012.759980

Ashcroft, R. E. (2008). The declaration of Helsinki. In E. J. Emanuel, C. Grady, R. A. Crouch, R. K. Lie, F. G. Miller, & D. Wendler (Eds.), *The Oxford Textbook of Clinical Research Ethics* (pp. 141-149). New York, NY: Oxford University Press.

Ayres, L., Kavanaugh, K., & Knofl, K. A. (2003). Within-case and across-case approaches to qualitative data analysis. *Qualitative Health Research*, *13*(6), 871-83. doi: 10.1177/1049732303013006008

Bagnoli, A. (2009). Beyond the standard interview: the use of graphic elicitation and arts-based methods. *Qualitative Research*, 9(547), 547-570.

Barkley, R. A. (2015). *Attention-deficit hyperactivity disorder* (4th ed.). New York, NY: Guilford Press.

Bateman, L. (2010). Relationships between life satisfaction, symptoms of inattention, and hyperactivity/impulsivity, and depressive symptoms in high school students.

Graduate Theses and Dissertations. Retrieved from http://scholarcommons.usf.edu/etd/3001

Beauchamp, T. L. (2008). The Belmont report. In E. J. Emanuel, C. Grady, R. A. Crouch, R. K. Lie, F. G. Miller, & D. Wendler (Eds.), *The Oxford Textbook of Clinical Research Ethics* (pp. 149-155). New York, NY: Oxford University Press.

Bellamy, C. (2002). *The state of the worlds's children 2002*. New York, NY: The United Nations Children's Fund (UNICEF).

Berk, L. (2014). *Development through the lifespan* (6th ed.). Boston, MA: Pearson.

Berman, H. (2003). Getting critical with children: Empowering approaches with a disempowered group. *Advances in Nursing Science, 26*(2), 102-113.

Blumer, H. (1986). *Symbolic interactionism: Perspective and method*. Oakland, CA: University of California Press.

Booster, G. D., DuPaul, G. J., Eiraldi, R., & Power, T. J. (2010). Functional impairments in children with ADHD: Unique effects of age and comorbid status. *Journal of Attention Disorders, 16*(3), 179-189. doi:10.1177/1087054710383239

Boyer, E. (1990). *Scholarship reconsidered: Priorities for the professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bronfenbrenner, U., & Morris, P. (2006). *The bioecological model of human development*. In R. M. Lerner (Ed.), *Theoretical models of human development*. Hoboken, NJ: Wiley.

Bussing, R., & Mehta, A. S. (2013). Stigmatization and self-perception of youth with attention deficit/hyperactivity disorder. *Patient Intelligence, 5*(1), 15-27. doi:10.2147/PI.S18811

Carroll, T., & Gutmann, M. P. (2010). The limits of autonomy: The Belmont Report and the history of childhood. *Journal of the History of Medicine and Allied Sciences, 66*(1).

doi:10.1093/jhmas/jrq021).

Chappel, A., Suldo, S. M., & Ogg, J. (2014). Associations between adolescents' family stressors and life satisfaction. *Journal of Child and Family Studies*, *23*(1), 76–84. doi:10.1007/s10826-012-9687-9

Cheng, T. L., Dreyer, B. P., & Jenkins, R. R. (2009). Introduction: Child health disparities and health literacy. *Pediatrics, 124*(3), S161. doi:10.1542/peds.2009-1100C.

Cheung, K., & Theule, J. (2016). Parental psychopathology in families of children with ADHD: A meta-analysis. *Journal of Child and Family Studies, 25*, 3451-3461. doi:10.1007/s10826-016-0499-1

Chorpita, B. F., Moffitt, C. E., & Gray, J. (2005). Psychometric properties of the revised child anxiety depression scale in a clinical sample. *Behaviour Research and Therapy, 43*, 309-322.

Clark, C. D. (2011). *Doing child-centered qualitative research: In a younger voice*. New York, NY: Oxford University Press.

Coad, J. (2007). Using art-based techniques in engaging children and young people in health care consultations and/or research. *Journal of Research in Nursing, 12*(5), 487-497. doi:10.1177/1744987107081250.

Coghill, D., & Hodgkins, P. (2016). Health-related quality of life of children with attention-deficit/hyperactivity disorder versus children with diabetes and healthy controls. *European Child & Adolescent Psychiatry*, *25*, 261–271. doi:10.1007/s00787-015-0728-y

Coon, E. R., Quinonez, R. A., Moyer, V. A., & Schroeder, A. R. (2014). Overdiagnosis: How our compulsion for diagnosis may be harming children. *Pediatrics* (Advance online

publication). doi:10.1542/peds.2014-1778

Corrigan, P., Larson, J. E., & Rusch, N. (2009). Self-stigma and the "why try" effect: Impact on life goals and evidenc-based practices. *World Psychiatry, 8*(2), 75-81. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694098

Creswell, J. W. (2015). *A concise introduction to mixed methods research.* Thousand Oaks, CA: SAGE.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124-131.

Cummings, J. R., Wen, H., & Druss, B. G. (2013). Improving access to mental health services for youth in the United States. *JAMA, 309*(6), 553-554.

Cummings, J. R., Ji, X., Allen, L., Lally, C., & Druss, B. G. (2017). Racial and ethnic differences in ADHD treatment quality among Medicaid-enrolled youth. *Pediatrics*, *139*(6), e20162444.

Danckaerts, M., Sonuga-Barke, E. J. S., Banaschewski, T., Buitelaar, J., Döpfner, M., Hollis, C., … & Coghill, D. (2010). The quality of life of children with attention deficit/hyperactivity disorder: A systematic review. *European Child & Adolescent Psychiatry*, *19*(2), 83–105. doi:10.1007/s00787-009-0046-3

Davenport, L. (2015, June 1). *True economic burden of ADHD revealed*. Retrieved from http://www.medscape.com/viewarticle/845695

Desousa, C., Murphy, S., Roberts, C., & Anderson, L. (2008). School policies and binge drinking behaviours of school-aged children in Wales: A multilevel analysis. *Health Education Research, 23,* 259–271. doi:10.1093/her/cym030

DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: A systematic review of the literature. *Pediatrics, 124*(3), 265-274.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95,* 542-575.

Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research, 31*, 103-157. doi:10.1007/BF01207052

Diener E. (2000). Subjective well being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34–43.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.

Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 63–73). New York, NY: Oxford University Press.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302.

Diamantopoulou, S., Henricsson, L., & Rydell, A. M. (2005). ADHD symptoms and peer relations of children in a community sample: Examining associated problems, self-perceptions, and gender differences. *International Journal of Behavioral Development, 29*, 388–398. doi:10.1080/01650250500172756

Diekema, D. S. (2006). Conducting ethical research in pediatrics: A brief historical overview and review of pediatric regulations. *Journal of Pediatrics, 149*(3), S3–11. doi:10.1016/j.jpeds.2006.04.043

Dolidze, K., Smith, E. L., & Tchanturia, K. (2013). A clinical tool for evaluating emotional well-

being: Self-drawings of hospitalized children. *Journal of Pediatric Nursing, 28*(5), 470-478. doi:10.1016/j.pedn.2013.02.026

Doshi, J. A., Hodgkins, P., Kahle, J., Sikirica, V., Cangelosi, M. J. Setyawan, J., … & Nuemann, P. J. (2012). Economic impact of childhood and adult attention-deficit/hyperactivity disorder in the United States. *Journal of American Academy of Child and Adolescent Psychiatry, 51*(10), 990-1002. doi:10.1016/j.jaac.2012.07.008.

dosReis, S., Barksdale, C. L., Sherman, A., Maloney, K., & Charach, A. (2010). Stigmatizing experiences of parents of children with a new diagnosis of ADHD. *Psychiatric Services, 61*(8), 811-816.

Driessnack, M. (2005). Children's drawings as facilitators of communication: A meta-analysis. *Journal of Pediatric Nursing*, *20*(6), 414-423.

Driessnack, M. (2006). "Draw and tell conversations" with children about fear. *Qualitative Health Research, 16*(10), 1414-1435.

Driessnack, M., Chung, S., Perkhounkova, E., & Hein, M. (2014). Using the "newest vital sign" to assess health literacy in children. *Journal of Pediatric Health Care*, *28*, 165-171.

Driessnack, M., & Furukawa, R. (2011). Arts-based data collection techniques used in child research. *Journal for Specialists in Pediatric Nursing*, *17*, 3-9. doi:10.1111/j.1744-6155.2011.00304.x.

Driessnack, M., & Gallo, A. M. (2013). Children "draw-and tell" their knowledge of genetics. *Pediatric Nursing*, *39*(4), 173-180.

DuPual, G., Gormley, M., & Laracy, S. (2014). Comorbidity of LD and ADHD: Implications of DSM-5 for Assessment and Treatment. *Journal of Learning Disabilities, 46*(1), 43-51. doi:10.1177/0022219412464351

Eisenberg, D., & Schneider, H. (2007). Perceptions of academic skills of children diagnosed with ADHD. *Journal of Attention Disorders*, *10*(4), 390-397. doi:10.1177/1087054706292105

Elkins, I. J., Malone, S., Keyes, M., Iacono, W. G., & McGue, M. (2011). The impact of attention-deficit/hyperactivity disorder on preadolescent adjustment may be greater for girls than for boys. *Journal of Clinical Child & Adolescent Psychology, 40*(4), 532-545. doi:10.1080/15374416.2011.581621

Evangelista, N. M., Owens, J. S., Golden, C. M., & Pelham, W. E. (2008). The positive illusory bias: Do inflated self-perceptions in children with ADHD generalize to perceptions of others? *Journal of Abnormal Child Psychology, 36*, 779-791. doi:10.1007/s10802-007-9210-8.

Faber Taylor, A., Kuo, F. E. M., (2011). Could exposure to everyday green spaces help treat ADHD? Evidence from children's play settings. *Applied Psychology: Health and Well-Being, 3*(3), 281-303.

Faraone, S. V., & Mick, E. (2010). Molecular genetics of Attention Deficit Hyperactivity Disorder. *The Psychiatric Clinics of North America*, *33*(1), 159–180. doi:10.1016/j.psc.2009.12.004

Felce, D., & Perry, J. (1995).Quality of life: its definition and measurement. *Research in Developmental Disabilities, 16*(1), 51-74. doi:10.1016/0891-4222(94)00028-8

Fleischman, A. R., & Collogan, L. K. (2008). Research with children. In E. J. Emanuel, C. Grady, R. A. Crouch, R. K. Lie, F. G. Miller, & D. Wendler (Eds.), *The Oxford Textbook of Clinical Research Ethics* (pp. 446-60). New York, NY: Oxford University Press.

Fleming, M., Fitton, C. A., Steiner, M. F. C., McLay, J. S., Clark, D., King, A., … & Pell, J. P. (2017). Educational and health outcomes of children treated for attention

deficit/hyperactivity disorder. *JAMA Pediatrics*. doi:10.1001/jamapediatrics.2017.0691

Foley, M. (2010). A comparison of family adversity and family dysfunction in families of children with attention deficit hyperactivity disorder (ADHD) and families of children without ADHD. *Journal for Specialists in Pediatric Nursing, 16*(1), 39–49. doi:10.1111/j.1744-6155.2010.00269.x

Gadermann, A. M., Schonert-Reichl, K. A., & Zumbo, B. D. (2010). Investigating validity evidence of the satisfaction with life scale adapted for children. *Social Indicators Research*, *96*(2), 229-247.

Galloway, H., & Newman, E. (2017). Is there a difference between child self-ratings and parent proxy-ratings of the quality of life of children with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD)? A systematic review of the literature. *ADHD Attention Deficit and Hyperactivity Disorders, 9*(1), 11-29. doi:10.1007/s12402-016-0210-9

Gilman, R., & Huebner, S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly, 18*(2), 192–205. doi:10.1521/scpq.18.2.192.21858

Gilman, R., Huebner, E. S., & Laughlin, J. (2000). A first study of the Multidimensional Students' Life Scale with adolescents. *Social Indicators Research, 52*, 135-160.

Gilman, R., Huebner, E. S., Tian, L., Park, N., O'Byrne, J., Schiff, M., …& Lanknecht, H. (2008). Cross-national adolescent multidimensional life satisfaction reports: Analyses of mean scores and response style differences. *Journal of Youth and Adolescence, 37*, 142-154. doi:10.1007/s10964-007-9172-8

Glantz, L. H. (1996). Conducting research with children: Legal and ethical issues. *Journal of American Academy of Child and Adolescent Psychiatry, 35*(10), 1283-91. doi:10.1097/00004583-199610000-00015

Goodenough, F. (1926). *Measurement of intelligence by drawings.* New York, NY: Harcourt Brace & World.

Goodenough, F. (1928). Studies in the psychology of children's drawings. *Psychological Bulletin, 25*, 272-283.

Goodwin, K., & Saunders, J. B. (2014, Jan). Improving children's mental health. *National Conference of State Legislatures, 22*(2).

Greenspoon, P. J., & Saklofske, D. H. (1997). Validity and reliability of the Multidimensional Students' Life Satisfaction Scale with Canadian children. *Journal of Psychoeducational Assessment, 15,* 138-155.

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research, 54*(1), 81-108.

Greig, A., Taylor, J., & MacKay, T. (2013). *Doing research with children* (3rd ed.). Los Angeles, CA: SAGE.

Griffin, M., & Huebner, E. S. (2000). Multidimensional life satisfaction reports of students with serious emotional disturbance. *Journal of Psychoeducational Assessment, 18*, 111-124.

Gudjonsson, G. H., Sigurdsson, J. F., Eyjolfsdottir, G. A., Smari, J., & Young, S. (2009). The relationship between satisfaction with life, ADHD symptoms, and associated problems among university students. *Journal of Attention Disorders, 12*(6), 507-515. doi:10.1177/1087054708323018.

Harris, D. (1963). *Children's drawings as measures of intellectual maturity.* New York, NY: Harcourt, Brace & World.

Harter, S. (1999). *The construction of the self: A developmental perspective.* New York, NY: Guilford.

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation: How many interviews are enough?. *Qualitative health research*, *27*(4), 591-608.

Hinshaw, S. P. (2005). The stigmatization of mental illness in children and parents: Developmental issues, family concerns, and research needs. *Journal of Child Psychology and Psychiatry, 46*(7), 714-734.

Houck, G., Kendall, J., Miller, A., Morrell, P., & Wiebe, G. (2011). Self concept in children and adolescents with ADHD. *Journal of Pediatric Nursing*, *26*(3), 239–247. doi:10.1016/j.pedn.2010.02.004

Hoza, G. (2007). Peer functioning in children with ADHD. J*ournal of Pediatric Psychology, 32*(6), 655-663.

Hoza, B., Gerdes, A. C., Hinshaw, S., Arnold, L. E., Pelham, W. E., Molina, …& Odbert, C. (2004). Self-pereptions of competence in children with ADHD and comparison children. *Journal of Counsulting and Clinical Psychology, 72*(3), 382-391.

Hoza, B., Mrug, S., Gerdes, A.C., Hinshaw, S.P., Bukowski, W.M., Gold, J.A., … Arnold, L.E. (2005). What aspects of peer relationships are impaired in children with attention-deficit/hyperactivity disorder? *Journal of Consulting and Clinical Psychology, 73*(3), 411-423. doi:10.1037/0022-006x.73.3.411

Hoza, B., Vaughn, A., Waschbusch, D. A., Murray-Close, D., & McCabe, G. (2012). Can children with ADHD be motivated to reduce bias in self-reports of competence? *Journal of Consulting and Clinical Psychology, 80*(2), 245-254. doi:10.1037/a0027299

Huebner, E. S. (1991). Initial development of the student's life satisfaction scale. *School Psychology International, 12*(3), 231-240.

Huebner, S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment, 6*(1)*,* 149–158.

Huebner, S. (2001). *Manual for the Multidimensional Student's Life Satisfaction Scale*. Raleigh, SC: University of South Carolina. Retrieved from http://www.psych.sc.edu/faculty/Scott_Huebner

Huebner, S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, *66*(1), 3-33.

Huebner, E. S., Brantley, A., Nagle, R. J., & Valois, R. (2002). Correspondence between parent and adolescent ratings of life satisfaction for adolescents with and without mental disabilities. *Journal of Psychoeducational Assessment, 20*, 424-433.

Huebner, E. S., Suldo, S. M., Smith, L. C., & McKnight, C. G. (2004). Life satisfaction in children and youth: Empirical foundations and implications for school psychologists. *Psychology in the Schools, 4*(1), 81-92.

Huebner, S., & Gilman, R. (2002). An introduction to the multidimensional student's life satisfaction scale. *Social Indicators Research, 60*(1), 115-122.

Institute of Medicine Committee on Quality of Health Care in America. (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington, DC: National Academy Press.

James, A., & Prout, A. (2015). A new paradigm for the sociology of childhood? Proveance, promise and problems. In A. James & A. Prout (Eds.), *Constructing and reconstructing childhood* (Classic ed., pp. 6-28). London, UK: Routledge.

Jensen, P. S., Goldman, E., Offord, D., Costello, E. J., Friedman, R., Huff, B., Crowe, M., Amsel, L., …& Roberts, R. (2011). Overlooked and underserved: "Action signs" for identifying children with unmet mental health needs. *Pediatrics*, *128*(5), 970-979. doi:10.1542/peds.2009-0367.

Kaplan, S. (1995) The restorative benefits of nature: toward an integrative framework. *Journal of Environmental Psychology,15*, Page 169-182. Retrieved from: http://willsull.net/resources/KaplanS1995.pdf

Kellert, S. R., & Wilson, E. O. (Eds.). (1993). The biophilia hypothesis. Washington, DC: Island Press.

Kellett, M., Robinson, C., & Burr, R. (2005). Images of childhood. In V. Lewis, S. Fraser, S. Ding, M. Kellett, & C. Robinson (Eds), *Response to reviews of doing research with children and young people* (pp. 27-41). Thousand Oaks, CA: SAGE.

Kelly, J. E. (2011). *Assessment of life satisfaction in children as a means of prevention and identification of risks* (Unpublished doctoral dissertation, Pacific University). Retrieved from http://commons.pacificu.edu/spp/210

Kelly, M., Jones, S., Wilson, V., & Lewis, P. (2012). How children's rights are constructed in family-centered care: A review of the literature. *Journal of Child Health Care, 16*(2), 190-205. doi:10.1177/1367493511426421

Kendall, J., Hatton, D., Beckett, A., & Leo, M. (2003). Children's accounts of attention-deficit/hyperactivity disorder. *ANS Advances in Nursing Science, 26*(2), 114-130.

Kendall, J., & Shelton, K. (2003). A typology of management styles in families with children with ADHD. *Journal of Family Nursing, 9*(3), 257-280. doi:10.1177/1074840703255446

Kerig, P. K., Ludlow, A., & Wenar, C. (2012). *Developmental psychopathology* (6th ed.). Boston, MA: McGraw-Hill.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, *62*, 593-768.

Kildea, S., Wright, J., & Davies, J. (2011). Making sense of ADHD in practice: A stakeholder review. *Clinical Child Psychology and Psychiatry, 16*(4), 599-619.

Kirk, S. (2007). Methodological and ethical issues in conducting qualitative research with children and young people: A literature review. *International Journal of Nursing Studies, 44*, 1250-1260. doi:10.1016,j.inurstu.2006.08.015

Kok, F. M., Groen Y., Fuermaier, A. B. M., & Tucha, O. (2016). Problematic peer functioning in girls with ADHD: A systematic literature review. *PLoSONE 11*(11), e0165119. doi:10.1371/journal.pone.0165119

Koppitz, E. M. (1968). *Psychological evaluation of children's human figure drawings*. New York, NY: Grune & Stratton.

Koppitz, E. M. (1984). *Psychological evaluation of children's human figure drawings by middle school pupils.* Orlando, FL: Grune & Stratton.

Kuhlthau, K. A., Bloom, S., Van Cleave, J., Knapp, A. A., Romm, D., Klatka, K., …& Perrin, J.. (2011). Evidence for family-centered care for children with special health care needs: A systematic review. *Academic Pediatrics, 11*(2), 136-143.

Kuo, F. E., Faber Taylor, A., (2004). A potential natural treatment for Attention-Deficit/Hyperactivity Disorder: Evidence from a national study. *American Journal of Public Health, 94*(9), 1580-–1586.

Langberg, J. M., Dvorsky, M. R., & Evans, S. W. (2013). What specific facets of executive function are associated with academic functioning in youth with attention-deficit/hyperactivity disorder? *Journal of Abnormal Child Psychology*, *41*(7), 1145–1159. doi:10.1007/s10802-013-9750-z

Larson, K., Russ, S. A., Kahn, R. S., & Halfon, N. (2011). Patterns of comorbidity, functioning, and service use for U.S. children with ADHD. *Pediatrics, 127*(3), 1-9. doi:10.1542/peds.2010-0165

Law, G. U., Sinclair, S., & Fraser, N. (2007). Children's attitudes and behavioural intentions towards a peer with symptoms of ADHD: Does the addition of a diagnostic label make a difference? *Journal of Child Health Care, 11*(2), 98-111.

Linder, L. & Phinney, S. (2017/April). *"Good days" and "sick days" for children with cancer represented through their drawings*. Podium presentation at the Western Institute of Nursing (WIN) Conference, Denver CO.

Linnea, K., Hoza, B., Tomb, M., & Kaiser, N. (2012). Does a positive bias relate to social behavior in children with ADHD? *Behavior Therapy, 43,* 862-875. doi:10.1016/j.beth.2012.05.004

Ljusberg, A.-L. (2011), Children's views on attending a remedial class because of concentration difficulties. *Child: Care, Health and Development, 37*, 440–445. doi:10.1111/j.1365-2214.2010.01178.x

Loe, I. M., & Feldman, H. M. (2007). Academic and educational outcomes of children with ADHD. *Ambulatory Pediatrics, 7*(1), 82-90. doi:10.1016/j.ambp.2006.05.005

Louv, Richard. (2005) *Last child in the woods: saving our children from nature-deficit disorder* Chapel Hill, NC: Algonquin Books of Chapel Hill

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales.* Sydney, Australia: Psychology Foundation.

Lyons, M. D., Otis, K. L., Huebner, E. S., & Hills, K. J. (2014). Life satisfaction and maladaptive behaviors in early adolescents. *School Psychology Quarterly*, *29*(4), 553-566. doi:10.1037/spq0000061.

MacDonald, J. M., Piquero, A. R., Valois, R. F., & Zullig, K. J. (2005). The relationship between life satisfaction, risk-taking behaviors, and youth violence. *Journal of Interpersonal Violence, 20*(11), 1495-1518. doi:10.1177/0886260505278718

Mahone, E. M. (2012). Neuropsychiatric differences between boys and girls with ADHD. *Psychiatric Times, 29*(10), 1-7. Retrieved from http://www.psychiatrictimes.com/articles/neuropsychiatric-differences-between-boys-and-girls-adhd/page/0/1?pageNumber=4

Malchiodi, C. A. (1998). *Understanding children's drawings.* New York, NY: The Guilford Press.

Maoz, H., Goldstein, T., Goldstein, B. I., Axelson, D. A., Fan, J., Hickey, M. B., …& Birmaher, B. (2014). The effects of parental mood on reports of their children's psychopathology. *Journal of the American Academy of Child & Adolescent Psychiatry, 53*(10), 1111-1122. doi.org/10.1016/j.jaac.2014.07.005

Martin, K., & Huebner, E. S. (2007). Peer victimization and prosocial experiences and emotional well-being of middle school students. *Psychology in the Schools, 44*(2), 199-208. doi:10.1002/pits.20216.

Martin, K., Huebner, E. S., & Valois, R. F. (2008). Does life satisfaction predict victimization experiences in adolescence? *Psychology in the Schools, 45*(8), 705714. doi:10.1002/pits.20336.

Massetti, G. M., Lahey, B. B., Pelham, W. E., Loney, J., Ehrhardt, A., Lee, S. S., & Kipp, H. (2008). Academic achievement over eight years among children who met modified criteria for Attention-deficit/Hyperactivity Disorder at 4–6 years of age. *Journal of Abnormal Child Psychology*, *36*(3), 399–410. doi:10.1007/s10802-007-9186-4

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: SAGE.

McCullough, G., & Huebner, E. S. (2003). Life satisfaction of adolescents with learning disabilities and normally achieving adolescents. *Journal of Psychoeducational Assessment, 21*, 311-324. doi:10.1177/073428290302100401

McCullough, G., Huebner, E. S., & Laughlin, J. E. (2000). Life events, self-concept, and adolescents positive subjective well-being. *Psychology in the Schools, 37*(3), 281-290.

McLeod, J. D., Pescosolido, B. A., Takeuchi, D. T., & White, T. F. (2004). Public attitudes toward the use of psychiatric medications for children. *Journal of Health and Social Behavior, 45*(1), 53-67.

Mikami, A.Y., Calhoun, C. D., & Abikoff, H. B. (2010). Postitive illusory bias and response to behavioral treatment among children with attention- deficit/hyperactivity disorder.

Journal of Clinical Child & Adolescent Psychology, 39(3), 373-385. doi:10.1080/15374411003691735.

Mikami, A. Y., & Lorenzi, J. (2011). Gender and conduct problems predict peer functioning among children with Attention-Deficit/Hyperactivity Disorder. *Journal of Clinical Child and Adolescent Psychology*, *40*(5), 777–786. doi:10.1080/15374416.2011.597089

Millichap, J. G. (2008). Etiologic classification of attention-deficit/hyperactivity disorder. *Pediatrics*, *121*(2), e358-365. doi10.1542/peds.2007-1332

Mrug, S., Molina, B., Hoza, B., Gerdes, A. C., Hinshaw, S. P., Hechtman, L., & Arnold, L. E. (2012). Peer rejection and friendships in children with attention-deficit/hyperactivity disorder: Contributions to long-term outcomes. *Journal of Abnormal Child Psychology, 40*, 1013-1026.

Mueller, A. K., Kiermaier, A. B., Koerts, J., & Tucha, L. (2012). Stigma in attention deficit hyperactivity disorder. *ADHD Attention Deficit Hyperactivity Disorder,* 4(3), 101-114. doi:10.1007/s12402-012-0085-3.

Murray-Close, D., Hoza, B., Hinshaw, S. P., Arnold, L. E., Swanson, J., Jensen, P. S., …& Wells, K. (2010). Developmental processes in peer problems of children with ADHD in the MTA Study: Developmental cascades and vicious cycles. *Development and Psychopathology*, *22*(4), 785–802. doi:10.1017/S0954579410000465

Nadeau, J. M., Jacob, M. L., Keene, A. B., Alderman, S. M., Hacker, L. E., Cavitt, M. A., … & Storch, E. A. (2015). Correlates and mediators of life satisfaction among youth with Attention-Deficit/Hyperactivity Disorder. *Children's Health Care, 44,* 169-182. doi:10.1080/02739615.2014.896215

National Institute for Children's Health Quality (NICHQ), American Academy of Pediatrics, McNeil. (2002). *Vanderbilt Assessment Scales.* Retrieved from http://www.nichq.org/childrens-health/adhd/resources/vanderbilt-assessment-scales#sthash.NwujGOdH.dpuf

National Institute of Mental Health. (1997). *Computerized Diagnostic Interview Schedule for Children, IV (NIMH C-DISC IV).* New York: Author, Columbia University.

National Institute of Nursing. (2011). *Bring science to life: NINR strategic plan*. Retrieved from https://www.ninr.nih.gov/sites/www.ninr.nih.gov/files/ninr-strategic-plan-2011.pdf

National Institute of Nursing. (2014). *Supporting American's health through nursing science*. Retrieved from http://www.aacn.nche.edu/government-affairs/AACNNR.pdf.

Normand, S., Schneider, B. H., Lee, M. D., Masionneuve, M. F., Keuhn, S. M., & Robaey, P. (2011). How do children with ADHD (mis) manage their real-life dyadic friendships? A multi-method investigation. *Journal of Abnormal Child Psychology, 39*, 293-305. doi:10.1007/s10802-010-9450-x

Norvilitis, J. M., Scime, M., & Lee, J. S. (2002). Courtesy stigma in mothers of children with attention-deficit hyperactivity disorder: A preliminary investigation. *Journal of Attention Disorders, 6*(2), 61-68.

O'Driscoll, C., Heart, C., Hennessy, E., & McKeague, L. (2012). Explicit and implicit stigma towards peers with mental health problems in childhood and adolescence. *The Journal of Child Psychology and Psychiatry, 53*(10), 1054-1062.

Owens, J. S., Goldfine, M. E., Evangelista, N. M., Hoza, B., & Kaiser, N. M. (2007). A critical review of self- perceptions and the positive illusory bias in children with ADHD. *Clinical Child and Family Psychological Review, 10,* 335–351. doi:10.1007/s10567-007-0027-3

Park, N. (2005). Life satisfaction among Korean children and youth. *School Psychology International, 26*(2), 209-223. doi:10.1177/0143034305052914

Park, N., Huebner, E. S., Laughlin, J. E., Valois, R. F., & Gilman, R. (2004). A cross-cultural comparison of the dimensions of child and adolescent life satisfaction reports. *Social Indicators Research, 66*(1), 61-79.

Patton, M.Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: SAGE.

Pediatrics. (2012). *Patient- and family-centered care and the pediatrician's role.* Retrieved from www.pediatrics.org/cgi/doi/10.1542/peds.2011-3084

Perou, R., Bitsko, R. H., Blumberg, S. J., Pastor, P., Ghandour, R. M., Gfroerer, J. C., …& Huang, L. N. (2013). Mental health surveillance among children: United States, 2005-2011. *MMWR Surveill Summ*, *62*(2), 1-3.

Pescosolido, B. A. (2007). Culture, children, and mental health treatment: Special section on the national stigma study-children. *Psychiatric Services, 58*(5), 611-612.

Pescosolido, B. A., Perry, B. L., Martin, J. K., McLeod, J. D., & Jensen, P. S. (2007). Stigmatizing attitudes and beliefs about treatment and psychiatric medications for children with mental illness. *Psychiatric Services, 58*(5), 613-618.

Pliszka, S., & AACAP Work Group on Quality Issues. (2007). Practice parameter for the assessment and treatment of children and adolescents with attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(7), 894-921. doi:10.1097/chi.0b013e318054e724

Porter, S. C, Guo, C. Y., Molino, J., Toomey, S. L., & Chan, E. (2012). The influence of task environment and health literacy on the quality of parent-reported ADHD data. *Applied Clinical Information*, *3*(1), 24-37. doi:10.4338/ACI-2011-10-RA-0062.

Posserud, M. B., Ullebø, A. K., Plessen, K. J., Stormark, K. M., Gillberg, C., & Lundervold, A. J. (2014). Influence of assessment instrument on ADHD diagnosis. *European Child & Adolescent Psychiatry, 23*(4), 197-205. doi:10.1007/s00787-013-0442-6

Pressman, L. J., Loo, S. K., Carpenter, E. M., Asarnow, J. R., Lynn, D., McCracken, J. T., … & Smalley, S. L. (2006). Relationship of family environment and parental psychiatric diagnosis to impairment in ADHD. *Journal of the American Academy of Child & Adolescent Psychiatry, 45*(3), 346-354. doi:10.1097/01.chi.0000192248.61271.c8.

Proctor, C. L., Linley, P. A., & Maltby, J. J. (2009). Youth life satisfaction: A review of the literature. *The Journal of Positive Psychology, 4*(1), 128-144. doi:10.1007/s10902-008-9110-9

Ruland, T. (2012, Jan. 9). *The hidden costs of ADHD.* Retrieved from http://neatoday.org/2012/01/09/the-hidden-costs-of-adhd/

Sandelowski, M. (1995). Qualitative analysis: What it is and how to begin. *Research in Nursing & Health, 18*, 371-375.

Sandelowski, M. (2000). Whatever happened to qualitative description? *Res. Nurs. Health, 23*, 334–340. doi:10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Sanders, L. M., Zacur, G., Haecker, T., & Klass, P. (2004). Number of children's books in the home: An indicator of parent health literacy. *Ambulatory Pediatrics, 4*(5), 424-428.

Sawatzky, R., Ratner, P. A., Johnson, J. L., Kopec, J. A., & Zumbo, B. D. (2010). Self-reported physical and mental health status and quality of life in adolescents: A latent variable

mediation model. *Health and Quality of Life Outcomes*, *8*(1), 17. doi:10.1186/1477-7525-8-17

Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14. doi:10.1037/0003-066X.55.1.5

Seligson, J., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the Brief Multidimensional Students' Life Satisfaction Scale. *Social Indicators Research, 61*, 121-145. doi:10.1023/A:1021326822957

Sheftall, A.H., Asti, L., Horowitz, L.M., Felts, A., Fontanella, C.A., Campo, J.V., & Bridge, J.A. (2016). Suicide in Elementary School-Aged Children and Early Adolescents. *Pediatrics*, *138*(4):e20160436 originally published online September 19, 2016

Singh, I., Kendall, T., Taylor, C., Mears, A., Hollis, C., Batty, M., & Kennan, S. (2010). Young people's experience of ADHD and stimulant medication: A qualitative study for the NICE guidelines. *Child and Adolescent Health, 15*(4), 186-192. doi:10./1111/j.1475-3588.2010.00565.x

Small, M. L. (2011). How to conduct a mixed method study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, *37*, 57-86. Retrieved from www.annualreviews.org

Staller, J., & Faraone, S. V. (2006). Attention-deficit hyperactivity disorder in girls: Epidemiology and management. *CNS Drugs, 20*(2), 107-123. doi:1172-7047/06/0002-0107/$39.95/0

Storebo, O. J., Skoog, M., Damm, D., Thomsen, P. H., Simonsen, E., & Gluud, C. (2011). Social skills training for attention deficit hyperactivity disorder (ADHD) in children aged 5 to 18 years. *Cochrane Database of Systematic Reviews, 12*.

doi:10.1002/14651858.CD008223.pub2.

Strine, T. W., Lesesne, C. A., Okoro, C. A., McGuire, L. C., Chapman, D. P., Balluz, L. S., & Mokdad, A. H. (2006). Emotional and behavioral difficulties and impairments in everyday functioning among children with a history of attention-deficit/hyperactivity disorder. *Preventing Chronic Disease, 3*(2), 1–10. Retrieved from http://www.cdc.gov/issues/2006/apr/05_0171.htm

Suldo, S. M., Frank, M. J., Chappel, A. M., Albers, M. M., & Bateman, L. P. (2014). American high school students' perceptions of determinants of life satisfaction. *Social Indicators Research, 118,* 485-514. doi:10.1007/s11205-013-0436-2

Suldo, S. M., & Huebner, E. S. (2004). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators Research*, *66*, 165-195. doi:10.1023/B:SOCI.0000007498.62080.1e

Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research, 78*(2), 179-203. doi:10.1007/s11205-005-8208-2

Suldo, S. M., Riley, K. N., & Shaffer, E. J. (2006). Academic correlates of children and adolescents' life satisfaction. *School Psychology International, 27,* 567-582. doi:10.1177/0143034306073411

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review, 37*(1), 52-68.

Suldo, S. M., Shaffer, E. J., & Riley, K. N. (2008). A social-cognitive-behavioral model of academic predictors of adolescents' life satisfaction. *School Psychology Quarterly, 23*(1), 56-69. doi:10.1037/1045-3830.23.1.56

Sun, R. C. F., & Shek, D. T. L. (2010). Life satisfaction, positive youth development, and problem behaviour among Chinese adolescents in Hong Kong. *Social Indicators Research*, *95*(3), 455–474. doi:10.1007/s11205-009-9531-9

Swanson, E. N., Owens, E. B., & Hinshaw, S. P. (2012). Is the positive illusory bias illusory? Examining discrepant self-perceptions of competence in girls with ADHD. *Journal of Abnormal Child Psychology, 40*, 987-998.

Theule, J., Wiener, J., Tannock, R., & Jenkins, J. M. (2013). Parenting stress in families of children with ADHD: A meta-analysis. *Journal of Emotional and Behavioral Disorders, 21*(1), 3-17. doi:10.1177/1063426610387433

Tielsch, A. H., & Allen, P. J. (2005). Listen to them draw: Screening children in primary care through the use of human figure drawings. *Pediatric Nursing, 31*(4), 320-327. https://www.ncbi.nlm.nih.gov/pubmed/16229131?dopt=Abstract

Tischler, C. L., & Reiss, N. S. (2011). Pediatric drug-trial recruitment: enticement without coercion. *Pediatrics, 127*(5), 949-954. doi:10.1542/peds.2010-2585

Tudge, J. R. H., Mokrova, I., Hatfield, B., & Karnik, R. B. (2009). Uses and misuses of Bronfenbrenner's bioecological theory of human development. *Journal of Family Theory and Review, 1*(4), 198-210.

Uprichard, E. (2008). Children as "being and becomings": Children, childhood and temporality. *Children & Society*, *22*(4), 303-313.

United Nations Treaty Collection. (n.d.). *Multilateral treaties deposited with the Secretary-General.* Retrieved from https://treaties.un.org/Pages/ParticipationStatus.aspx

United States Department of Health and Human Services; U.S. Department of Education; U.S. Department of Justice. *Report of the Surgeon General's Conference on Children's Mental*

Health: A National Action Agenda. Washington (DC): U.S. Department of Health and Human Services; 2000. Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK44233/

U.S. Department of Health and Human Services, Code of Federal Regulations, Title 45, Part 46, Subpart D. (2009). *Protection for children involved as subjects in research.* Retrieved from https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr46/index.html#subparta

Valois, R. F., Zullig, K. J., Huebner, E. S., & Drane, J. W. (2004). Life satisfaction and suicide among high school adolescents. *Social Indicators Research, 66*, 81-105. doi:10.1023/B:SOCI.0000007499.19430.2f

Valois, R. F., Zullig, K. J., Huebner, E. S., Kammermann, S. K., & Drane, J. W. (2002). Association between life satisfaction and sexual risk-taking behaviors among adolescents. *Journal of Child and Family Studies, 11*(4), 427-440. doi:10.1023/A:1020931324426

Visser, S. N., Danielson, M. L., Bitsko, R. H, Holbrook, J. R., Kogan, M. D., Ghandour, R. M., …& Blumberg, S. J. (2014). Trends in the parent-report of health care provider-diagnosed and medicated attention-deficit/hyperactivity disorder: United States, 2003–2011. *Journal of the American Academy of Child & Adolescent Psychiatry*, *53*(1), 34-46. doi:10.1016/j.jaac.2013.09.001

Visser, S. N., Bitsko, R. H., Danielson, M. L., Ghandour, R. M, Blumberg, S. J., Schieve, L. A., …& Cuffe, S. P. (2015a). Treatment of attention deficient/hyperactivity disorder among children with special health care needs. *Journal of Pediatrics*, *166*(6), 1423-1430. doi:10.1016/j.jpeds.2015.02.018.

Visser, S. N., Zablotsky, B., Holbrook, J. R., Danielson, M. L., & Bitsko, R. H. (2015b). Diagnostic experiences of children with attention-deficit/hyperactivity disorder. *National*

Health Statistics Reports, 81. Hyattsville, MD: National Center for Health Statistics. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr081.pdf

Walker, J. S., Coleman, D., Lee, J., Squire, P. N., & Friesen, B. J. (2008). Children's stigmatization of childhood depression and ADHD: Magnitude and demographic variation in a national sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 47*, 912–920. doi:10.1097/CHI.0b013e318179961a.

Walkup, J. T., Stossel, L., & Rendleman, R. (2014). Beyond rising rates: Personalized medicine and public health approaches to the diagnosis and treatment of attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 53*(1), 13-16.

Wehmeier, P. M., Schacht, A., & Barkley, R. A. (2010). Social and emotional impairment in children and adolescents with ADHD and the impact on quality of life. *Journal of Adolescent Health, 46*, 209-217. doi:10.1016/j.adohealth.2009.09.009

Wessel, L. A. (2016). Shifting gears: Engaging nurse practitioners in prescribing time outdoors. *The Journal for Nurse Practitioners, 13*(1), 89-96. doi:10.1016/j.nurpra.2016.06.013

Weiss, B. D., Mays, M. Z., Martz, W., Castro, K. M., DeWalt, D. A., Pignone, M. P… & Hale, F.A. (2005). Quick assessment of literacy in primary care: The newest vital sign. *Annals of Family Medicine*, *3*(6), 514-522.

Wendler, D. (2008). The assent requirements in pediatric research. In E. J. Emanuel, C. Grady, R. A. Crouch, R. K. Lie, F. G. Miller, & D. Wendler (Eds.), *The Oxford Textbook of Clinical Research Ethics* (pp. 661-672). New York, NY: Oxford University Press.

Wesson, M., & Salmon, K. (2001). Drawing and showing: Helping children to report emotionally laden events. *Applied Cognitive Psychology*, *15*, 301-320.

doi:10.1002/acp.706.

World Health Organization. (n.d.). *Constitution of WHO: Principles.* Retrieved from http://www.who.int/about/mission/en/

Wiener, J., Malone, M., Varma, A., Markel, C., Biondic, D., Tannock, R., & Humphries, T. (2012). Children's perceptions of their ADHD symptoms: Positive illusions, attributions, and stigma. *Canadian Journal of School Psychology, 27*(3), 217-242. doi:10.1177/0829573512451972.

Wolraich, M., Brown, L., Brown, R. T., DuPaul, G., Earls, M., Feldman, H. M., …& Visser, S. (2011). ADHD: Clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficient/hyperactivity disorder in children and adolescents. *Pediatrics*, *128*(5), 1007-1022. doi:10.1542/peds.2011-2654.

Wolraich, M. L., Feurer, I., Hannah, J. N., Pinnock, T. Y., & Baumgaertel, A. (1998). Obtaining systematic teacher reports of disruptive behavior disorders utilizing DSM-IV. *Journal of Abnormal Child Psychology*, *26*(1), 141– 152.

Wolraich, M. L., Lambert, W., Doffing, M. A., Bickman, L., Simmons, T., & Worley, K. (2003). Psychometric properties of the Vanderbilt ADHD diagnostic parent rating scale in a referred population. *Journal of Pediatric Psychology*, *28*(8), 559-568. doi:10.1093/jpepsy/jsg046

Workgroup, B. F. P. S., & Committee on Practice and Ambulatory Medicine. (2017). Recommendations for preventive pediatric health care. *Pediatrics*, e20170254.

World Health Organization. (n.d.). Constitution of WHO: principles. Retrieved from http://www.who.int/about/mission/en/

Yaghmaie, P., Koudelka, C. W., & Simpson, E. L. (2013). Mental health comorbidity in atopic dermatitis. *Journal of Allergy and Clinical Immunology, 131*(2), 428-433. doi:10.1016/j.jaci.2012.10.041

Yao, Y. S., Chang, W. W., Jin, Y. L., Chen, Y., He, L. P., & Zhang, L. (2014). Life satisfaction, coping, self-esteem and suicide ideation in Chinese adolescents: A school-based study. *Child Care Health and Development, 40*(5), 747-752. doi:10.1111/cch.12142.

Yin, H. S., Johnson, M., Mendelsohn, A. L., Abrams, M. A., Sanders, L. M., & Dreyer, B. P. (2009). The health literacy of parents in the United States: A nationally representative study. *Pediatrics, 124*(5), S289 –S298.

Young, S., & Ross, R. R. (2007). *R&R2 for ADHD youths and adults: A prosocial competence training program*. Ottawa, Canada: Cognitive Centre of Canada.

Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), *Applications of social research methods to questions in information and library science* (pp. 308-319). Westport, CT: Libraries Unlimited. Zullig, K. J., Valois, R. F., Huebner, E. S., Oeltmann, J. E., & Drane, J. W. (2001). Relationship between perceived life satisfaction and adolescent's substance abuse. *Journal of Adolescent Health*, *29*, 279-288.

APPENDIX A: RECRUITMENT FLIER

IRB#: 15771

What is Life Like for Children with ADHD?

Did you know that most of our information about children with ADHD comes from adults?

In this study children with ADHD are the experts!

Knowing how children with ADHD experience life is important to meeting their needs.

WHO can take part in this study*?*

Children (7 to 11 years old) with a diagnosis of ADHD (and a parent)

WHAT will you have to do?

Agree to meet with the researcher for less than an hour

Children will do three (3) things:	Parent will do three (3) things:
↓ Answer question about books/reading ↓ Draw and then talk about their picture ↓ Complete a short survey with the researcher	↓ Complete a short information page about their child ↓ Complete an ADHD symptom form ↓ Take a really short health literacy quiz

WHEN & WHERE?

Set up with each child and parent at a time and place you want.

Each child/parent will receive a thank you gift!

Want to know more?

Please contact **Patty Barfield** via phone or email to learn more.

You can also contact Martha Driessnack PhD, PPCNP-BC at OHSU School of Nursing (503) 418-1271

Thank You!

APPENDIX B: TELEPHONE SCRIPT

IRB Approved: 6/3/2016

Protocol: Telephone Script

Hello and thank you for calling. My name is Patty Barfield. I am a psychiatric mental health nurse practitioner and a nurse researcher.

I am recruiting voluntary participants for my dissertation study called "Life Satisfaction in Children with ADHD: A Mixed-Methods Study." The purpose of this research is to better understand the life experience of children with ADHD.

Participants for this study are *children*, *age 7 to 11*, who have a diagnosis of *ADHD* and one *parent* who agrees to her/his child's participation, and who is willing to provide information her/himself.

During this phone call I want to see if you are interested and if you and your child might be eligible to participate. If you agree, I will ask you some questions to see if you and your child can be in the study. If it looks like you and your child might be eligible, I will ask you to schedule a meeting where I will discuss the study with you and your child in more detail, and you can decide if you want to participate.

I expect this phone call will take about five (5) minutes.

Before we go on to the questions, let me tell you a little more about the research process and your rights as a research participant. The main risk of answering my questions today is loss of confidentiality. I will do my best to keep your information confidential by using codes instead of actual names, and storing information in secured or password protected files. The record of this phone call will be logged and kept in a secure file until the end of the study and then it will be destroyed.

Please know, you don't have to answer the questions, and you can choose to stop at any time without penalty. If you have questions about the study, you can call me at the number you just dialed (208) 739-8683. If you have questions about your rights as a research participant or research-related injuries, you can call the OHSU Research Integrity Office at 503-494-7887.

May I go ahead with the eligibility questions?

If no, thank the individual and end the call.

If yes:

I'm going to give a list of things that would PROHIBIT your child from being in the study. Please do not indicate if these things apply to your child until the end of the list. When I'm finished with the list, feel free to ask questions or tell me if your child does NOT have any of the following:

A diagnosis of schizophrenia, bipolar disorder, autism, and/or intellectual disability

Child is not between ages 7 and 11

Child has not been diagnosed with ADHD

If any of those conditions are true for your child, she/he cannot participate in the study. Does it look like your child might still be eligible?
If no: Thank you for your time.

APPENDIX C: IRB APPROVAL LETTER

June 6, 2016

Dear Investigator:

On 6/03/2016, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Life Satisfaction in Children with ADHD: A Mixed-Methods Study
Principal Investigator:	Martha Driessnack
IRB ID:	STUDY00015771
Funding:	Name: Sigma Theta Tau International, PPQ #: 1009196, Funding Source: Beta Psi Chapter
IND, IDE, or HDE:	None
Documents Reviewed:	• Child MSLSS Response • Assent • Parent Consent • Flyer • Memo.per request • NVS.ques.docx • Child MSLSS Instructions • Protocol - Minimal Risk.pdf • Data Matrix 1 Demographic • Parent Data Sheet • Parent ADHD Rating Shet • Data Matrix 2 QL/QN • DTC Drawing Directives for Children Requests Prompts Probes.docx • Telephone Script

The IRB granted final approval on 6/3/2016. The study is approved until 6/2/2017.

Review Category: Expedited Categories #6 & 7

Copies of all approved documents are available in the study's **Final** Documents (far right column under the documents tab) list in the eIRB.

Ongoing IRB submission requirements:

- Six to ten weeks before the expiration date, you are to submit a continuing review to request continuing approval.
- Any changes to the project must be submitted for IRB approval prior to implementation.
- Reportable New Information must be submitted per OHSU policy.

- You must submit a continuing review to close the study when your research is completed.

Guidelines for Study Conduct

In conducting this study, you are required to follow the guidelines in the document entitled, "Roles and Responsibilities in the Conduct of Research and Administration of Sponsored Projects," as well as all other applicable OHSU IRB Policies and Procedures.

Requirements under HIPAA

If your study involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the HIPAA and Research website and the Information Privacy and Security website for more information.

IRB Compliance

The OHSU IRB (FWA00000161; IRB00000471) complies with 45 CFR Part 46, 21 CFR Parts 50 and 56, and other federal and Oregon laws and regulations, as applicable, as well as ICH-GCP codes 3.1-3.4, which outline Responsibilities, Composition, Functions, and Operations, Procedures, and Records of the IRB.

Sincerely,

The OHSU IRB Office

APPENDIX D: PARENTAL CONSENT

IRB Approved: 6/3/2016
Approval Expires: 6/2/2017

My Life by me C#00_____

OREGON HEALTH & SCIENCE UNIVERSITY

IRB#: 15771

Research Consent and Authorization Form

TITLE: Life Satisfaction in Children with Attention Deficit Hyperactivity Disorder (ADHD): A Mixed-Methods Study

PRINCIPAL INVESTIGATOR: Martha Driessnack, PhD, PPCNP-BC (503) 418-1271

CO-INVESTIGATOR:
Patricia "Patty" Barfield, PMHNP-BC (208) 739-8683
PhD Candidate

FUNDED BY:
Sigma Theta Tau International (STTI), Beta Psi Chapter, Naomi Ballard Nursing Research Award

PURPOSE:
In this document, "You/your" means you the parent and the "child" refers to your child. You have been invited to be in this research study because you are the parent of a child with Attention Deficit Hyperactivity Disorder (ADHD). Your child is being invited into this research study because we are interested in learning from children who have ADHD. The purpose of this study is to learn how children with ADHD think about and evaluate their own lives.

This study requires a single meeting lasting less than one hour at a mutually agreed upon place, where you and your child feel comfortable and there is some privacy.

It is anticipated that 20-50 children and 20-50 parents will be enrolled in this study.

PROCEDURES:
You will be asked to do three things. First, you will fill out a short form about your child and common mental health/medical conditions. Second, you will fill out a survey about your child's ADHD symptoms and functioning. Last, you will read a nutritional label and answer six (6) questions. Your child will be asked to do three things too. First, s/he will be asked one question about books and reading. Second, s/he will be asked to draw one picture

C#00_____

about their life and then tell the researcher about it. Last, s/he will do a survey with the researcher about family, friends, school, living environment, and self.

Review the study information and consent/assent forms.	Child	Parent
	***Assent** (10-15 min)	***Consent**
Data Collection	Begin interview	Complete paperwork
	Talk about/Answer one question about children's books (5 min)	Demographic/ADHD-related form (9-items) (5 min)
	Draw one picture and tell the researcher about it (15 min)	Fill out the Vanderbilt ADHD Rating Scale (55-items) (15 min)
	Answer questions on the Multidimensional Student Life Satisfaction Scale (40-items) (15 min)	Read/answer questions about using health information (6-items) (10 min)

During this study your child's interviews will be audiotaped. The audiotape will be turned on at the beginning of the interview and remain on until the end of the interview. The duration of the recording session will be less than one-hour. No voice recording will be kept or released. The audio recording will be transcribed into a written transcript and used for educational and research publication purposes. The audio recording will be deleted after the written transcript is reviewed for accuracy by the co-investigator. No audio-recording will be released.

RISKS AND DISCOMFORTS: The risk of emotional upset is possible when individuals answer questions and/or talk about their personal lives. Some of these questions may seem very personal or embarrassing. They may upset you or your child. You and your child may refuse to answer questions you or your child do not wish to answer. If you or your child become upset we will help you find a counselor in your community.

BENEFITS: You and your child will not personally benefit from being in this study. However, by participating, you may help us learn how to better understand and care for children with ADHD in the future.

ALTERNATIVES: You may choose not to be in this study.

CONFIDENTIALITY: We will take steps to keep your personal information and your child's personal information confidential, but we cannot guarantee total privacy. To help protect your and your child's information the following steps will be taken:

C#00_____

- The transcription for the audio recordings will occur in the co-investigator's private office. The co-investigator will review the transcription for accuracy and then delete the audio file. The written transcript will be assigned a code for identification purposes and stored in a locked file in the co-investigators office.
- All identifiable information (names) will be kept separate from all other information in a locked file inside the PI's locked office at OHSU. The data collection sheets and information for you and your child will be given an identification code. These coded forms will be contained in a locked file inside the co-investigators office. Electronic data will be stored on an encrypted computer.
- No medical/mental health records will be accessed or reviewed.

The investigators, study staff, and others at OHSU may use the information we collect and create about you and your child in order to conduct and oversee this research study.

We may release this information to others outside of OHSU who are involved in conducting or overseeing research, including

- Gail Houck, PhD PMHNP-BC, Dissertation Committee Member, located at the University of Washington.

- The Office for Human Research Protections, a federal agency that oversees research involving humans

Those listed above may also be permitted to review and copy you and your child's records.

We will not release information about you and your child to others not listed above, unless required or permitted by law. We will not use your name or your child's name for publication or publicity purposes, unless we have your special permission.

However, if we learn about abuse of a child or that you intend to harm yourself or someone else, or about certain communicable diseases, we will report that to the proper authorities. Under Oregon law, suspected child or elder abuse must be reported to appropriate authorities.

When we send information outside of OHSU, they may no longer be protected under federal or Oregon law. In this case, your information could be used and re-released without your permission.

We may continue to use and disclose your information as described above indefinitely.

C#00_____

COMMERCIAL DEVELOPMENT: Information including any audiotapes about you or your child or obtained from you or your child in this research may be used for commercial purposes, such as making a discovery that could, in the future, be patented or licensed to a company, which could result in a possible financial benefit to that company, OHSU, and its researchers. There are no plans to pay you if this happens. You will not have any property rights or ownership or financial interest in or arising from data that may result from your or your child's participation in this study. Further, you will have no responsibility or liability for any use that may be made of your information.

COSTS: There will be no cost to you or your insurance company to participate in this study. You and your child will each receive a thank you gift for your participation in this study. Parents will receive a $10 AMAZON gift-card and children will receive a pack of art-supplies valued at $10.00. These gifts will be given to all participants who participate in full or partial data collection.

LIABILITY: If you believe you have been injured or harmed as a result of participating in this research and require treatment, contact Martha Driessnack, PhD, PPCNP-BC at 503-418-1271

If you are injured or harmed by the study procedures, you will be treated. OHSU and the funder do not offer any financial compensation or payment for the cost of treatment if you are injured or harmed as a result of participating in this research. Therefore, any medical treatment you need may be billed to you or your insurance. However, you are not prevented from seeking to collect compensation for injury related to negligence on the part of those involved in the research. Oregon law (Oregon Tort Claims Act (ORS 30.260 through 30.300)) may limit the dollar amount that you may recover from OHSU or its caregivers and researchers for a claim relating to care or research at OHSU, and the time you have to bring a claim. If you have questions on this subject, please call the OHSU Research Integrity Office at (503) 494-7887.

PARTICIPATION:
If you have any questions, concerns, or complaints regarding this study now or in the future, contact Martha Driessnack PhD PPCNP-BC (503) 418-1271 or Patty Barfield at (208) 739-8683.

This research is being overseen by an Institutional Review Board ("IRB"). You may talk to the IRB at (503) 494-7887 or irb@ohsu.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.

C#00_____

- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get more information or provide input about this research.

You may also submit a report to the OHSU Integrity Hotline online at https://secure.ethicspoint.com/domain/media/en/gui/18915/index.html or by calling toll-free (877) 733-8313 (anonymous and available 24 hours a day, 7 days a week).

- Your participation and your child's participation in this study is voluntary.
- You and your child do not have to join this or any research study
- If you do join the study and choose to allow your child to join this study and later change your mind, you and your child have the right to quit at any time and without consequence to you or your child. If you or your child choose not to join any or all parts of this study, or if you or your child withdraw early from any or all parts of the study, there will be no penalty or loss of benefits to which you or your child are otherwise entitled, including being able to receive health care services or insurance coverage for services. Talk to the investigator if you or your child want to withdraw from the study
- If you or your child decide you no longer want to participate in this research, we will remove your name, your child's name and any other identifiers from your and your child's information, but the material will not be destroyed and we will continue to use it for research.

You or your child may be removed from the study if the investigator or funder stops the study, and/or you or your child do not follow study instructions.

We will give you any new information during the course of this research study that might change the way you feel about being in the study.

SIGNATURES:

Your signature in the Subject Signature line below indicates that you have read this entire form and that you agree to be in this study. If you also agree to allow your child to participate in this research, please also include the name of your child and your relationship to the child in addition to your signature and date in the Parent/Guardian signature line.

We will give you a copy of this signed form. Thank You!

IRB Approved: 6/3/2016
Approval Expires: 6/2/2017

C#00_____

Subject Printed Name	Subject Signature	Date

Name of Child

Relationship to Child	Parent/Guardian Signature	Date

Person Obtaining Consent Printed Name	Person Obtaining Consent Signature	Date

APPENDIX E: CHILD ASSENT

IRB Approved: 6/3/2016
Approval Expires: 6/2/2017

My Life by me C#00_____

OREGON HEALTH & SCIENCE UNIVERSITY

Child Assent Form

IRB#15771

Protocol Approval Date:_____

TITLE: Life Satisfaction in Children with ADHD: A Mixed-Methods Study

PRINCIPAL INVESTIGATOR: Martha Driessnack PhD PPCNP-BC (503) 418-1271

CO-INVESTIGATORS: Patricia "Patty" Barfield PMHNP-BC (208) 739-8683

This research study was explained to me in a way that I understand. I also know that this study will help researchers learn more about kids with ADHD. To be sure that I know what is going to happen I will be asked:

1. To explain what I will do and what will happen in this study.
2. If I have any questions or want to know anything else about this study.
3. To explain some of the good and bad things that might happen to me if I enter this study.

I have thought about being in this study.

I have asked and got answers to my questions.

I agree to be in this study. I know that I don't have to agree to be in the study.

Even though I agree to be in it now, I know I may not want to later on and can ask to stop being in the study.

I know that I may talk with my parents about not being in this study at any time.

Name/signature:_____ Date:_____

Document Control No.: IRB-CAS-01
Original Date: 12/04/2002; Revision Date: 3/7/2012

APPENDIX F: THE MULTIDIMENSIONAL STUDENT LIFE SATISFACTION SCALE

For this part I want you to think about how your life has been going most of the time.

Then I will read you some questions about your family, friends, school, where you live, and yourself.

There are four possible answers:
1) = NEVER 2) = SOMETIMES (a little) 3) = OFTEN (a lot) or 4) = ALMOST ALWAYS (always).

For example, if I read, "my family watches TV during dinner" you could answer "never, sometimes, often, or almost always."

If you think these answers do not work or make sense, you can tell me.

It is important to know what you REALLY think, so please answer the question the way you really feel, not how you think you should. This is NOT a test. There are no wrong answers.

You may ask me questions at any time.

		1 NEVER	2 SOMETIMES	3 OFTEN	4 ALMOST ALWAYS
1	My friends are nice to me				
2	I am fun to be around				
3	I feel bad at school				
4	I have a bad time with my friends				
5	There are lots of things I can do well				
6	I learn a lot at school				
7	I like spending time with my parents				
8	My family is better than most				
9	There are many things about school I don't like				
10	I think I am good looking				
11	My friends are great				
12	My friends will help me if I need it				
13	I wish I didn't have to go to school				
14	I like myself				
15	There are lots of fun things to do where I live				
16	My friends treat me well				
17	Most people like me				
18	I enjoy being at home with my family				
19	My family gets along well together				
20	I look forward to going to school				
21	My parents treat me fairly				
22	I like being in school				
23	My friends are mean to me				
24	I wish I had different friends				
25	School is interesting				
26	I enjoy school activities				
27	I wish I lived in a different house				
28	Members of my family talk nicely to one another				
29	I have a lot of fun with my friends				
30	My parents and I do fun things together				

		1 NEVER	2 SOMETIMES	3 OFTEN	4 ALMOST ALWAYS
31	I like my neighborhood				
32	I wish I lived somewhere else				
33	I am a nice person				
34	This town is filled with mean people				
35	I like to try new things				
36	My family's house is nice				
37	I like my neighbors				
38	I have enough friends				
39	I wish there were different people in my neighborhood				
40	I like where I live				

What do you think about all these questions?

Is there anything that I haven't asked you about your life that you would like to tell me?

APPENDIX G: DEMOGRAPHIC/ADHD DATA MATRIX

C#	Demographics						ADHD-Related						Health Lit.		Notes
	Sex	Age	Grade	Race/Eth.	Geo: R/U	SES Y/N	Age @ DX	I/A Sx. 0-9	H/I Sx. 0-9	TX- Y/N	COD Y/N -notes	Perform >3	Child HLE >10: Y/N	Parent NVS Score > 4: Y/N	American Indian/Alaskan Native (1) Asian (2) Black/African American (3) Caucasian/White (4) Hispanic/Latino (5) Native Hawaiian/other Pacific Islander (6)
001	G	9	4	5	R	Y	8	1	4	Y	Y	N	Y	N	COD: depression, reactive airway disease
002	B	9	3	4	R	U	6	9	6	Y	Y	Y	Y	Y	COD: asthma, migraines
003	B	10	6	4	R	N	6	5	6	Y	N	N*	Y	Y	*Parent states child is on IEP
004	B	11	5	4	R	N	4	9	6	Y	Y	Y	Y	Y	COD: atopic dermatitis
005	B	10	4	4	R	Y	8	5	2	Y	N	Y	Y	Y	
006	B	9	4	4	R	Y	5	9	9	Y*	Y	Y	Y	Y	*Parent states child did not take medicine today COD: anxiety/depression/LD/Psoriasis
007	G	10	5	2/4	R	N	2	6	8	Y	Y	Y	Y	Y	COD: atopic dermatitis, eczema
008	G	8	3	2/4	R	N	7	9	6	N*	Y	Y	Y	Y	*Parent states child is not tx d/t med side effects COD atopic dermatitis, eczema
009	G	11	6	4	R	Y	9	3	4	Y	N	N	Y	Y	
010	B	8	4	4/5	R	N	6	2	2	Y	N	N	Y	Y	
011	B	8	3	4/5	R	Y	5	8	1	Y	Y	Y	Y	Y	COD: LD
012	G	10	5	5	R	Y	8	9	5	Y	Y	Y	N	N	COD: LD, read, write, math
013	G	10	5	4	R	N	6	1	1	Y	Y	N	Y	Y	COD: LD, asthma, atopic dermatitis, eczema
014	G	11	6	4	R	N	6	3	1	Y	N	Y	Y	Y	

C#	Demographics						ADHD-Related						Health Lit.		Notes
	Sex	Age	Grade	Race/Eth.	Geo: R/U	SES Y/N	Age @ DX	I/A Sx. 0-9	H/I Sx. 0-9	TX- Y/N	COD Y/N -notes	Perform >3 Y/N	Child HLE >10: Y/N	Parent NVS Score > 4: Y/N	American Indian/Alaskan Native (1) Asian (2) Black/African American (3) White (4) Hispanic/Latino (5) Native Hawaiian/other Pacific Islander (6)
015	G	10	5	*	R	Y	10	4	0	N	Y	Y	Y	Y	*multiracial 1, 4, 5 COD: LD, genetic phenotype
016	B	10	5	5	U	Y	9	1	0	Y	Y	Y	Y	Y	COD: anxiety, LD (reading/writing)
017	B	8	3	4	U	N	5	8	6	Y	N	Y	Y	Y	
018	G	10	5	4	R	N	10	2	5	Y	Y	Y	Y	Y	COD: anxiety, asthma, seasonal allergies
019	B	8	2	4	R	Y	3	5	4	Y	N	Y	Y	Y	
020	B	7	2	4	R	N	7	5	7	N	Y	N	Y	Y	COD: asthma, eczema

APPENDIX H: VANDERBILT ASSESSMENT SCALE PARENT FORM

D3 NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child. When completing this form, please think about your child's behaviors in the past 6 months.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3
26. Is spiteful and wants to get even	0	1	2	3
27. Bullies, threatens, or intimidates others	0	1	2	3
28. Starts physical fights	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others)	0	1	2	3
30. Is truant from school (skips school) without permission	0	1	2	3
31. Is physically cruel to people	0	1	2	3
32. Has stolen things that have value	0	1	2	3

Adapted from the Vanderbilt Rating Scales developed by Mark L. Wolraich, MD.

Revised - 1102

HE0350

D3 **NICHQ Vanderbilt Assessment Scale—PARENT Informant, continued**

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments:

For Office Use Only

Total number of questions scored 2 or 3 in questions 1–9: _____

Total number of questions scored 2 or 3 in questions 10–18: _____

Total Symptom Score for questions 1–18: _____

Total number of questions scored 2 or 3 in questions 19–26: _____

Total number of questions scored 2 or 3 in questions 27–40: _____

Total number of questions scored 2 or 3 in questions 41–47: _____

Total number of questions scored 4 or 5 in questions 48–55: _____

Average Performance Score: _____

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

NICHQ

National Initiative for Children's Healthcare Quality

McNeil Consumer & Specialty Pharmaceuticals

11-19/rev1102

APPENDIX I: NEWEST VITAL SIGN (NVS) QUESTIONNAIRE

This is a simple quiz about reading health information. The information below is on the back of a container of a pint of ice cream (see example).
You may use a calculator if you would like.

Q1. If you eat the entire container, how many calories will you eat?

A1. _____calories

Q2. If you are allowed to eat 60 grams of carbohydrates as a snack, how much ice cream could you have?

A2. _____

Q3. Your doctor advises you to reduce the amount of saturated fat in your diet. You usually have 42 g of saturated fat each day, which includes one serving of ice cream. If you stop eating ice cream, how many grams of saturated fat would you be consuming each day?

A3. _____grams

Q4. If you usually eat 2,500 calories in a day, what percentage of your daily value of calories will you be eating if you eat one serving?

A4. _____%

PRETEND YOU ARE ALLERGIC TO THE FOLLOWING SUBSTANCES: PENICILLIN, PEANUTS, LATEX GLOVES AND BEE STINGS.

Q5. Is it safe for you to eat this ice cream?

A5. YES_____ -or- NO_____ (*Please explain*)

Nutrition Facts

Serving Size	½ cup
Servings per container	4

Amount per serving

Calories 250 Fat Cal 120

	%DV
Total Fat 13g	20%
Sat Fat 9g	40%
Cholesterol 28mg	12%
Sodium 55mg	2%
Total Carbohydrate 30g	12%
Dietary Fiber 2g	
Sugars 23g	
Protein 4g	8%

*Percentage Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

APPENDIX J: ACROSS METHODS DATA ANALYSIS MATRIX

Data Analysis II: ACROSS Methods									
	DTC QL Themes			MSLSS Raw Mean Scores					
C#	**Nature**	**Activity**	**Connection**	**FAM**	**FRI**	**SCH**	**LIV**	**SELF**	**Total**
01	Outside	SA/REC	C/FAM (m)	2.57	2.67	3.88	2.44	1.86	2.68
02	Outside	SA/REC	C/FAM (m)	3.14	4.0	2.88	3.33	2.57	3.18
03	Outside	SA/REC	*Indirect* C/FRI (SA)	3.14	3.33	1.88	3.78	3.0	3.03
04	In/natural world	SA/CEL	C/FAM/LC/SS (m)	2.71	2.67	3.0	3.33	1.86	2.71
05	Outside	SA/REC	C/FAM/LC/SS (m)	3.14	3.33	2.5	3.0	2.57	2.91
06	In/natural world	A/Blend	C/FAM/LC/SS (m)	3.43	2.33	3.75	2.35	3.14	3.0
07	Outside	SA/REC	C/FAM/FF (m)	3.14	3.11	2.63	3.56	2.43	2.97
08	Outside	SA/REC	C/FAM/FF (m)	3.43	3.78	3.75	3.89	3.71	3.71
09	No evidence	No evidence	RC/FAM (m)	3.29	3.89	3.25	2.11	3.43	3.19
10	Outside/pet	SA/CEL	C/FAM/pet (m)	3.0	3.44	3.13	3.33	3.43	3.27
11	Outside	SA/REC	*Indirect* C/FAM (SA)	2.43	3.11	2.63	3.0	2.43	2.72
12	Outside/pet	SA/PUR	C/FAM/RC/pet (m)	3.14	3.78	3.50	3.44	3.43	3.46
13	Outside	No evidence	RC/FAM (m)	2.86	3.22	2.5	3.22	3.0	2.96
14	Outside	SA/REC	MC/FRI/FF (m)	2.57	3.33	2.0	3.33	2.57	2.76
15	Outside	A/SOLO	No evidence	4.0	4.0	4.0	4.0	4.0	4.0
16	Outside	SA/REC	*Indirect* C/FRI (SA)	4.0	4.0	2.25	3.11	3.43	3.36
17	No evidence	A/SOLO	No evidence	2.64	3.11	2.5	2.67	2.93	2.77
18	Outside/pet	SA/PUR	C/FAM/MC/pet/ FF (m)	2.86	2.89	2.88	2.55	2.43	2.72
19	In/natural world	A/Blend	No evidence	4.0	1.67	3.88	3.00	3.71	3.25
20	No evidence	A/SOLO	No evidence	2.14	3.11	3.25	3.44	2.86	2.96
(m) = meaning **Mean scores within and across domains (Total)**				***M*=3.08**	***M*=3.24**	***M*=3.00**	***M*=3.14**	***M*=2.93**	***M*=3.08**
Comparison mean scores (Huebner, 1994; N=312)				*M*=3.10	*M*=3.31	*M*=2.65	*M*=3.11	*M*=3.13	*M*=3.06
Comparison mean scores (Kelly, 2011; N=37)				*M*=3.29	*M*=3.27	*M*=3.05	*M*=3.04	*M*=3.12	*M*=3.15

APPENDIX K: NARRATIVE FRAME

DTC Data Narrative Analysis Frame					
C#	WHO	WHAT	WHEN	WHERE	WHY/MEANING (explicit/implied)
01	Child, aunt, uncle, grandma, cousins [Self & Family]	"Me and my family at the beach… We went up to the lake…" [SA] Tanning, building sandcastles, swimming, floating [REC]	This summer	Wallowa Lake [O] "The sun is sparkling onto the lake… The lake is shining" [N]	"I got to spend time with my family" Feeling *connected* to family [C/FAM]
02	Child, mom, step-dad, sister [Self & Family]	"Me and mom are on a roller coaster… [SA] riding the roller coaster" [REC]	"It was… last year summer"	Theme Park [O] "I saw two blue jays… this is the sky this is the sun" [N]	"Riding the roller coasters… It was fun" [SA/REC] Drawing shows he and mom in connected carts, step dad and sibling are drawn separate. Narrative describes "me and mom" Feeling *connected* to mom [C/FAM]
03	Draws self Talks about team [Self & Team]	"Me playing football on the football team" [SA/REC]	No time specified	Football field [O] Green grass [N]	"Football's my favorite sport… it's active" [SA/PRE] "I do have a lot of friends but I didn't want to…" (draw them) **Indirect story of connection to friends via shared activity* [C/FRI/SA]
04	No people drawn. Talks about people [Self & Family]	"When I was baptized… This is actually like where the people would be watching" [SA/CEL]	Last year	"INSIDE the sanctuary… looking out an open window" [O] "Mountains… sky... grass... and the stream" [N]	"That was my happiest time because I knew I would follow Christ or and umm… my sins are forgiven" Feeling *connected* to Christ and family [C/Christ/FAM] But then… lost *connection*. "He was baptized at the same place… Sadly he (Uncle) turned away from God" [LC][SS]
05	"Me and my me and Jonathan Isaac…" [Self & Family]	Playing boats with his cousin [SA/REC]	"When I lived in Idaho…" Summer	"My Mammy's house…" [O] "Dirt, water, boats, stump, pond" [N]	"My mammy lives there" [C/FAM] Child describes a time when he felt *connected* with his cousin and his Mammy. But then… He moved away and he misses his Mammy and cousin evidenced by his tears and story [LC][SS]

C#	WHO	WHAT	WHEN	WHERE/descriptors	MEANING/explicit/implied
06	"Me" Draws self. Talks about "mom, grandpa and grandma" [Self & Family]	"It's me getting an XBOX…" [A/SOLO]	"It was when I was only three … At Christmas	"Grandma's house…" INSIDE Draws tree with brown bark and green branches [N]	"When I lived in my grandma's house with my mom, grandpa and grandma… Feeling connected [C/FAM] "But then they separated and we had to go into our own apartment..." When child is asked what he really liked about that time he replies, "Not too many things… because of what happened" [LC][SS]
07	Child, aunt, uncle, sister [Self & Family]	Riding "a very big Ferris wheel" with family [SA/REC]	This summer	Theme Park [O]	"It was something we gotta do with our aunt and uncle when they have the days off" Feeling *connected* to family [C/FAM] "Even though I'm scared of heights and I still went on it" [FF]
08	Me, aunt, uncle, dad, girl who works there [Self, Family, Other]	Riding "the Ultimate Rush" with her uncle [SA/REC]	This summer	Theme Park [O]	"Everybody was there…" Feeling *connected* to family [C/FAM] " At first it was scary cuz it was really high up… they swung you over them and it looked like you were going crash into them…" [FF]
09	"This is me… That's my cousin…" [Self & Family]	Child tells a story about her cousin returning to her school [No Activity]	"When I was in fourth grade" [Two years ago]	"School" No other environmental context	"I'm so happy for her to come back to school… I was even more happy for her to be back" *Reconnecting* with cousin who she considers a friend at school [RC/FAM]
10	"I'm right there… Dad, mom, little brother and my sister and my big sister and my big brother… My dog" [Self, Family, Pet]	"This is my birthday… I had a pretty good 7th birthday…" [SA/CEL]	"Last September 20th"	Child's home. "We were having my birthday outside [O] "It's the sky… and that's the grass… [N]	"That everybody that I wanted to come was showed up and everybody in my family was there" Feeling *connected* [C/FAM/PET]

C#	WHO	WHAT	WHEN	WHERE/descriptors	MEANING/explicit/implied
11	"My dad, my mom, and my big brother, my sister, and my other big sister" [Self & family]	"My drawing when I was … I am fishing" [SA/REC]	Not specified	"Bully Creek" [O] "The fish" [N]	Catching a fish and "eating the fish" was "really fun" [SA/REC] Shared activity with family, outdoors, he caught and ate a fish **Indirect story of connection with family via SA* [C/FAM/SA]
12	"My sister my little sister my mom… my other sister and then there was the guy that was helping us" [Self, Family, Other, Pet]	"It was a time um we went when I um got my.. My mom bought us a dog cause I had a dog that died" [SA/PUR]	"It was like a year ago"	"Were at the Pet Market… Were outside" [O] 2 Dogs [N]	"Because like it made me so happy because like I missed my other dog" Story is about a time her entire family went to pick out a new dog to replace her dog that died. *Connected* to family and *reconnecting* with own pet [C/FAM and RC/Pet]
13	Child, brother, mom, dad [Child & Family]	"My mom and dad were divorced and… now their friends" [No activity]	Not specified	Outside [O] Sky, rain, rain drops, rain, rainbow, grass, flowers [N]	"I felt really good about my life when my mom and dad got back and were friends" Story is about the resolution of family conflict, and parental *reconnection* [RC/FAM]
14	No people drawn. Talks about self, friend, and staff.	"This is a drawing about the of the Boys and Girls Club…" [SA/REC] Making friends Doing new things	"I haven't been there in a while but I signed up a few years ago"	Outside [O] Blue sky, grass, green grass [N]	I went in and there were um rows for the different grades of people who were there. I saw a girl and I liked her immediately, we became good friends. Making new *connections* [MC/FRI] "I was really nervous the first day" [FF]
15	Child only	"Me at the park playing" [A/SOLO/REC]	Not specified	Outside [O] Green grass, blue sky, yellow sun, sand [N]	"Because it's a beautiful sunny day and all that…" [N]. She likes, "playing at the park, swing on swings" [A/PRE]

C#	WHO	WHAT	WHEN	WHERE/descriptors	MEANING/explicit/implied
16	Child & "goalie" for the other team [Child & Other]	"It's me scoring a goal." Playing soccer [SA/REC]	Not specified	"On a field" at "some park" [O]	"Um cuz we this year we been losing a lot and no one hasn't got a single goal… I kicked it and I made a goal…" Child is proud of his accomplishment in context of [SA/REC] because his team had not scored until this game. **Indirect connection with team via SA* [C/team]
17	Child only	"It's me playing video games" [A/SOLO]	Not specified	"In my living room"	"Like that you can kill and stuff… that's pretty much all.. I think" [A/PRE] Child likes to play video games at home and school
18	Mom, dad, sister, dogs [Child & Family]	"We went to the shelter and we got uh Rosie" (dog) [SA/PUR]	Not specified	Outside at a pet shelter [O] 6 dogs Flowers [N]	"I thought that all dogs were scary and they were all trying to bite you but then I realized it was just that one" Her story is about being bitten by a dog and the family decision to help her overcome her fears by getting a safe dog for the family "we got a good easy-going lab um that we maybe it would help us not be scared of them " [C/FAM] [MC/pet] [FF]
19	Child is in center of drawing. Story includes mom and dad. [Child & Family]	"There's a little guy (And he) Broke his arm and he getted to go to the doctors and he getted to go to bed" [A/blended]	"A time"	Home Yellow sun and blue sky [N]	"Because I get to go to bed bed is good" The child tells a blended story of activity that is difficult to follow and that changes. Meaning other than "bed is good" is unclear. [A/PRE]
20	Child, mom, dad, sister, aunts [Child & Family]	"I got *awesome* Lego sets that I wanted" [A/SOLO]	"It was Christmas day"	Home/INSIDE	Child tells a story of getting what he "*always wanted*" (3 times). This was "*fun*" (5 times). [A/solo/celebration] Interpretation, getting what you have always wanted is fun!

DTC Data Narrative Analysis Frame Key: [A] <u>Activity:</u> [A/SOLO]=*solo* [SA]=*shared* Descriptors: [CEL]=*celebration,* [PRE]=*preferred*, [PUR]=*purposeful,* [REC]=*recreational* **[C] <u>Connection</u>**: [C]=*connected*, [LC]=*losing/lost connection(s),* [MC]=*making new connection(s)*, [RC]=re*connecting,* Subplots: [FF] *facing fears,* [SS] *sad story* [**N] <u>Nature</u>**: [O] *outdoors*

APPENDIX L: CHILD SYNOPSES

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Me and My Family at the Beach ”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL:</td></tr>
<tr><td>  </td><td>Child, aunt, uncle, grandma, cousins [Self & family]

“Me and my family at the beach… We went up to the lake…” Tanning, building sandcastles, swimming, floating [Shared activity/recreation]

This summer

The lake

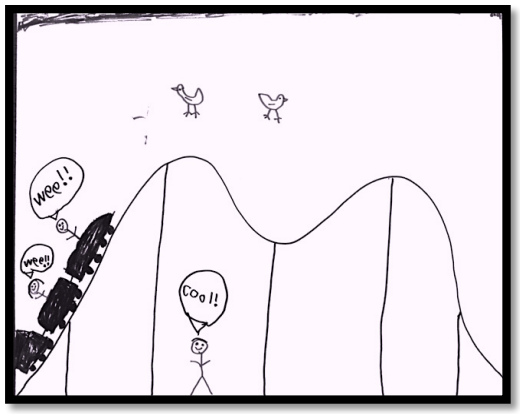
“The sun is sparkling onto the lake… The lake is shining” [Outdoor/nature]

“I got to spend time with my family” [Connected]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>2.57</td><td>#30 My parents and I do fun things together…. “Never!”</td></tr>
<tr><td>FRIENDS</td><td>2.67</td><td>“Sometimes me and my friends get into fights and stuff”</td></tr>
<tr><td>SCHOOL</td><td>3.88</td><td>“I love school!”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>2.44</td><td></td></tr>
<tr><td>SELF</td><td>1.86</td><td>#10 I think I am good looking “Never!”

#14 I like myself “Never” (“I make mistakes”)

#17 Most people like me “I don’t really know because… sometimes I can be not that ... uh nice.”</td></tr>
</table></td></tr>
<tr><td colspan="4">C01: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child starts DTC process saying, “I’m not a good drawer.” Child ends DTC process with, “I’ve never drawn so good!” She seeks reassurance from parent (e.g., “Is this a good color?”) She maintains a persistent effort and draws for 35 minutes. The child’s story is about a day spent with extended family members but leads to a post interview discussion about her bio parents who were not part of this day and who are not currently in her life.
MSLSS: Her comment “I make mistakes” is said with tears in context of parent asking her (post interview) why she made her specific response.
Thoughts: Parent stayed in the room due to space issues. The child sought reassurance from her parent who prompted the child to “tell the truth” in context of family-related questions.</td></tr>
</table>

DTC Drawing	DTC Narrative	MSLSS Mean Scores	MSLSS Comments
"Fun In The Sun "	Who/What/When/Where/Meaning	**TOTAL: 3.18**	



Child, mom, step-dad, sister
[Self & Family]

"Me and mom are on a roller coaster… Riding the roller coaster" **[Shared activity/recreation]**

"It was… last year summer"
Theme Park **[Outside]**

"I saw two blue jays… this is the sky this is the sun" **[Nature]**

"Riding the roller coasters… It was fun"

Visual/verbal "me and mom."
[Connected/family]

FAMILY	3.14	
FRIENDS	4.00	
SCHOOL	2.88	*#9 There are many things about school I don't like* - "Math and reading" *What's your favorite thing in school?* "PE"
LIVING ENVIRONMENT	3.33	*#32 I wish I lived somewhere else* - "Never! It's nice and quiet"
SELF	2.57	

C02: Excerpts from field notes & reflective journal

DTC: Child is very motor active; he fidgets, wiggles, scratches, and is easily distracted, asking, "can I play with the Legos?" He quickly draws his picture, leaving lots of white space, pausing once as if thinking. He struggles to sustain drawing effort and develop a story theme other than "I like roller coasters." Child's story is about a day spent with his mom, step dad and sister at a theme park. He and mom are in the front car, sister is behind and off the page, and stepdad is on the ground, "he took the picture." (Note: scanned copy is black/white)
MSLSS: Child responds quickly, offers little commentary.
Thoughts: Child is shy/hesitant. Both parents stay in the room during interview. There are many environmental distractions, e.g. machines, plumbing, toys, people talking, and traffic.

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Me Playing Football”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 3.03</td></tr>
<tr><td>  </td><td>Draws self, talks about team
[Self & Team]

“Me playing football on the football team”
[Shared activity/recreation]

No time period specified

On the football field [Outside]
Green grass [Nature]

“Football’s my favorite sport… It’s active” [Shared activity/preferred]

“I do have a lot of friends but I didn’t want too…” (draw them)

Indirect connection to friends via shared activity [Connection/friends]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>3.14</td><td>#19 My family gets along together- “Well there not together…” (Divorced)
#28 Members of my family talk nicely to one another-
“One is mean to one and one is nice to the other”</td></tr>
<tr><td>FRIENDS</td><td>3.33</td><td>“We don’t agree on stuff”</td></tr>
<tr><td>SCHOOL</td><td>1.88</td><td>#3 I feel bad at school –
“When I get bad grades on tests and stuff like that”
#9 There are many things about school I don’t like –
“Math, math, and math”
#13 I wish I didn’t have to go to school – “Past always”
Prefers - “PE” and “recess”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.78</td><td></td></tr>
<tr><td>SELF</td><td>3.0</td><td>What would you change about your self?
Uh if I was more intelligent</td></tr>
</table></td></tr>
<tr><td colspan="4">C03: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: After the introduction he states, “I don’t like to draw.” But he draws, using only a small space of his white page. He asks to restart on a new page after his first effort. He is engaged but persistent effort is limited; he does not want to draw all players because it would be “too much work.” He is very wiggly! His story is about him playing football – his favorite sport and an activity he feels good about.
MSLSS: He choses to mark his own answers, some off the page to emphasize his feeling around school. When asked what makes his life good? He replies, “Sports”
Thoughts: Child has problems with academics per child/parent report – he is on an IEP but reports many struggles that influence his self-concept (e.g. “If I was more intelligent”). He is reported to do well in sports.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“The Day I was Baptized”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 2.71</td></tr>
<tr><td>  </td><td>No people drawn. Talks about people [Self & Family]

“When I was baptized… This is actually like where the people would be watching” [Shared activity/celebration]

Last year

“Inside the sanctuary… looking out an open window” [Outside]

“Mountains… sky... grass... and the stream” [Nature]

“That was my happiest time because I knew I would follow Christ or and umm… my sins are forgiven”
Feeling connected to Christ and family [Connected]

Sadly... my.. (family member).. He was baptized in the same place but.. he turned away from God [subplot sad story]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>2.71</td><td>#28 Members of my family talk nice to me to one another....
“Sometimes they get in an argument”
Likes to go “stargazing”
“He left when I was born... I never knew him… kinda sad”</td></tr>
<tr><td>FRIENDS</td><td>2.67</td><td>“…You would like have a fight with them umm... but you’re still friends… Frenemy”</td></tr>
<tr><td>SCHOOL</td><td>3.0</td><td>I don’t like “getting in trouble… (being) Falsely accused.
I like “history”</td></tr>
<tr><td>LIV/ENV</td><td>3.33</td><td>“This is a good neighborhood”</td></tr>
<tr><td>SELF</td><td>1.86</td><td>#10 I think I am good looking
“Umm (sighs). …That’s kind of a hard one can we skip it?”
#17 Most people like me
“I’m not going to answer that”
#38 I have enough friends
I’m not going to answer that one it’s kinda weird</td></tr>
</table></td></tr>
<tr><td colspan="4">C04: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child draws with his head on the desk, working closely to his paper, he takes deep sighs… talks constantly. He draws “inside the sanctuary” of his “old church” from the perspective of looking out through the church window taking in the view of nature “mountains, sky, grass, stream.” There are pews or seats in the foreground where the people would sit. The story is about the day he was baptized, a ritual within his family.
MSLSS: During the MSLSS he is very easily distracted by the internal and external environment Child omitted three questions; he did not think they made sense or did not like the question.
Thoughts: This child has his own way of seeing the world and appears comfortable stating his opinion/needs. Sad stories of family came up in context of the DTC (e.g. “he did not make good choices”) and MSLSS (e.g., “… when he left I was born and I never knew him.”)</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“My Mammy’s House”</td><td>Who/What/When/Where/Meaning</td><td>TOTAL: 2.91</td><td></td></tr>
<tr><td>  </td><td>“Me and my me and cousin _____…”
[Self & Family]

Playing boats with his cousin
[Shared activity/recreation]

When I lived in _____…”
Summer

“My Mammy’s house…” [Outside]
“Dirt, water, boats, stump, pond” [Nature]

“<u>My mammy lives there</u>”
[Connected/family]

Child describes a time when he felt connected with his cousin and his grandma. But then… He moved away and he misses them both evidenced by his tears and story
[sad story/lost connection]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>3.14</td><td></td></tr>
<tr><td>FRIENDS</td><td>3.33</td><td></td></tr>
<tr><td>SCHOOL</td><td>2.50</td><td>#9 There are many things about school I don’t like
... “Sometimes …Reading”

What’s your favorite thing about school? “Recess”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.0</td><td></td></tr>
<tr><td>SELF</td><td>2.57</td><td>#5 There are lots of things I can do well
…”Sometimes” (very softly)
What do you think you do well?
… “Math” (very soft, hesitant)</td></tr>
</table></td></tr>
<tr><td colspan="4">C05: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child is very apprehensive. He starts drawing in the middle of the page, stops at times to reflect? Think? Remember? Looks up. He does not seek to engage but stays on task with determined effort. He covers the entire page, leaving little white space, moving the page around to cover different areas. Child’s story is about a past time when he played outside with his cousin in his grandma’s garden. His story produces tears in him (and mom). People are unrecognizable – circles & lines.
MSLSS: Prefers I write the answers. Responds mostly “often.” He thinks there are too many questions!
Thoughts: Child is very inhibited. Parent is very supportive. At the end of interview we talked about the family move – no tears upon leaving. Child really liked the art-kit.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“It’s Me On Christmas”</td><td>Who/What/When/Where/Meaning</td><td>TOTAL: 3.0</td><td></td></tr>
<tr><td>  </td><td>“It’s me ”
Draws self. Talks about “mom, grandpa and grandma”
[Self & Family]

“… Getting an XBOX… I mean 360”
[Activity/solo]

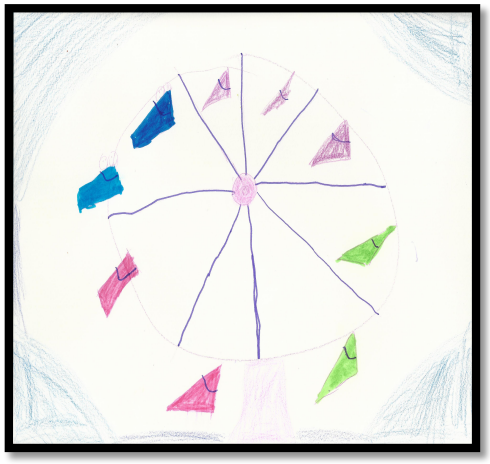
“It was when I was only three … At Christmas”

“Grandma’s house…” [Inside]

Tree with brown bark and green branches
[Nature]

“When I lived in my grandma’s house with my mom, grandpa and grandma…
Feeling connected [Connected/family]
“But then they separated and we had to go into our own apartment...” When child is asked what he really liked about that time he replies, “Not too many things… because of what happened”
[Sad story/lost connection]</td><td>
<table>
<tr><td>FAMILY</td><td>3.43</td><td>#7 I like spending time with my parents - “Always… play video games with them
#19 My family gets along well together - “Sometimes… ever since that some of our happiness has gone away”</td></tr>
<tr><td>FRIENDS</td><td>2.33</td><td>#4 I have a bad time with my friends
“At school my friends was talking bad about me”</td></tr>
<tr><td>SCHOOL</td><td>3.75</td><td>“I love PE! And library”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>2.33</td><td>#15 There are lots of fun things to do where I live... “Only the video games… because I live in apartments” What would you like to have? “A swing… a playground”
#27 I wish I lived… “In a mansion!”
#31 I like my neighborhood - “I have two bullies in my neighborhood”</td></tr>
<tr><td>SELF</td><td>3.14</td><td>#2 I am fun to be around
“I play a lot I actually I also help people”</td></tr>
</table>
</td><td></td></tr>
<tr><td colspan="4">C06: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child immediately engages me in dialogue about his video games & pugs. He is chatty and MOTOR ACTIVE – the entire time. He kicks off his shoes at the door, runs around the room, taps his legs, kicks me under the table repeatedly, crawls/hides behind a chair, stands on his head in the chair, sings jingle bells, and is constantly distracted by internal/external stimuli. He tries to keep me verbally engaged the whole time. He settles briefly while drawing but he remains very fidgety. He works closely to his paper, talks almost constantly, and at one point he gets up to wash his hands because he had marker all over his hands. His story is initially about him at Christmas getting a package that contains a video game but then the story changes to when he was younger and his grandparents “separated” necessitating he and mom move into their own apartment. This story resurfaces in the MSLSS.
MSLSS: He karate chops his answers onto the sheet
Thoughts: This is the first and only child from a mental health clinic.</td></tr>
</table>

DTC Drawing	DTC Narrative	MSLSS Mean Scores	MSLSS Comments
"Ferris Wheel Fun"	Who/What/When/Where/Meaning	**TOTAL: 2.97**	



Child, aunt, uncle, sister
[Self & Family]

Riding "a very big Ferris wheel" with family [Shared activity/Recreation]
"I went with my aunt because my uncle thinks is funny to rock the cart"

This summer [Recent]

Theme Park [Outside]

"It was something we gotta do with our aunt and uncle when they have the days off"

Feeling *connected* to family [Connection/family]

"Even though I'm scared of heights and I still went on it" [FF]

FAMILY	3.14	
FRIENDS	3.11	"Sometimes my friend likes to just go off and be mean with the person that isn't very nice to me"
SCHOOL	2.63	"I just don't really like doing all the work, sometimes it's hard." "I like doing PE"
LIVING ENVIRONMENT	3.56	*#15 There are a lot of fun things to do where I live* – "Play baseball go to the park"
SELF	2.43	*#5 There are lots of things I can do well* – "Umm I can actually get on my aunts horses pretty good... I don't really get to very often.

C07: Excerpts from field notes & reflective journal

DTC: Child comes in, somewhat apprehensive and using an electronic device. Requests parent stay in the room. Begins drawing in the center of page making a large circle. She is quiet and meticulous with drawing & use of tools – selects one, draws, replaces cap, and returns to box. Sustained focused effort. Motor calm during DTC. Her story is about one day spent at a theme park with family, most especially her aunt and uncle of whom she is close too.
MSLSS: She makes her own response on paper. During the MSLSS she struggles to sit still, takes the pen cap off/on, drops it repeatedly on the floor, looks around the room She thinks there are too many MSLSS questions.
Thoughts: Child and parent endorse anxiety and she seems pleased she was able to overcome her fear of heights to have fun with family.

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Ultimate Rush”</td><td>Who/What/When/Where/Meaning</td><td>TOTAL: 3.71</td><td></td></tr>
<tr><td>  </td><td>Me, aunt, uncle, dad, girl who works there
[Self, Family, Other]

“This is the Ultimate Rush… You have to stand in a blue box thing and they but first they hook you up into these vests and then they hook you up to a black chain and you go into a blue box and then it lifts you up and then it says 3-2-1-fly and then it drag drags you across and then it makes you swing… it’s really fun.”
[Shared activity/recreation]

This summer
Theme Park [Outside]

“Everybody was there…”
Feeling connected to family [C/FAM]

“ At first it was scary cuz it was really high up… they swung you over them and it looked like you were going crash into them…” [subplot/facing fears]</td><td>
<table>
<tr><td>FAMILY</td><td>3.43</td><td>I like to-- go to special events and I like to hang out with them at home</td></tr>
<tr><td>FRIENDS</td><td>3.78</td><td>Sometimes we get into fights, it’s hard to explain… we argue Sometimes they make me cry or and um we normally get um then were normally not in fights anymore</td></tr>
<tr><td>SCHOOL</td><td>3.75</td><td>(9) There are many things about school I don’t like –
“Some of the people aren’t nice... I like doing PE and I like reading I like doing spelling”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.89</td><td></td></tr>
<tr><td>SELF</td><td>3.71</td><td>“Sometimes I get mad… I start being mean”</td></tr>
</table>
</td><td></td></tr>
<tr><td colspan="4">C08: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: She selects large paper. Very careful with instruments. Very focused, attentive, motor still, with good persistent effort. Begins with black pencils and draws two opposing pillars. She does not appear distracted by the noisy environment, but “in the zone!” She stops once to scratch her leg, look her picture over and continue. Her story is about a day spent with her family and beloved aunt/uncle going on a thrill-seeking ride.
MSLSS: She prefers I mark the response. She wiggles during the MSLSS. She likes the questions and does not think there are too many.
Thoughts: As noted.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“ BCF – Best Cousins Forever”</td><td>Who/What/When/Where/Meaning</td><td>TOTAL: 3.19</td><td></td></tr>
<tr><td>  </td><td>“This is me… That’s my cousin…”
[Self & Family]

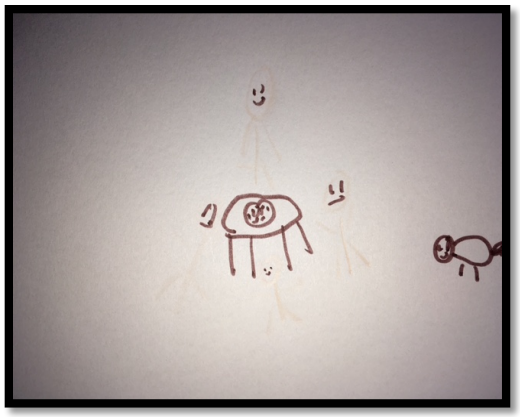
Child tells a story about her cousin returning to her school
[No Activity]

“When I was in fourth grade”
[Remote/two years ago]

At “School”

“I’m so happy for her to come back to school… I was even more happy for her to be back”

Reconnecting with cousin who she considers a friend at school
[Reconnecting/family]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>3.29</td><td></td></tr>
<tr><td>FRIENDS</td><td>3.89</td><td>#1 My friends are nice to me – “They’re nice to me but they still don’t really be kind of nice to me…”</td></tr>
<tr><td>SCHOOL</td><td>3.25</td><td>#9 There are many things about school I don’t like – “When you fail a math test”
#13 I wish I didn’t have to got to school -
“I don’t like going to school because this morning I got in trouble”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>2.11</td><td>#27 I wish I lived in a different house –
“I would live in a house with horses and cows” (child lives in apartment)</td></tr>
<tr><td>SELF</td><td>3.43</td><td></td></tr>
</table></td></tr>
<tr><td colspan="4">C09: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child is very “bouncy” so much that parent is prompted to say “she usually isn’t this bad.” The child is okay with parent going across the hall to complete her paperwork. She thinks before she begins to draw a figure (first makes an outline then fills in the space) in the right lower corner of the paper, moving left across the page to add the second figure. Once her figures are completed she uses larger brush strokes and fills in the narrative with names of people, school, etc. She works closely to the page but is completely still (QUIET) while drawing (no bouncing!) She is very focused on details – the clothes, hair, adds pops of color to hair, etc. things she and her cousin like. Slow & meticulous. Her story is about her cousin returning to the school she attends, which seems to indicate now she has a friend.
MSLSS: Completed fairly quickly. She fills each square with her initials. She reads ahead and reading this to an 11 year old is probably a stretch. Hints at family problems, but opts to not elaborate on the subject … appearing on the verge of tears when given the option to “tell me more.”
Thoughts: As noted.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“My Birthday”</td><td>Who/What/When/Where/<u>Meaning</u></td><td colspan="2">TOTAL: 3.27</td></tr>
<tr>
<td>  </td>
<td>“I’m right there… Dad, mom, little brother and my sister and my big sister and my big brother… My dog”
[Self, Family, Pet]

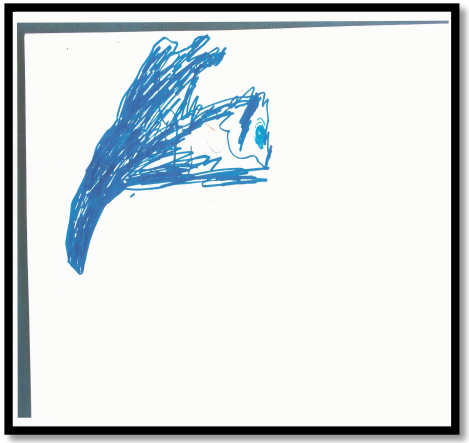
“This is my birthday… I had a pretty good 7th birthday…”
[Shared activity/celebration]

“Last September 20th”

Child’s home.
“We were having my birthday outside”
[Outside]

“It’s the sky… and that’s the grass…
[Nature]

“<u>That everybody that I wanted to come was showed up and everybody in my family was there</u>”
[Connected/family/pet]</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>3.0</td><td>#7 I like spending time with my parents – “I like helping them”</td></tr>
<tr><td>FRIENDS</td><td>3.44</td><td>“We get into arguments”</td></tr>
<tr><td>SCHOOL</td><td>3.13</td><td>#13 I wish I didn’t have to go to school – “almost every day”
What’s your favorite thing about school? “Recess and PE”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.33</td><td>#15 There are lots of fun things to do where I live – “I ride my skateboard… my bike... down the hills”</td></tr>
<tr><td>SELF</td><td>3.43</td><td>#2 I am fun to be around – what makes you fun? “When I play with my people, the people who don’t have anybody to play with”</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C10: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: He selects a large sheet of paper and then thinks about the DTC prompt for about 30 seconds before he begins to draw, starting in the center of the page drawing first a table, then something on the table, people around the table, and his pet off to the side. At the end he draws a blue border above and green border below. SIMPLISTIC. Uses beige, brown, blue, and green pencils. His story is about a special birthday, celebrated with family outdoors.
MSLSS: Prefers I complete the response, pauses several seconds when thinking before responding. He opts to not elaborate on some family problems.
Thoughts: Child was very pleasant and seemed to really enjoy the story telling part.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“The Fish ”</td><td>Who/What/When/Where/<u>Meaning</u></td><td colspan="2">TOTAL: 2.72</td></tr>
<tr>
<td>  </td>
<td>No people in his picture. Describes those present, “My dad, my mom, and my big brother, my sister, and my other big sister”
[Self & family]

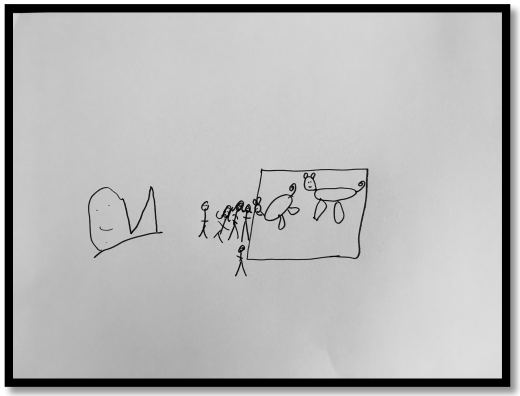
“My drawing when I was … I am fishing”
[SA/REC]

No time specified

“_____ Creek (Lake)” [Outdoors]

Fish, fishing [Nature]

What is it you really liked about fishing?
“<u>Eating the fish</u>”</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>2.43</td><td>#7 I like spending time with my parents – what do you like to do with your parents? “Play chess”</td></tr>
<tr><td>FRIENDS</td><td>3.11</td><td>“When I have good ideas in the game... they don’t let me put it put it in the game”</td></tr>
<tr><td>SCHOOL</td><td>2.63</td><td>#9 There are many things about school I don’t like - “Spelling tests”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.0</td><td>#11 There are a lot of fun things to do where I live – “Play with our cat... our cat that loves playing with us”
#27 I wished I lived in a different house – “A big house”</td></tr>
<tr><td>SELF</td><td>2.43</td><td>#5 There are lots of things I can do well – “Making friends”</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C11: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child selects a large sheet of paper. He draws an outline in the upper left hand quarter of the page and then fills it in with blue. His drawing is crude and he is finished in minutes. He is quiet, inhibited, responds more nonverbally than verbally (shrugs, nods). He is easily distracted. His story is about one day spent fishing with his family.
MSLSS: Child struggles to stay on the correct line, even with a guide below so I add a guide above. Several times he gets off the correct line and has to mark an answer out.
Thoughts/Observation: Child appears to have some impaired fine motor skills and problems with expressive language. Speech is disarticulate. He is very distracted.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Biscuit”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 3.46</td></tr>
<tr><td>  </td><td>“My sister my little sister my mom… my other sister and then there was the guy that was helping us”
[Self, Family, Other, Pet]

“It was a time um we went when I um got my... My mom bought us a dog cause I had a dog that died”
[Shared activity/purposeful]

“It was like a year ago… at the Pet Market… outside” [Outside]
2 Dogs [Nature]

“Because like it made me so happy because like I missed my other dog”
[Connection/family/pet]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>3.14</td><td>#19 My family gets along well together – “my sisters like they don’t get along much like my other sister and my other sister they never got along”</td></tr>
<tr><td>FRIENDS</td><td>3.78</td><td></td></tr>
<tr><td>SCHOOL</td><td>3.50</td><td>#3 I feel bad at school – “I’m like always in and out like… I’m not hardly in my class I have to go to this… group and like where I have to be with these other kids and stuff”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.44</td><td>#15 There are lots of fun things to do where I live – “We live near a park and my friends live near there”
#27 I wish I lived in a different house – “Never! Its like its like so big”</td></tr>
<tr><td>SELF</td><td>3.43</td><td>#2 I am fun to be around – “I don’t know… I’m like not like just being mean I’m mostly being nice”</td></tr>
</table></td></tr>
<tr><td colspan="4">C12: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child selects a small sheet of drawing paper, picks up a marker and begins drawing figures (box, animals, people) in the center of the page. She offers minimal verbalization or movement while she draws. Story is about a time her entire family went to pick out a new dog to replace her dog that died.
MSLSS: She sits still, responds to items with very little commentary but does talk about several things like having to leave the classroom for academic assist and her sibling’s conflict. She is one of the few kids that liked her home because it was big.
Thoughts: Child appeared anxious, timid, and was very inhibited. The icebreaker about books was not helpful. Child reports “no” books child or adult in the home and states she is just learning to read. Parent notes child has LD’s and performance problems in reading/writing/math</td></tr>
</table>

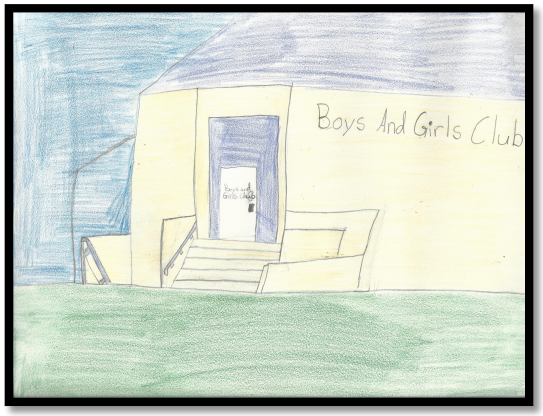
<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Now They’re Friends”</td><td>Who/What/When/Where/<u>Meaning</u></td><td colspan="2">TOTAL: 2.96</td></tr>
<tr>
<td> 
</td>
<td>Child, brother, mom, dad
[Child, mom, dad, brother]

“My mom and dad were divorced and now um so I’ve made a broken heart and made it stitched up because now their friends …”
[No activity]

No time specified

Outdoors [Outside]
Sky, rain, rain drops, rain, rainbow, grass, flowers [Nature]

“<u>I felt really good about my life when my mom and dad got back and were friends</u>”
[Connection/reconnection/family]</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>2.86</td><td>#7 I like to spend time with my family – “I like to play board games”
“Me and my brother fight every single day”</td></tr>
<tr><td>FRIENDS</td><td>3.22</td><td>There’s this one girl that gets mad at me a lot... she told me to shut up because I was being mean... my friend is sometimes mad at me... me and my friend got in a big fight”</td></tr>
<tr><td>SCHOOL</td><td>2.50</td><td>“I don’t like doing… writing, math, reading… Often I don’t want to go to school”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.22</td><td>“In my house there’s lots of things to do which is just playing on my computer… outside I either go on my trampoline, play basketball or I have my friend come over”</td></tr>
<tr><td>SELF</td><td>3.0</td><td>#17 Most people like me – “I don’t know that... You don’t know if anybody likes you because they might fake like you ... not actually really like you”</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C13: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child selects a large sheet of paper stating, “go big or go home.” She first draws a grass line along the bottom of the page, struggling to keep the marker on the page, coloring the table and then wiping the table with her fingers despite my reassurance it is okay. Next she draws a heart in the middle of the page and separates it with a line between mom and dad, later “stitching” it back together because the parents have reconciled. She draws a blue sky with raindrops and then she wipes out because “this is a happy time.” Her story is about the resolution of family conflict, and parental reconnection
MSLSS: Child gives great qualifiers and qualifies nearly every response!
Thoughts: Child is very outgoing & energetic – wiggling, talking, etc. Her parent greeted me with “sorry but we run out of medication so she hasn’t had any today, I hope that’s okay.” She is quick with visual stimuli, e.g. “dad’s house looks like a pencil, oh well I’m just going to go with it” adding details to make it more “pencil-like” or when reaching in a marker box she states “that looks like cotton candy… I’m going to put some cotton candy in here for no reason.”</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“I Went to the Boys & Girls Club”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 2.77</td></tr>
<tr><td> 
</td><td>No people are drawn. “I didn’t have room for people.” Talks about self, friend, and staff.
[Self, friend, staff]

“This is a drawing about the of the Boys and Girls Club… they have… art room, rec room, game room, and education center… Doing new things can help you make new friends and it might just be really fun.”
[Shared Activity/recreation]

“I haven’t been there in awhile but I signed up a few years ago”

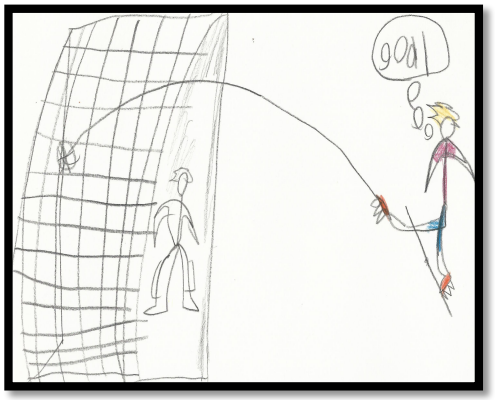
Outside [Outdoors]
Blue sky, grass, green grass [Nature]
The staff is really nice
I saw a girl and I liked her immediately, we became good friends. Making new connections
[Connection/staff; making new connections /friend]
“I was really nervous the first day”
[Facing fears]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>2.57</td><td>#7 I like to spend time with my parents – “I like to spend time with them but I can’t see them all the time… Play board games”</td></tr>
<tr><td>FRIENDS</td><td>3.33</td><td>#29 I have a lot of fun with my friends – “I don’t get to go over to their house; I do not have enough friends!”</td></tr>
<tr><td>SCHOOL</td><td>2.00</td><td>“I don't like school… It’s just really boring sometimes… I hate math I don’t like having to read out loud because it makes me feel nervous.” What’s a school activity you like? “History… recess… soccer”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.33</td><td>“There are a lot of rooms in the house… its really fun at my house”
#32 I wished I lived somewhere else – “like on a farm”</td></tr>
<tr><td>SELF</td><td>2.57</td><td>#10 I think I am good looking – “Often but my grandma thinks I’m vain”</td></tr>
</table></td></tr>
<tr><td colspan="4">C14: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: After discussing the study, tasks, consent process she proclaims, “I love to draw!” Before drawing she is CHATTY but once on task she is “in the zone.” Before selecting a paper size she asks what she is going to be drawing. After being given the prompt she selects a small sheet. She asks for a pencil that erases, “that's where I like to start.” She begins drawing in the center of the page, carefully and precisely, erasing any perceived error. After she outlines & titles her building she shades in event strokes yellow building, blue roof, blue sky, and green lawn. She is very detail oriented.
MSLSS: Child takes the pen from my hand and begins to mark her answers. She is guarded in her responses, rarely qualifies her answers and regards some as the questions as “personal.” She thinks there are too many questions.
Thoughts: Child comes to the interview with her grandparent. She pauses often to examine her drawing and/or MSLSS response.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“A Beautiful Sunny Day”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 4.0</td></tr>
<tr><td>  </td><td>“This is me at the park playing” [Activity/solo/recreation] When prompted adds “mom and uncle”

Time not specified

Outdoors [Outside]
Green grass, blue sky, yellow sun, sand [Nature]

“It's a beautiful sunny day and all that… playing at the park, swing on swings” [Activity/solo/preferred]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>4.0</td><td>#7 I like spending time with my parents, what do you like? – “Going to the park, watching TV”</td></tr>
<tr><td>FRIENDS</td><td>4.0</td><td></td></tr>
<tr><td>SCHOOL</td><td>4.0</td><td></td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>4.0</td><td></td></tr>
<tr><td>SELF</td><td>4.0</td><td>#5 There are a lot of things I can do well – “Science”</td></tr>
</table></td></tr>
<tr><td colspan="4">C15: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Selects a large sheet of paper then asks if she can turn it “this way” (portrait). She draws a green line “grass” and then proceeds to draw upwards – pants, shirt, finally the head, which compared to the detail/time she spent drawing her pants and shirt is much less. She talks CONSTANLY while drawing... “I am a good drawer, today in school teacher was reading us a book called Wonder, I have a doctors appointment tomorrow, I’m moving next year, I’m grandmas girl...” She reads aloud the colors of the markers. Her story is about her playing at the park on a “beautiful sunny day.”
MSLSS: She rushes through the MSLSS, reading, responding, often getting on the wrong line even with assistance. Responses are ALL dichotomous either NEVER or ALMOST ALWAYS but she is consistent with all questions, including the negatively keyed items.
Thoughts: Child has a primary newly diagnosed genetic phenotype that was not screed out with study exclusion criteria. Her physical size/appearance appear much older than her stated age of 10 years. No intellectual delay, she is in STEM classes, but she is very concrete. She is being tested for learning disabilities. She is very impulsive in her actions, grabbing drawing/writing instruments.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“First Time Scoring A Goal This Year”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 3.36</td></tr>
<tr><td> 
</td><td>Child & “goalie” for the other team [Child & Other]

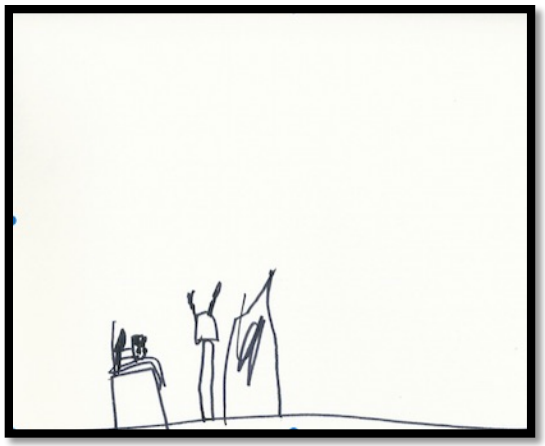
“It’s me scoring a goal.” Playing soccer [Shared activity/recreation]

Time not specified

“On a field” at “some park” [Outdoors/Nature]

“Um cuz we this year we been losing a lot and no one hasn’t got a single goal… I kicked it and I made a goal… happy”

Child is proud of his accomplishment in context of shared activity/recreation because his team had not scored until this game.
[Connection (indirect) with team via shared activity]</td><td colspan="2"><table>
<tr><td>FAMILY</td><td>4.0</td><td>#7 I like spending time with my parents – what do you like to do with your parents? “Go places play games play board games”</td></tr>
<tr><td>FRIENDS</td><td>4.0</td><td></td></tr>
<tr><td>SCHOOL</td><td>2.25</td><td>#3 I feel bad at school – what makes you feel bad at school? “Hard work I almost don’t understand and it’s more complicated because I have a lot of stuff to do.. I have lot of homework”
#9 There are many things about school I don’t like – “Math”
#26 I enjoy school activities – “PE… recess”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.11</td><td>We see a lot of creepy things here… small shadowish… too many cigarette people… I get a little bit scared</td></tr>
<tr><td>SELF</td><td>3.43</td><td>#5 There are a lot of things I can do well - Soccer, basketball, football I’m better at soccer</td></tr>
</table></td></tr>
<tr><td colspan="4">C16: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child selects a large sheet of paper and begins to draw in the left hand lower corner of the page. First he draws the goal net, then the goalie, and then him making a goal. He is silent while he draws. He talks about his team members and scoring a goal: “So there was a penalty and my friend was going to do it but I’m like no I’ll do it and he’s like no I got this perfect goal shot and I’m like no I’ll just do it and then I kicked it and I made a goal.” He felt “happy.”
MSLSS: He completes this quickly, often getting off the correct line but he pushes the guide to help him stay on the line away. He has to make several corrections. Parent remains at the table often prompting him to say “whatever you want she wants to know what you think...”
Thoughts: This is the first urban child and first home interview. Environmental distractions are many.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“It’s Me Playing Video Games”</td><td>Who/What/When/Where/Meaning</td><td colspan="2">TOTAL: 2.77</td></tr>
<tr>
<td>  </td>
<td>“It’s me…”
[Child only]

“… Playing video games”
[Activity/solo]

No time specified

“In my living room”

“Like that you can kill and stuff… that's pretty much all.. I think”

Child likes to play video games at home and school
[Activity/preferred]</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>2.64</td><td></td></tr>
<tr><td>FRIENDS</td><td>3.11</td><td>#11 My friends are great – “Sometimes… I think maybe I don’t really know… kinda like in between here”

#12 My friends will help me if I need it – “Sometimes I think maybe I don’t really know…”</td></tr>
<tr><td>SCHOOL</td><td>2.50</td><td>#13 I wish I didn’t have to go school – “Always uh… or often kind of like right here…”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>2.67</td><td>#37 I like my neighbors – “Their dogs are always barking”</td></tr>
<tr><td>SELF</td><td>2.93</td><td># There are lots of things I can do well - … Often I guess I’d say that. Okay what’s something you do really well?
I don’t... Well I don’t really know…</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C17: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: Child is initially hesitant and does not want to draw: “I’m not good at drawing” and “I don’t know what to draw.” After several minutes I tell him it is okay if we skip this part, we can come back to this later. As I begin to set the drawing stuff aside he says - “I have something.” He selects a large sheet of paper. He picks up a single marker, draws a ground line and then in the bottom left hand corner he draws a picture of him playing video games. The story is about him playing his video games.
MSLSS: He perks up a little, pays more attention as I read the MSLSS but rarely answers within the domain, instead he prefers “in-between” answers. Any attempt to get him to elaborate typically ends with “I don’t know” unless it is r/t video games.
Thoughts: Child was interviewed in a public library. He came with parent and younger sibling after he had just checked out a stack of video games. We find a corner upstairs to work but there are distractions. He picks at his nails, wiggles/fidgets, and looks around. He gives minimal effort and appears very distracted.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Picking Out A Dog”</td><td>Who/What/When/Where/<u>Meaning</u></td><td colspan="2">TOTAL: 2.72</td></tr>
<tr>
<td> 
</td>
<td>“It was me and my sister were kinda scared of dogs… so mom and dad…” [Self, mom, dad, sister, dogs]

“We went to the shelter and we got uh Rosie” (dog)
[Shared activity/purposeful]

Time not specified

Outside at a pet shelter [Outdoors]
Flowers, dogs [Nature]

“Mom and dad thought if we got a good easy-going lab um that we maybe it would help us not be scared [Connected/family/pet]

“I thought that all dogs were scary and they were all trying to bite you but then I realized it was just that one”
[Facing fears]</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>2.86</td><td>#7 I like spending time with my parents – Sometimes… we all get mad at each... What do you like to do with your parents?
“Not watch TV!”
“…Just sitting and talking like how our day is going and stuff.”</td></tr>
<tr><td>FRIENDS</td><td>2.89</td><td>#12 My friends will help me if I need it – ‘they don’t know what to do so they stick up for the person that's bullying me”</td></tr>
<tr><td>SCHOOL</td><td>2.88</td><td>#3 I feel bad at school – One of the boys thought its funny to bully people and be mean…”
“Sometimes it’s just really boring”
#26 I enjoy school activities - “Library or recess or PE or lunch or field trips”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>2.56</td><td>#27 I wish I lived in a different house – “Bigger”
“I don’t feel very safe”</td></tr>
<tr><td>SELF</td><td>2.43</td><td>“Sometimes cuz when I get mad I get really mad and I’ll take it out on other people and I shouldn’t”</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C18: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: She begins the process saying, “I’m not the best artist.” She selects a small sheet of paper, pauses to think and then begins to draw in the left bottom corner of the paper, first a dog, then herself, then she adds the dog shelter & family members above her and ‘Rosie.” Her story is about being bitten by a dog and the family decision to help her overcome her fears by getting a safe dog for the family
MSLSS: She has forgotten her glasses so she asks me to mark the page. She seems to think about her answer, provides an answer with little hesitation or difficulty, and spontaneously qualifies her answers.
Thoughts: Child appears anxious but interested. Parent reports it has been a “tough year.” The child has shown signs of ADHD since age 3 but was not diagnosed until age 10. “They kept saying she was just a spirited girl. Then we had to deal with her anxiety first before the ADHD.</td></tr>
</table>

<table>
<tr><th>DTC Drawing</th><th>DTC Narrative</th><th>MSLSS Mean Scores</th><th>MSLSS Comments</th></tr>
<tr><td>“Bed is Good”</td><td>Who/What/When/Where/<u>Meaning</u></td><td colspan="2">TOTAL: 3.25</td></tr>
<tr>
<td>  </td>
<td>Child is in center of drawing. Story includes mom and dad.
[Child & Family]

I used a story-telling frame to elicit a linear story… “Once upon a time…”
“There’s a little guy
(And he) Broke his arm and he getted to go to the doctors and he getted to go to bed” [Activity/blended]

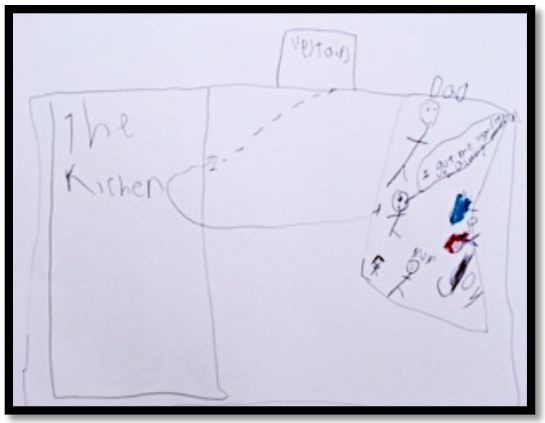
“This was like um a long time ago but I still I still had a good time”

Inside at home looking “outside in the sun” Yellow sun and blue sky [Nature]

“<u>Because I get to go to bed bed is good</u>”

Child tells a blended story of activity that is difficult to follow and that changes. Meaning other than “bed is good” is unclear.</td>
<td colspan="2">
<table>
<tr><td>FAMILY</td><td>4.0</td><td>#7 I like spending time with my parents – what do you like to do with your parents? “Watch TV”</td></tr>
<tr><td>FRIENDS</td><td>1.67</td><td>#4 I have a bad time with my friends – “When we’re playing football and they say rude names and they like push me down and everything... And they also kick my hands”

#23 My friends are mean to me - “...Always”
I wish I had different friends - “…Always”</td></tr>
<tr><td>SCHOOL</td><td>3.88</td><td>#9 There are many things about school I don’t like – “bullying”</td></tr>
<tr><td>LIVING ENVIRONMENT</td><td>3.0</td><td>#15 There are lots of fun things to do where I live – “playing with my cousin but he’s gone now…”</td></tr>
<tr><td>SELF</td><td>3.71</td><td>#5 There are lots of things I can do well – “I love my mom”</td></tr>
</table>
</td>
</tr>
<tr><td colspan="4">C19: Excerpts from field notes & reflective journal</td></tr>
<tr><td colspan="4">DTC: He begins to draw a figure in the center of the page. Then he draws a crate-like figure. Then he frames the drawing in blue then he adds a yellow sun. The figure is him. The “crate” is the door. The “frame” the blue sky. The sun is shining. His telling about his drawing is very disorganized and hard to follow - he is playing video games with dad, then eating at Carl Juniors, then falling a Carl Juniors which turns out to be he fell off the couch at home… what was good was he got to go to bed.
MSLSS: Answers most items with a single answer, rarely qualifies, it is easy to see FRIENDS is a very strong weakness and FAMILY is an area of strength.
Thoughts: Despite his challenges evident in the DTC process, he is at the center of his story surrounded by blue sky and the sun.</td></tr>
</table>

DTC Drawing	DTC Narrative	MSLSS Mean Scores	MSLSS Comments
"My Favorite Lego Set"	Who/What/When/Where/Meaning	**TOTAL: 2.96**	
	Child only initially. Mom, dad, sister, & aunts are added after further probing [Child & Family] "I got *awesome* Lego sets that I wanted" [Activity/solo] "It was Christmas day" (2016) Inside/home Child tells a story of getting what he "*always wanted*" (3 times). This was "*fun*" (5 times). Interpretation, getting what you have always wanted is fun! [Activity/solo/celebration]		

FAMILY	2.14	*#7 I like spending time with my parents* – "I like to play with them they're fun to be around unless they fight… Well they yell"
FRIENDS	3.11	"Sometimes we get into a fight." "They have my back and I have their back" "My friends are mean to me but not all the time" "I have lots of fun with my friends yah there pretty fun to be around unless they start bullying me"
SCHOOL	3.25	*#3 I feel bad at school* - Just sometimes… don't want to play with me and it makes me feel bad... And when they hurt me... Yah there's some bullies"
LIVING ENVIRONMENT	3.44	*#37 I like my neighbors* – "People are kind of rude cause they don't want to play with me"
SELF	2.86	*#2 I am fun to be around* – "Often because sometimes um I'm doing something really funny"

C20: Excerpts from field notes & reflective journal

DTC: He begins to draw right after the prompt, no pause. First he makes a big rectangle and then divides up the space according to rooms in his home. His focus is a wall where his Christmas toys were found. He labels his thoughts and rooms. Later he adds some color and other family members to his picture. He wiggles, fidgets, talks constantly, drops markers on the floor… His story is about getting the Lego set he "always wanted" at Christmas.
MSLSS: He answers the questions, reviews his answers, corrects/changes a few at the end. Two items in particular *#8 My family is better than most* and *#14 I like myself* are rated low and he qualifies with answers based on what appears to be of spiritual influence e.g., "God likes us all the same" and comments about not being focused on yourself.
Thoughts: He is the youngest child in the study.