

St. John's University

St. John's Scholar


Theses and Dissertations

2022

**MEASURING IRRATIONAL BELIEFS AMONG YOUTH:
DEVELOPMENT OF THE CHILDREN'S IRRATIONAL RESPONSE
CHECKLIST**

Alexa K. Pata

Follow this and additional works at: https://scholar.stjohns.edu/theses_dissertations

 Part of the [Psychology Commons](#)

MEASURING IRRATIONAL BELIEFS AMONG YOUTH:
DEVELOPMENT OF THE CHILDREN'S IRRATIONAL RESPONSE CHECKLIST

A dissertation submitted in partial fulfillment
of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

to the faculty of the

DEPARTMENT OF PSYCHOLOGY

of

ST. JOHN'S COLLEGE OF LIBERAL ARTS AND SCIENCES

at

ST. JOHN'S UNIVERSITY

New York

by

ALEXA K. PATA

Date Submitted: _____

Date Approved: _____

Alexa K. Pata

Mark D. Terjesen, Ph.D.

© Copyright by Alexa Pata 2022
All Rights Reserved

ABSTRACT

MEASURING IRRATIONAL BELIEFS AMONG YOUTH: DEVELOPMENT OF THE CHILDREN'S IRRATIONAL RESPONSE CHECKLIST

Alexa K. Pata

Cognitive Behavioral Therapy (CBT) and Rational Emotive Behavior Therapy (REBT) are evidenced-based approaches that have been identified as effective for the treatment of psychological disorders among youth (Bernard & Terjesen, 2020). However, although beliefs and cognitions have been shown to be predictive of emotional and behavioral problems in children (Mogoșe, Podină, et al., 2013), and modifications in cognitions have been shown to be vital for treatment (David et al., 2017), the research and psychometric properties surrounding measures designed to specifically assess irrational beliefs, self-statements, or automatic thoughts in youth are lacking due to theoretical and practical limitations (Terjesen et al., 2020). The aim of the present study was to address the aforementioned concerns in the measurement research by validating a new self-report measure of irrational beliefs designed for children ages 8 to 11 years old which assesses multidimensional responses to different realistic situational vignettes and is based on the REBT conceptualization of irrationality: The Children's Irrational Response Checklist (CIRCL). Results showed partial support of the proposed hypotheses within one of the three sample groups including adequate predictive, convergent, and discriminant validity as well as moderate to strong correlates between the CIRCL and other established measures of beliefs (e.g., Child and Adolescent Scale of Irrationality [CASI], Children's Automatic Thoughts Scale [CATS]) and social-emotional functioning (Behavior Assessment System for Children, Third Edition [BASC-3]). These preliminary

results add to the limited research within this area, provide promising areas for future research, and have important clinical implications for assessing and treating irrationality among youth.

ACKNOWLEDGEMENTS

First and foremost, I would like to extend my deepest gratitude to my dissertation mentor, Dr. Mark Terjesen, for all of his guidance, expertise, and thoughtful feedback since the beginning of my journey at St. John's University which has contributed to my growth as a researcher, clinician, and individual. I would also like to express my sincere appreciation to my committee members, Dr. Raymond DiGiuseppe and Dr. Lauren Moskowitz, for their time and support throughout this process as well as throughout my time at St. John's University. I have learned so much from you all over the past five years and I am very honored to be considered one of your colleagues.

Over the course of my academic and professional career, I have had the opportunity to learn from many talented and dedicated professors and supervisors at St. John's University who have been a source of inspiration. I am thankful for each of the skilled faculty who have helped to strengthen my skills, build my confidence, and shape my development as a school psychologist. Your compassion and commitment have been invaluable to my education and have helped to solidify my passion for the field of school psychology.

To my friends and fellow cohort members, I am truly appreciative of all of your help, kindness, laughter, and collaboration throughout my doctoral experience. I look forward to continuing to share our many future accomplishments.

To my fiancé, Daniel Kim, thank you for being by my side during the many late nights and weekends that I spent working on my coursework and dissertation. Thank you for always motivating me and for helping me to accomplish my goals. I am forever grateful for your unconditional support, love, patience, and encouragement.

Finally, thank you to my parents, Anthony and Rosemarie, and my brother, Nicholas. Thank you for believing in me and for giving me the opportunity to pursue my dreams. Without your love and support, none of this would have been possible. I would like to especially thank my father for his unparalleled support and dedication, for always making time for my many phone calls and emails, for offering his words of wisdom, and for being one of my biggest supporters and motivators! Thank you for teaching me what it means to work hard, persevere when faced with challenges, and build meaningful connections with everyone you meet. You are truly an inspiration for the person and parent that I hope to one day become. Thank you for everything that you do.

TABLE OF CONTENTS

| | |
|---|----|
| Acknowledgements..... | ii |
| List of Tables | vi |
| CHAPTER I..... | 1 |
| Introduction..... | 1 |
| Statement of the Problem | 1 |
| Efficacy of Cognitive Behavior Therapy and Rational Emotive Behavior Therapy .. | 2 |
| Assessment of Irrational Beliefs Among Youth | 5 |
| The Present Study..... | 12 |
| Hypotheses | 15 |
| CHAPTER II..... | 17 |
| Methods..... | 17 |
| Instrument Development | 17 |
| Expert Consensus and Focus Groups..... | 19 |
| Study Procedures and Participants | 22 |
| Measures..... | 24 |
| CHAPTER III | 27 |
| Results..... | 27 |
| Participant Demographics | 27 |
| Statistical Analyses | 30 |
| CHAPTER IV | 40 |
| Discussion..... | 40 |
| Discussion of Hypotheses and Existing Research..... | 40 |
| Limitations of Current Study..... | 42 |
| Directions for Future Research | 45 |

| | |
|--|----|
| CHAPTER V | 48 |
| Implications for the Practice of School Psychology | 48 |
| Appendices..... | 51 |
| Appendix A: Expert Consent Form..... | 51 |
| Appendix B: Focus Group Consent Form..... | 53 |
| Appendix C: Recruitment Electronic Communication | 55 |
| Appendix D: Study Parent Consent Form..... | 57 |
| Appendix E: Study Student Assent Form | 60 |
| Appendix F: Children’s Irrational Response Checklist (CIRCL) | 61 |
| References..... | 78 |

LIST OF TABLES

| | |
|---|----|
| Table 1. Participant Age and Gender Demographic Statistics..... | 27 |
| Table 2. Participant Race and Ethnicity Demographic Statistics..... | 28 |
| Table 3. ANOVA Analyses Results..... | 29 |
| Table 4. CIRCL Vignette Set C CASI and CATS Subscale Correlations..... | 33 |
| Table 5. CIRCL Vignette Set C BASC-3 Subscale Correlations..... | 34 |
| Table 6. CIRCL Beliefs Domain Total Score Correlations..... | 36 |
| Table 7. CIRCL Behavioral Domain Total Score Correlations..... | 37 |
| Table 8. Number of Students Identified as Having Clinically Significant Levels of Irrationality by Measure | 39 |

CHAPTER I

Introduction

Statement of the Problem

Studies examining the prevalence of psychological disorders within the general population have estimated that 10% to 20% of youth possess at least one diagnosable disorder and that as many as half of all youth will display symptoms or be diagnosed with a disorder by the age of 21 years old (Pas et al., 2014). Many theories and models of psychopathology in youth have identified unhelpful or unhealthy thinking patterns among youth as being predictive of their emotional and behavioral responses (Terjesen et al., 2017). More maladaptive or irrational thinking has been linked to more maladaptive behaviors, including aggression, withdrawal, impulsivity, and lack of emotional and academic resilience (Terjesen et al., 2017). Similarly, negative self-statements (e.g., “I am worthless”) are associated with greater levels of anxiety, depression, and mood dysregulation and have been shown to be important indicators of treatment outcomes both at the end of treatment and at follow-up (Castagna et al., 2019; Thompson et al., 2020).

This conceptualization of maladjustment, which identifies the role of beliefs and cognitions as a predisposing, maintaining, or causal factor in the prevalence of disorders among youth, is also supported by evidence-based therapy approaches such as Rational Emotive Behavior Therapy (REBT; Ellis, 1955). According to REBT theory, irrational beliefs can lead to disturbed emotions such as depression, anxiety, guilt, and anger that hinder the child’s goal-directed behavior (Terjesen et al., 2017).

Efficacy of Cognitive Behavior Therapy and Rational Emotive Behavior Therapy

Cognitive-behavioral therapy (CBT) is an evidence-based approach to treat emotional and behavioral problems among youth and adults (Crawley et al., 2010; Fraire et al., 2017; Sukhodolsky & Scahill, 2012). CBT operates under three basic premises: (a) specific types of thoughts can negatively impact emotions and behaviors, (b) these thoughts can be assessed and changed, and (c) desired affective and behavioral change may be achieved through changing one's thinking from unhealthy to more adaptive types of cognitions (Dozois et al., 2019; Terjesen et al., 2017). CBT's demonstrated efficacy has led it to become the preferred treatment method for many major emotional and behavioral difficulties that children experience, including anxiety and depression (Seligman & Ollendick, 2011).

REBT is a theoretical model and clinical strategy that exists within the broader CBT therapeutic orientation. REBT focuses on modifying thinking patterns to address emotional and behavioral concerns and is recognized as a beneficial and effective therapy for school-age children and adolescents who experience emotional and behavioral problems (David et al., 2017; Oud et al., 2019; Terán et al., 2020). REBT theory is based on the concept of rational and irrational beliefs and addresses how emotional disturbance and dysfunctional behavioral responses develop as a result of irrational thinking such as irrational perceptions (e.g., "He doesn't like me") and evaluations (e.g., "It is terrible that he doesn't like me") about events rather than solely the events themselves (David et al., 2017; DiGiuseppe & Doyle, 2019). In contrast to rational beliefs, which are considered pragmatic, non-absolutistic, flexible, and consistent with reality, irrational beliefs are

considered to be non-pragmatic, absolutistic, rigid, and inconsistent with reality (Szentagotai & Jones, 2010; Terán et al., 2020; Turner, 2016).

REBT theory suggests that irrational beliefs can be divided into four main categories: (a) demandingness (DEM; e.g., “Others must be kind to me!”); (b) awfulizing/catastrophizing (AWF; e.g., “This is the end of the world!”); (c) frustration intolerance (FI; e.g., “I can’t stand getting a bad grade”); and (d) global evaluation of worth/self-downing (GE/SD; Browne et al., 2010; DiGiuseppe & Doyle, 2019; Terán et al., 2020). The final category, GE/SD, can also be further divided into Ratings of Worth–Self (ROW-S; e.g., “I am a loser because I got that question wrong”) and Ratings of Worth–Other (ROW-O; e.g., “The teacher is stupid for getting me in trouble”; Browne et al., 2010; DiGiuseppe & Doyle, 2019; Terán et al., 2020). REBT-informed clinicians work with clients to change their dysfunctional emotions and behaviors by challenging their core irrational, maladaptive beliefs and modifying them into more rational, adaptive alternatives (David et al., 2017; DiGiuseppe & Doyle, 2019). The premise of this approach is that by challenging irrational beliefs and promoting the use of more rational beliefs instead, the client will experience reductions in symptoms and improved overall functioning (Browne et al., 2010; DiGiuseppe & Doyle, 2019; Dozois et al., 2019).

Most recently, in a meta-analysis consisting of 82 articles, David et al. (2017) assessed the effectiveness of REBT interventions as well as REBT’s effect on mechanisms of change (i.e., rational and irrational beliefs) for children and adults. Results of that meta-analysis revealed that REBT had significant medium effect sizes in both between and within-groups analyses for outcome measures at post-intervention compared to other interventions (David et al., 2017). In terms of the proposed

mechanisms of change, David et al. (2017) concluded that medium effect sizes existed when comparing changes in rational and irrational beliefs within REBT to a control group and within REBT groups, and that a small but significant effect was shown within-subjects at follow-up. When analyzing REBT treatment effectiveness related to the client's age at the time of treatment, research suggests that if left untreated, disorders can persist into adolescence and adulthood, with emotional and behavioral problems becoming broader and more severe over time (Bennett et al., 2013; Kendall & Peterman, 2015). These findings emphasize the importance of early assessment and intervention for children's maladaptive thinking in order to make the most beneficial impacts on their functioning.

Considering the far-reaching applications of REBT treatment, understanding the research on the mechanisms of change involved in REBT, identifying how cognitions or beliefs contribute to maladaptive emotions and behaviors, and recognizing how changing cognitions or beliefs may impact functioning would be particularly valuable for assisting practitioners in providing informed and effective treatment (David et al., 2017; Terjesen et al., 2017). As such, being able to differentiate between rational and irrational beliefs and measure change in irrational beliefs among children would be important to both to demonstrate support for the theory of REBT as well as guide clinical practice with clients (Hunsley & Allan, 2019; Terjesen et al., 2017). However, while there are some self-report measures of automatic thoughts and irrational beliefs, these are limited and only provide information on one aspect of the integration of thoughts-emotions-behavior since many of them only evaluate cognitions. Therefore, a more well-developed measure that reflects current REBT theory and language, and links thinking to emotions and behavior,

may help to address this gap and assist clinicians as well as school psychologists in providing counseling with children and adolescents with whom they work.

Assessment of Irrational Beliefs Among Youth

Within measures of social, emotional, and behavioral functioning, self-report measures completed by students themselves are used frequently (Makol et al., 2019). Self-report measures are considered sensitive to measuring covert difficulties (such as those associated with internalizing conditions) since the signs and symptoms of internalizing problems (e.g., worries, negative affect, headaches) are relatively difficult for others to directly observe (Makol et al., 2019). Children are, therefore, in a unique position to report their thoughts, beliefs, and subjective experiences through self-reports (De Los Reyes et al., 2019). This information can have important implications for diagnosis and treatment (e.g., allowing for more accurate and nuanced case conceptualizations) and highlights the importance of developing assessment tools that are appropriate for use with children and have the potential for evaluating their internal experiences more accurately.

On a more general CBT scale, several questionnaires have been developed to assess maladaptive beliefs in adults, such as the Cognitions Checklist (CCL; Beck et al., 1987), the Automatic Thoughts Questionnaire (ATQ; Hollon & Kendall, 2007, as cited in Schniering & Rapee, 2002), the Anxious Self-Statements Questionnaire (ASSQ; Kendall & Hollon, 1989, as cited in Schniering & Rapee, 2002), and the Rational and Irrational Beliefs Scale (RAIBS; Mogoșe, Ștefan & David, 2013). In addition, while some irrational belief measures such as the Rational Behavior Inventory (RBI; Shorkey & Whiteman, 1977) and Irrational Beliefs Test (IBT; Jones, 1968) have been written to

include indicators of emotional distress, other measures such as the General Attitude and Belief Scale II (GABS; DiGiuseppe et al., 1988, as cited in Terjesen et al., 2009), Survey of Personal Beliefs (SPB), Attitude and Belief Scale (ABS), and Irrational Belief Scale (IBS) contain exclusively cognitively-oriented items (Terjesen et al., 2009; Vîslă et al., 2016).

Building on this research, a large proportion of questionnaire measures for youth that target beliefs and cognitions have been created as downward extensions of instruments originally developed for adults (e.g., ATQ-C, CTI-C, CCL-C; Hogendoorn et al., 2010). However, items originally designed for adults may not necessarily be appropriate for measuring similar beliefs among youth (Hogendoorn et al., 2010). This is because the language and concepts used within adult measures may not be directly applicable to youth and may be interpreted differently due to their different levels of understanding (Hogendoorn et al., 2010). Therefore, downward extensions may not accurately measure the specific beliefs or maladaptive thoughts that children or adolescents engage in and may not adequately assess their internal experience (Hogendoorn et al., 2010). Because of these concerns, it is important for researchers to design, and clinicians to choose, measures specifically designed for youth with consideration for developmental level and items that reflect youth-friendly language and appropriate reading levels (Davis et al., 2019).

Although beliefs and cognitions have been recognized as a central factor in the development and maintenance of emotional and behavioral problems in children (Mogoșe, Podină, et al., 2013), and alterations in beliefs and cognitions have been shown to be vital for treatment (David et al., 2017), the research and psychometric

properties surrounding adequate measures designed to specifically assess irrational beliefs, self-statements, or automatic thoughts in children and adolescents are lacking (Terjesen et al., 2017). We agree with the assertion of Terjesen and colleagues over a decade ago (Terjesen et al., 2009) that, within existing measures of beliefs in youth, there is considerable variation among the psychometric properties, utility for assessment, and quality of standardization samples for each measure, which influences the ability to draw normative conclusions (Terjesen et al., 2009). This is concerning because measures of irrational beliefs are central to assessing presenting problems in psychotherapy as well as for guiding clinical decision making (Hunsley & Allan, 2019; Terjesen et al., 2009). Additionally, these measures can be helpful for identifying a change in irrational beliefs and measuring the effectiveness of specific interventions over time (David et al., 2017; Terjesen et al., 2009; Terjesen et al., 2017; Terjesen et al., 2020).

In looking at measures developed based on the model of REBT, Terjesen and colleagues (Terjesen et al., 2017) expressed some concerns about several early measures of irrational beliefs in youth that included the Children's Survey of Irrational Beliefs (Knaus & Eyman, 1974), the Idea Inventory (Kassinove et al., 1977; Wasserman & Vogrin, 1979), the Rational Behavior Inventory (Shorkey & Sasaki, 1983; Shorkey & Whiteman, 1977), and a modified version of Ellis's Irrational Belief Scale (Haase et al., 1979; Lee et al., 1979). Shortcomings of these measures included that they were not appropriate for a wide age range, did not achieve adequate reliability or validity, and many were not developed or revised past their initial conceptions (Terjesen et al., 2017). Existing scales of irrational beliefs in youth also contain some conceptual flaws (Terjesen et al., 2009). For example, many purported measures of irrational beliefs assess beliefs

embedded with emotional distress (e.g., “I often get excited or upset when things go wrong”); Shorkey & Whiteman, 1977) or behavioral consequences (e.g., “I avoid facing my problems”); Jones, 1968) within the same scale rather than exclusively assessing irrational beliefs independently (Terjesen et al., 2009). When this occurs, it may obscure the meanings of the results by artificially inflating the reported correlations between cognitions, emotions, and behaviors and making it more difficult to evaluate change when items labeled as beliefs are not actually measuring beliefs (Hogendoorn et al., 2010; Terjesen et al., 2009). Another major weakness of these measures of childhood irrationality included that they did not fully reflect updated developments in REBT’s conceptualization of irrationality such as focusing on the newer core irrational beliefs identified by Ellis (Bernard & Cronan, 1999; Terjesen et al., 2009; Terjesen et al., 2017).

One measure of irrational beliefs among youth that has been revised and efforts made to continue to improve it psychometrically is the Child and Adolescent Scale of Irrationality (CASI), which was developed by Bernard and Laws (1988) to measure the irrational beliefs of children and adolescents between the ages of 10 and 18 years old. In the development of the CASI, Bernard and Laws (1988) aimed to overcome the flaws associated with existing measures of childhood irrationality by removing the emotional or behavioral components within the existing items to create exclusively cognitively-worded items and prevent confounding the correlations with other measures of emotional or behavioral functioning (Terjesen et al., 2017). Bernard and Cronan (1999) later revised the measure again to make its items more reflective of Ellis's newer conceptualization of irrationality and more consistent with REBT theory. However, although these revisions strengthened the measure’s theoretical foundation and ability to assess beliefs, the

revisions also restricted its ability to assess any related emotional or behavioral difficulties that may be associated with those beliefs.

Through a series of studies consisting of over 1000 participants, Terjesen and colleagues (Terjesen et al., 2017) sought to evaluate the factor structure, reliability, construct validity, and discriminative validity for the 49-item revised CASI (Bernard & Cronan, 1999). Their results showed strong correlations among measures of affective and behavioral functioning with the CASI and differences were demonstrated between clinical and school-based samples providing evidence of validity for the CASI (Terjesen et al., 2017). Regarding the reliability of the measure, while the CASI was considered reliable as a whole, there was some variability in the internal consistency of the irrational belief subscales which ranged from .62 (Awfulizing) to .86 (Self Ratings of Worth; Terjesen et al., 2017). Additionally, although expert validation for a revised factor structure was provided, identifying an underlying factor structure for the CASI in this research was not successful (Terjesen et al., 2017). Terjesen and colleagues (Terjesen et al., 2020) have since revised the CASI and have conducted focus groups of students and obtained expert feedback as to the items and language. Efforts to create a more balanced approach towards types of beliefs and content areas (e.g., peers, parents, school) are reflected, and some international data has been published (Bernardelli & Terjesen, 2018).

Although not specific to REBT, another measure available for evaluating negative self-statements and automatic thoughts in children is the Children's Automatic Thoughts Scale (CATS; Schniering & Rapee, 2002). One of the unique features of the CATS is that it was designed to assess negative beliefs across both internalizing and externalizing difficulties in youth using developmentally sensitive items (Schniering & Rapee, 2002).

Items focused exclusively on cognitions rather than emotional or behavioral indicators of distress. These items were developed by interviewing clinically depressed, anxious, or behavior disordered children and adolescents aged 6 to 16 years old about self-statements that they experience across various situations (Schniering & Rapee, 2002). Confirmatory factor analyses with the resulting items showed that negative automatic thoughts in youth load on four distinct factors including physical threat, social threat, personal failure, and hostility, which then load onto a single higher-order factor (Schniering & Rapee, 2002). This factor structure was later replicated with new samples of clinical and non-clinical children and adolescents (Micco & Ehrenreich, 2009; Schniering & Lyneham, 2007; Schniering & Rapee, 2002). Regarding psychometrics of the CATS, internal consistency for the total scale and subscales was high, and test–retest reliability for a subsample of youth demonstrated good reliability in total scores at 1 and 3 months after initial testing (Schniering & Rapee, 2002). The questionnaire is considered a stable measure of automatic thoughts in children and adolescents, and discriminant validity for the CATS was obtained by comparing subscale and total score differences between non-clinical youth and clinically depressed, anxious, and behavior disorder youth (Micco & Ehrenreich, 2009; Schniering & Lyneham, 2007; Schniering & Rapee, 2002). In 2010, a further adaptation of the CATS was developed, the Children’s Automatic Thoughts Scale-Negative/Positive (CATS-N/P), to incorporate both positive and negative self-statements (Hogendoorn et al., 2010).

While both the CASI and the CATS are promising measures in evaluating unhealthy thoughts among youth, measures that also tap into additional domains of responding or measures that provide greater context for items may be beneficial. Other

measures assessing cognitive, emotional, behavioral, and physiological responses in different ways could also inform therapeutic approaches. One example is through the use of situational vignettes that provide context for irrational belief items. Vignettes help young people to feel more engaged and motivated, especially when discussions surround sensitive topics while allowing them to retain a high level of control over the process of responding (Sampson & Johannessen, 2020; Barter & Renold, 2000). Hypothetical vignettes have been recognized as an effective tool to obtain information on the opinions, attitudes, beliefs, values, perceptions, emotions, and decision-making of participants and have been used by numerous researchers in the fields of psychology, anthropology, education, social work, and nursing for these purposes (Erfanian et al., 2020). However, only a small number of studies have examined beliefs in youth using situational vignettes. Instead, many existing measures utilize isolated items without situational contexts.

One example of a measure that uses written vignettes to measure cognitive, physiological, emotional, and behavioral responses related to anger in youth is the Children's Anger Response Checklist (CARC; Feindler et al., 1993). The CARC proposes hypothetical problem situations that elicit self-report responses in cognitive, physiological, behavioral, and affective domains and helps to pinpoint the specific maladaptive and adaptive aspects of anger that can then be addressed at an early stage to prevent socially unacceptable behavioral responses (Hassan & Adhami, 2015). The measure instructs the student to select as many or as few responses as they would like to allow the student to fully express how they would respond in that situation. This allows the clinician to gain a more in-depth understanding of how the student may perceive and

respond to a similar situation in the future. In addition to its pilot study, it has also been used in other studies of anger in children (Hassan & Adhami, 2015).

Although the CARC includes options of cognitions related to anger for students to endorse, few vignette measures have been designed to evaluate beliefs in youth that are consistent with a specific theory, or more specifically, irrational beliefs among youth that are consistent with REBT. For this reason, the present study seeks to create an entirely new measure of irrational beliefs which utilizes a similar structure to the CARC. In contrast to measures such as the CASI that use individual, isolated items that ask for a level of agreement, measures which use vignettes may provide more of an opportunity to evaluate multiple domains of responses including beliefs as well as emotional, behavioral, and physiological responses as separate but related constructs and may appear more relatable or realistic to students. From a review of the literature, no questionnaires to date have been designed to assess irrational beliefs along with emotions, behaviors, and physiological responses in youth using situational written vignettes. This approach would be an important next step to allow for the assessment of all aspects of the broad range of responses that young people may experience in different situations which parallel potential real-life scenarios.

The Present Study

From a review of the present status of measures of irrational beliefs, there appears to be a need to create a valid irrationality assessment tool that is appropriate for use with children in order to help with early identification of irrational beliefs and associated responses. This would play an important role in the prevention of related disorders or further difficulties that may develop at a later stage without intervention. Identifying the

underlying multidimensional components of irrationality can also help tailor treatments specifically to the components identified by the measure, such as a domain of concern (e.g., cognitive/beliefs, behavioral, emotional, or physiological). The current assessment tool proposed in this research study utilizes written vignettes to help make measure items easier for children to understand, make the measure more engaging to children, improve the child's willingness to complete the measure, and offer youth the ability to provide responses across multiple domains. This allows for a multidimensional evaluation of childhood psychopathology that offers valuable information for the practitioner to use in therapy.

In their review of measures of irrational beliefs as they relate to the theory of REBT, Terjesen and colleagues (2009) recommended future scale development include items that only reflect the assessment of beliefs without items reflecting emotional or behavioral responses. However, this scale seeks to build off of this recommendation by having exclusively cognitive/belief-focused response options within a separate beliefs domain along with affective, behavioral, and physiological response option sets kept within additional separate domains. Using this approach, it is not a measure that solely examines cognitions or beliefs but instead has items that reflect all aspects of an emotional experience and offers scores in each of the aforementioned areas. This may be particularly important for evaluating the efficacy of cognitively based interventions and to examine within which domains the changes are seen. In addition, based on the recommendation of Terjesen et al. (2009), the proposed measure includes both rational as well as irrational belief options to provide an opportunity for evaluating whether interventions are not only changing the endorsement of irrational beliefs but also

promoting the use of more rational beliefs. Finally, Terjesen and colleagues (2009) recommended a larger number of items as well as a more diversified sample to increase the representativeness. Efforts were made to address this in the present investigation.

The aim of the present study is to address the aforementioned concerns in the measurement research by validating a new measure of irrational beliefs designed for use with children and adolescents: The Children's Irrational Response Checklist (CIRCL). The purpose of the CIRCL is to further the understanding of children's irrationality and refine available assessment techniques by providing a multidimensional measure derived from the theoretical constructs of REBT that utilizes hypothetical problem situations and child-friendly language to ease the interpretation of measure items for youth ages 8 to 11 years old. Since children are believed to become able to engage in meta-cognition when they reach Piaget's concrete operational stage, generally around 8 years of age, measures of irrational beliefs and the disputing techniques of REBT are believed to become appropriate at this age as well (DiGiuseppe & Bernard, 1990; Bernard et al., 2006; Pennequin et al., 2020). In addition, research has shown that children become able to provide valid and reliable self-reports of their personal experiences as well as their social, emotional, and behavioral functioning between the ages of 7 to 9 years old (Conijn et al., 2020). Therefore, this age range was determined to be appropriate for the development of this measure.

In contrast to measures such as the CASI that contain solely cognitive items, the measure that we have created provides situational context for its items and assesses multiple dimensions of responses, including beliefs as well as behavioral, emotional, and physiological difficulties. The CIRCL was designed to overcome the problems associated

with existing instruments measuring childhood irrationality and taps into irrational thinking by having students respond to different situational vignettes. This measure's structure incorporates research evidence suggesting that children who demonstrate irrational thinking will respond to ambiguous situations with more irrational beliefs, self-statements, maladaptive emotions or behaviors, physiological arousal, and/or negative evaluations of others (MacDonald et al., 2020; Mogoșe, Podină, et al., 2013; Panourgia & Comoretto, 2017; Szentagotai & Jones, 2010; Van Bockstaele et al., 2020). In addition, although the CIRCL has a theoretical foundation in REBT, it is designed to be applicable for a wide range of clinical approaches and utilized more broadly by clinicians incorporating CBT-guided therapeutic orientations as well.

Hypotheses

Based on the reviewed literature, this study addressed five hypotheses concerning students' irrational beliefs.

1. It was predicted that the factor structure of the CIRCL beliefs domain, when modeled as five separate but related factors based on the proposed five domains of irrational beliefs (AWF, DEM, RWS, RWO, and FI) and one factor based on healthy/adaptive beliefs, would demonstrate the best fit.
2. It was predicted that the CIRCL measure would demonstrate adequate (> 0.70) internal consistency and test–retest reliability for the total and subscale scores.
3. It was predicted that the measure would demonstrate discriminant validity across diagnostic status (i.e., would be able to distinguish between clinical and non-clinical populations). More specifically, it was hypothesized that youth from clinical

populations would score significantly higher within the CIRCL domain and total scores than youth from non-clinical populations.

4. As it relates to predictive validity, it was hypothesized that
 - a. Scores obtained on the CIRCL domains would correlate with emotional and behavioral difficulties as indicated by the internalizing and emotional symptoms indexes on the self-report of the BASC-3.
 - b. Scores obtained on the CIRCL domains would correlate with emotional and behavioral difficulties as indicated by the internalizing and externalizing indexes on the parent report of the BASC-3.
5. As it relates to convergent validity, it was hypothesized that
 - a. Scores obtained on the CIRCL beliefs domain would correlate with total and subscale scores obtained on the CASI, another measure of unhealthy thinking.
 - b. Scores obtained on the CIRCL beliefs domain would correlate with total and subscale scores obtained on the CATS, another measure of unhealthy thinking.

CHAPTER II

Methods

Instrument Development

The CIRCL is a self-report instrument designed to assess children's beliefs, emotional, behavioral, and physiological responses to brief vignettes and is based on REBT theory. It is a comprehensive checklist that examines how children think, act, and feel in response to 25 hypothetical situations. The CIRCL is designed to assess a wide range of responses in children by utilizing hypothetical situations to encourage self-report responses in multiple domains. We have developed the CIRCL to include scales for assessing beliefs, emotional, behavioral, and physiological response components. The purpose of the CIRCL is to further the understanding of children's irrational beliefs as it relates to other responses and behavior and refine available assessment techniques by providing a multidimensional measure of student functioning.

A large pool of 25 hypothetical situations was generated by the author and colleagues who are well-versed in REBT theory and practice. These situations were created to be representative of a range of general categories where students may have varied emotional and behavioral responses and include peer interactions, parent interactions, teacher interactions, and academics or the school environment in general. We chose to include vignettes with common childhood contexts to be salient, developmentally appropriate for school-aged children, and relevant to the students' real-world experiences. Each CIRCL item aimed to elicit a particular belief (e.g., awfulizing) and a particular content area (e.g., school, peers, etc.). Along with the creation of the

vignettes, possible beliefs, emotional, behavioral, and physiological responses to the 25 hypothetical situational vignettes were also generated.

Responses for each of the hypothetical situations were divided into four domains: a) beliefs – what the student would think, b) behavioral – what the student would do, c) emotional – how the student would feel, and d) physiological – how the student’s body would feel inside. Each of the four response domains contains six response options from which the student can choose and consist of both adaptive and maladaptive response choices. Within each response domain, the response options are worded in the form of statements and allow students to express the extent to which they endorse the response option using a 5-point Likert scale (1 = Not at all, 2 = A little, 3 = Somewhat/Moderately, 4 = Strongly, 5 = Extremely/Very strongly). These options allow students to select the level of response that is appropriate for them.

Responses from the beliefs and behavioral domains were further classified and coded to represent several “subdomain” categories. The beliefs domain responses were coded according to REBT theory, therefore, as (a) Awfulizing - AWF, (b) Frustration Intolerance – FI, (c) Demandingness – DEM, (d) Ratings of Worth Self – ROW-S, (e) Ratings of Worth Others – ROW-O, or (f) an adaptive, healthy cognition. The behavioral response domain is divided into the categories (a) withdrawal/avoidance, (b) overt adult confrontation, (c) overt peer confrontation, (d) covert aggression, (e) emotional dysregulation (e.g., cry), or (f) adaptive problem-solving. Response options within the emotional response domain include: Feel Mad, Feel Nervous/Worried, Feel Sad, Feel Guilty, Feel Happy, and Feel Jealous. Response options within the physiological response

domain include: Feel butterflies/pain in your stomach, feel your muscles/fists tighten, Feel your heart pounding/racing, Feel hot and sweaty, Feel tired, and Get cold hands.

Expert Consensus and Focus Groups

In order to be mindful of the factor structure and wording of the items created for this measure, the development of the items consisted of two steps: 1) seeking expert feedback on the wording of items and whether the items were consistent with the theory and practice of REBT and 2) conducting feedback groups among children related to the wording of the items. The feedback given by both the experts and students was used to revise the vignettes and response options.

Content validity of the CIRCL was established by having the items reviewed by a group of 16 experts in REBT theory, identified by one of the scale authors, who have published research in the area of REBT, practiced REBT-guided therapy, or have served on an REBT advisory or editorial board. Experts were contacted electronically and asked to go to a weblink that described the study and their proposed participation. At this weblink, they were given a consent form should they choose to participate (see Appendix A). Upon completion of the consent, they were directed to a website that presented them with a demographics form as to their experience and a portion of the CIRCL items to review. CIRCL items were randomly distributed so that each vignette, and its related responses, would be viewed by approximately five experts. Experts were asked to identify which construct within REBT theory they believed that each beliefs response option reflected and were also afforded the opportunity to provide feedback on the wording of items. Specifically, they were asked to categorize each of the vignettes and beliefs response options of the CIRCL according to which of the irrational beliefs

initially proposed by Ellis (e.g., AWF, DEM, FI, ROW-S, and ROW-O) they represented or were likely to elicit. In addition, experts were asked to identify which emotion they believed each behavioral response option reflected.

Expert consensus was considered to be achieved when over 60% (3 out of 5) of the REBT experts agreed that an item was representative of a particular irrational belief or emotion. Analyses of the vignettes suggest that 56% of the vignettes analyzed achieved expert consensus with regards to what type of irrational belief the vignette was likely to elicit and 60% of vignettes achieved expert consensus with regards to what emotion the vignette was likely to elicit. Analyses of the item responses suggest that 97.33% of beliefs responses analyzed achieved expert consensus with regards to what type of irrational belief the cognition options represented and that 78.67% of behavioral responses analyzed achieved expert consensus with regards to what emotion the behavior options represented. One interpretation of the agreement variability seen is that different clinicians or experts may hold different hypotheses about which beliefs would lead to different responses, which may have influenced their opinions. In addition, this reflects how different beliefs, emotions, or behaviors may be elicited by a single vignette based on individual differences. Following their review of items, the experts made suggestions concerning revisions of some items that were taken into consideration during subsequent revisions.

The CIRCL vignettes and response options were also reviewed by focus groups of children within our proposed age range. These focus groups involved a community sample of 19 children from the United States in grades 3–6 and included 12 (63%) boys and 7 (37%) girls. Student participants were recruited from letters sent to local school

psychologists and building-level principals as well as additional recruitment through social media. Letters and consent forms (see Appendix B) were sent home to parents explaining the objectives of the project and requesting their child's participation for the focus groups. Students who returned parent consent forms were invited to participate in the group and were asked to sign an assent form as well.

During each focus group, the children were organized into groups of approximately three to eight students and were seated in a classroom around a SMARTboard screen to view a PowerPoint presentation containing the CIRCL items. The researchers led the discussions and asked participants to respond to open-ended questions designed to assess their beliefs, behavioral, affective, and physiological responses to typical situations and naturally occurring conflicts. Researchers also asked the participants their opinions about existing vignettes and response options. Students provided oral feedback on the items and wording. Each student who participated in the focus groups received one \$10 Amazon gift card in exchange for their participation. Consensus was considered to be achieved when at least 3 out of 5 of the participants agreed on a response option. Out of the 100 response domains analyzed (including 4 response domains within each of the 25 vignettes reviewed), 53.1% of response domains (including 56% of beliefs domains and 72% of behavioral domains) showed agreement among participants regarding which response option they would choose. One interpretation of the level of agreement observed is that it reflects how different beliefs and responses may be elicited by a single vignette based on the child's individual differences. These results show the variability in possible responses and the potential for individualized response patterns within this new measure.

The wording of vignettes and item responses was then revised according to current REBT research while utilizing qualitative feedback from the expert consensus and focus group students. It was expected that for the final version of our measure, following the data collection phase, the total number of vignettes would be reduced from 25 to ten core vignettes, along with several supplemental vignettes, according to the following considerations, (a) vignettes demonstrating the strongest correlations with established measures, (b) vignettes demonstrating stable factor loadings on predicted beliefs subscales, and (c) vignette item discrimination indexes to assess whether items correctly discriminate between high scorers and low scorers (e.g., high irrationality and low irrationality). Each vignette contains four response domains (beliefs, emotional, behavioral, and physiological responses) with six response options per domain. We aimed to be mindful of the length of our measure to ease administration as well as allow the measure to either be given repeatedly for measuring change or to be used as part of a more comprehensive assessment.

Study Procedures and Participants

Student participants consisted of students from the United States ranging in age from 8-11 years old (Grades 3-6). One recommendation for determining an appropriate sample size for scale development is to recruit approximately ten subjects per scale item (e.g., 25 vignettes x 10 participants = 250 participants in this case; Boateng et al., 2018). Another recommendation for sample sizes for scale development proposes that “100 subjects = poor, 200 = fair, 300 = good, 500 = very good, and ≥ 1000 = excellent” (Boateng et al., 2018). Therefore, given statistical (e.g., sampling enough children to be able to draw conclusions from our analyses) and practical (e.g., recruitment and

reimbursement costs for participation and the resources available) considerations, this study originally aimed to recruit approximately 450 participants, however, due to limitations discussed in greater detail later in this dissertation, obtaining this sample size was not possible.

Test items for the CIRCL were written at a second-grade reading level based on the Flesch-Kincaid grade level readability statistic. The Flesch Reading Ease was also assessed to be 90.4 for this measure indicating that the text is likely to be easy to read and easily understood. Since completing all 25 of the vignettes including within the CIRCL measure was considered to be excessive for each child to complete in addition to the other measures administered, vignettes were instead divided into sets of approximately eight to nine vignettes each (i.e., vignette sets A [vignettes 1-8], B [vignettes 9-16], or C [vignettes 17-25]). Efforts were made to equally distribute the different vignettes across each vignette set based on the content area of each vignette (e.g., peers, parents, teachers, and school/academics). Efforts were also made to recruit typically developing children as well as children from clinical populations. In similar scale development studies (e.g., BASC-3), approximately 10%-30% of their total samples were recruited from clinical populations (Reynolds & Kamphaus, 2015). Therefore, I aimed to achieve a similar percentage in my recruitment. Recruitment for the study (both clinical and non-clinical populations) was conducted in a similar approach to focus group recruitment. Electronic communications (see Appendix C) containing contact information were sent to a convenience sample consisting of professional colleagues, parents, educators, school psychologists, and building-level principals. Beyond this, efforts were made to recruit additional parents of children via emailing relevant graduate school, psychological

organization, or parenting listservs, posting in relevant school-related and parenting-related social media groups, contacting youth programs and organizations, and contacting clinicians and mental health programs working with children. When contacted by families who were interested in participating, parents were asked to complete a screening survey to confirm their child's eligibility for participation and complete a consent form (see Appendix D) explaining the objectives of the project and requesting their child's participation. Upon receipt of completed consent, parents were provided with links that presented them with the BASC-3 parent report to complete as well as a student assent (see Appendix E) and the selected measures for their child to complete.

Measures

During the main data collection portion of this study, each participating child was randomly assigned into one of three vignette set groups and asked to complete either 8 or 9 vignettes from the finalized pilot CIRCL measure (see Appendix F) as well as The Child and Adolescent Scale of Irrationality (CASI), Children's Automatic Thoughts Scale (CATS), and Behavior Assessment System for Children, Third Edition (BASC-3) self-report. In addition, participating parents were asked to complete a demographics questionnaire and the Behavior Assessment System for Children, Third Edition (BASC-3) parent report.

Demographics questionnaire. A brief questionnaire was administered to parents which included questions regarding the participants' gender, age, race, ethnicity, state of residence, and diagnoses or educational classification if applicable.

Irrational Beliefs. The Child and Adolescent Scale of Irrationality (CASI) is a 36-item measure that assesses irrational beliefs in children and adolescents which is consistent

with Ellis's model of REBT theory. The CASI has been shown to possess psychometric support (including internal validity) and strong correlations with measures of social-emotional functioning such as the BASC-3 (Terjesen et al., 2017). The CASI is designed to assess the level to which children and adolescents endorse irrational beliefs related to demandingness (DEM), low frustration tolerance (LFT), ratings of worth of others (ROW-O), ratings of worth of self (ROW-S), and awfulizing (AWF) as well as a total score of irrationality (Bernard & Cronan, 1999; Terjesen et al., 2017). Since the existing literature on childhood irrationality measures is limited and Bernard and Cronan's (1999) CASI has shown the most empirical support at this time (Terjesen et al., 2017), the CASI was selected for use in this case for establishing correlations with the CIRCL. In the established literature, the CASI has also been used with younger ages (e.g., under 10 years old), thus supporting its use for the current study's anticipated age range.

The Child Automatic Thoughts Scale (CATS) is a 40-item measure that assesses automatic thoughts in children and adolescents based on Beck's model of Cognitive Therapy. The CATS has been shown to possess adequate internal consistency for its total scale and subscales and test-retest reliability for a subsample of youth (Schniering & Rapee, 2002). This questionnaire is considered a stable measure of automatic thoughts in children and adolescents.

Social, Emotional, and Behavioral Functioning. The Behavior Assessment System for Children-Third Edition (BASC-3) self-report and parent-report were selected in order to gain a standardized measurement of participants' social-emotional functioning compared to same-age peers (Kamphaus & Reynolds, 2015). The BASC-3 contains scales measuring a range of externalizing problems, internalizing problems, behavioral

difficulties, and adaptive difficulties. The BASC-3 was normed for youth ages 2 years to 25 years, allowing for appropriate age comparisons, and evidences strong psychometric properties such as internal consistency, reliability, and strong construct validity demonstrated via confirmatory factor analyses and clinical utility (Pearson Education, 2019). Based on this, the BASC-3 was selected as an appropriate broadband measure for assessing social, emotional, and behavioral difficulties.

CHAPTER III

Results

Following completion of the data collection portion of this study, results were first analyzed as they relate to the proposed hypotheses and were examined across vignette sets. Results were then examined according to each individual vignette set group.

Participant Demographics

The final sample included in the following analyses were 36 participants, including 13 (36.11%) males, 21 (58.33%) females, and 2 (5.56%) non-binary students. Descriptive statistics of the sample were generated and reported for the demographic variables of interest. The mean age of the sample was 10.29 years old with a range of 8 years, 5 months to 11 years, 11 months of age. Tables 1 and 2 provide additional information on participant demographics.

Table 1
Participant Age and Gender Demographic Statistics

| <i>Vignette Set Group</i> | <i>Age</i> | | <i>Gender</i> | | | <i>Sample Size</i> |
|---------------------------|-------------|---------------------------|---------------|---------------|-------------------|--------------------|
| | <i>Mean</i> | <i>Standard Deviation</i> | <i>Male</i> | <i>Female</i> | <i>Non-Binary</i> | <i>n</i> |
| Vignette Set A | 9.96 | 1.22 | 4 | 7 | 0 | 11 |
| Vignette Set B | 10.50 | 1.03 | 5 | 7 | 0 | 12 |
| Vignette Set C | 10.38 | 1.10 | 4 | 7 | 2 | 13 |
| Total | 10.29 | 1.11 | 13 | 21 | 2 | 36 |

Table 2
Participant Race and Ethnicity Demographic Statistics

| <i>Vignette Set Group</i> | Race | | | | | | Ethnicity | | | Sample Size |
|---------------------------|--------------------------|----------------------------------|--------------|---|--|--------------|---------------------------|-------------------------------|--------------------------|--------------------|
| | <i>White or European</i> | <i>Black or African American</i> | <i>Asian</i> | <i>Native American or Alaska Native</i> | <i>Multiracial or More than one race</i> | <i>Other</i> | <i>Hispanic or Latinx</i> | <i>Not Hispanic or Latinx</i> | <i>Prefer not to say</i> | <i>n</i> |
| Vignette Set A | 6 | 1 | 0 | 1 | 3 | 0 | 3 | 7 | 1 | 11 |
| Vignette Set B | 6 | 2 | 1 | 0 | 2 | 1 | 3 | 9 | 0 | 12 |
| Vignette Set C | 11 | 1 | 1 | 0 | 0 | 0 | 0 | 13 | 0 | 13 |
| Total | 23 | 4 | 2 | 1 | 5 | 1 | 6 | 29 | 1 | 36 |

A chi-square test of independence was performed to examine the relations between the vignette set group assigned and the gender, race and ethnicity demographics of the participants in each group. The relation between these variables was not significant with regard to gender ($X^2 = 3.84, p = .428$), race ($X^2 = 10.35, p = .411$), or ethnicity ($X^2 = 6.73, p = .151$). A series of analysis of variance (ANOVA) analyses were then conducted to determine if there were differences between the vignette set group assigned based on the age of participants in each group as well as their scores on the CASI, CATS, and BASC-3 scales administered. Results of these analyses showed that there was not a statistically significant difference in age ($F [2, 33] = .74, p = .487$), CASI scores, CATS scores, or BASC-3 scores based on the vignette set assigned. Additional ANOVA values are presented in Table 3. Based on the results of chi-square and ANOVA analyses, the

vignette set groups did not appear to be significantly different from one another with regard to the demographic variables measured or their scores on the scales of interest administered. Therefore, it is assumed that the three vignette set groups are statistically equivalent and can be treated as such within the conducted analyses.

Table 3
ANOVA Analyses Results

| | Sum of Squares | <i>df</i> | Mean Square | <i>F</i> ratio | <i>P</i> value |
|---------------------------------|----------------|-----------|-------------|----------------|----------------|
| BASC-3 Parent Report | | | | | |
| Internalizing Problems Index | 320.76 | 2 | 160.38 | 1.57 | 0.223 |
| Externalizing Problems Index | 878.79 | 2 | 439.39 | 2.99 | 0.064 |
| Behavioral Symptoms Index | 889.54 | 2 | 444.77 | 3.26 | 0.051 |
| Adaptive Skills Index | 493.62 | 2 | 246.81 | 3.11 | 0.058 |
| BASC-3 Self-Report | | | | | |
| Internalizing Problems Index | 747.81 | 2 | 373.91 | 1.85 | 0.173 |
| Emotional Symptoms Index | 335.93 | 2 | 167.96 | 0.81 | 0.452 |
| Inattention/Hyperactivity Index | 204.29 | 2 | 102.15 | 0.66 | 0.525 |
| School Problems Index | 6.17 | 2 | 3.09 | 0.02 | 0.980 |
| CASI | | | | | |
| Demandingness Scale | 0.22 | 2 | 0.11 | 0.43 | 0.652 |
| Low Frustration Tolerance Scale | 0.44 | 2 | 0.22 | 0.48 | 0.626 |
| Ratings of Worth: Other Scale | 0.08 | 2 | 0.04 | 0.11 | 0.900 |
| Ratings of Worth: Self Scale | 1.99 | 2 | 0.99 | 1.10 | 0.344 |
| Awfulizing Scale | 0.11 | 2 | 0.05 | 0.09 | 0.915 |
| Total Score | 0.12 | 2 | 0.06 | 0.19 | 0.829 |
| CATS | | | | | |
| Physical Threat Scale | 479.87 | 2 | 239.94 | 2.52 | 0.096 |
| Social Threat Scale | 282.25 | 2 | 141.13 | 1.34 | 0.275 |
| Personal Failure Scale | 210.71 | 2 | 105.36 | 1.02 | 0.372 |
| Hostile Intent Scale | 101.50 | 2 | 50.75 | 0.85 | 0.436 |
| Total Score | 3784.36 | 2 | 1892.18 | 1.61 | 0.216 |

Statistical Analyses

Upon completion of study measures, total values were summed for the beliefs and behavioral domains and response subdomain areas of the CIRCL and correlated with performances on the other measures administered to assess psychometric properties of the CIRCL measure including convergent and discriminant validity.

Internal Consistency and Reliability

Although initial hypotheses also included conducting analyses of the CIRCL's internal consistency and test-retest reliability, these analyses were later determined to not be possible given the structural limitations of the measure's response options as well as the recruitment limitations of the current study's small sample size. For example, since the CIRCL's response structure provided multiple choice options that each corresponded to a hypothesized construct rather than separate items each representing a separate construct, traditional internal consistency and factor analysis approaches would not be possible. Although some studies have identified Latent Class Analysis as one methodology to assess reliability for categorical variables, that type of analysis would require a significantly larger sample size than was available within the current study (Weller et al., 2020). Therefore, based on these restrictions, conducting analyses of the CIRCL's reliability and internal consistency were determined to not be possible.

Convergent, Predictive, and Discriminant Validity

Convergent and predictive validity were determined by assessing the degree to which the total and subscale scores on the CIRCL domains correlate with the total and subscale scores on other standardized measures of irrational beliefs (e.g., CASI and CATS) as well as measures of emotional and behavioral functioning (e.g., BASC-3). In

this study, a positive correlation between the endorsement of irrational beliefs on the CIRCL and endorsement of irrational beliefs on the CASI and CATS or reporting of maladaptive emotions and behaviors on the BASC-3 would provide evidence of the validity of the CIRCL. Considerable variability was observed between vignette set groups with regard to the strength and direction of correlations with the other measures administered. However, the proposed hypotheses were only supported by the results of CIRCL Vignette Set C in which: 1) Students who demonstrated higher levels of irrationality as measured by the CIRCL beliefs and behavioral domains also received higher scores of irrational beliefs and automatic thoughts as measured by the CASI and CATS respectively; and 2) Students who demonstrated higher levels of irrationality as measured by the CIRCL Vignette Set C beliefs and behavioral domains also demonstrated a higher degree of emotional and behavioral difficulties as indicated by the internalizing problems and emotional symptoms index scores on the self and parent report on the BASC-3. Correlation analyses indicated that the CIRCL total beliefs domain scores for Vignette Set C were significantly correlated with the CASI total score ($r = .90, p < .01$), CATS total score ($r = .89, p < .01$), and BASC-3 self-report and parent report scale scores. Further, there were strong significant negative correlations between the CASI and CATS total scores and the CIRCL healthy/adaptive beliefs totals within Vignette Set C ($r = -.89, p < .001$ and $r = -.90, p < .001$ respectively). Regarding emotional and behavioral functioning, several BASC-3 scales were significantly correlated with the CIRCL beliefs domain total scores for Vignette Set C: self-report Internalizing Problems Index: $r = .92, p < .001$; self-report Emotional Symptoms Index: $r = .93, p < .01$; parent report Internalizing Problems Index: $r = .70, p < .01$. With regard to

the relations between the CIRCL behavioral domain total scores and responses on the BASC-3 scales for Vignette Set C, the CIRCL behavioral total scores was significantly correlated with the self-report Internalizing Problems Index: $r = .92, p < .001$; self-report Emotional Symptoms Index: $r = .94, p < .01$; parent report Internalizing Problems Index: $r = .73, p < .01$. Based on these analyses, Vignette Set C was determined to have the strongest correlations with the other scales of interest administered. Although the results of the present study do not fully support the proposed hypotheses, they are promising in that scores obtained on the CIRCL domains within Vignette Set C correlated with emotional and behavioral difficulties as indicated by index scores on the self-report and parent report of the BASC-3 as well as the scores obtained on the CIRCL domains correlated with total and subscale scores obtained on the CASI and CATS measures of unhealthy thinking. Additional correlations for the CIRCL beliefs and behavioral domains subscales and the CASI, CATS, and BASC-3 subscales for Vignette Set C are presented in Tables 4 and 5.

Table 4
CIRCL Vignette Set C CASI and CATS Subscale Correlations

| Scale | CASI ROW-S | CASI ROW-O | CASI DEM | CASI LFT | CASI AWF | CATS Physical Threat | CATS Social Threat | CATS Personal Failure | CATS Hostile Intent |
|--------------------------------|------------|------------|----------|----------|----------|----------------------|--------------------|-----------------------|---------------------|
| CIRCL ROW-S | .90** | .36 | .46 | .55 | .72** | .78** | .81** | .75** | .56* |
| CIRCL ROW-O | .26 | .58* | .35 | .10 | .37 | .22 | .36 | .47 | .56* |
| CIRCL DEM | .07 | -.29 | .32 | .13 | -.07 | .45 | .09 | .05 | -.03 |
| CIRCL FI | .01 | .15 | .21 | .39 | .18 | .21 | .12 | .04 | .16 |
| CIRCL AWF | .24 | .47 | -.01 | .42 | .34 | .11 | .25 | .17 | .31 |
| CIRCL Adaptive Beliefs | -.93** | -.51 | -.59* | -.73** | -.82** | -.92** | -.90** | -.81** | -.71** |
| CIRCL Beliefs Total Score | .93** | .51 | .59* | .73** | .82** | .92** | .90** | .81** | .71** |
| CIRCL Withdrawal | .83** | .58* | .55* | .64* | .73** | .79** | .88** | .87** | .87** |
| CIRCL Adult Confrontation | .45 | .39 | .62* | .44 | .45 | .57* | .54 | .59* | .71** |
| CIRCL Peer Confrontation | -.20 | .28 | .25 | .19 | .13 | -.15 | -.02 | -.14 | .10 |
| CIRCL Covert Aggression | .38 | .20 | .61* | .40 | .33 | .62* | .47 | .49 | .55* |
| CIRCL Emotional Dysregulation | .62* | .18 | .16 | .50 | .59* | .54 | .63* | .64* | .26 |
| CIRCL Adaptive Problem-Solving | -.88** | -.56* | -.64* | -.75** | -.83** | -.88** | -.95** | -.95** | -.87** |
| CIRCL Behavior Total Score | .88** | .56* | .64* | .75** | .83** | .88** | .95** | .95** | .87** |

Note: * Indicates correlations significant at the 0.05 level (2-tailed)

** Indicates correlations that are significant at the 0.01 level (2-tailed)

Table 5
CIRCL Vignette Set C BASC-3 Subscale Correlations

| Scale | BASC-3 PR Anxiety | BASC-3 PR Depression | BASC-3 PR Withdrawal | BASC-3 PR Adaptability | BASC-3 SR Anxiety | BASC-3 SR Depression | BASC-3 SR Locus of Control | BASC-3 SR Self- Esteem | BASC-3 SR Self- Reliance | BASC-3 SR Sense of Inadequacy |
|-----------------------------------|-------------------------|----------------------------|----------------------------|------------------------------|-------------------------|----------------------------|-------------------------------------|------------------------------|--------------------------------|-------------------------------------|
| CIRCL ROW-S | .72** | .47 | .39 | -.26 | .83** | .61* | .43 | -.86** | -.74** | .70** |
| CIRCL ROW-O | .02 | .47 | .55 | -.54 | .21 | .33 | .35 | -.22 | -.32 | .45 |
| CIRCL DEM | -.04 | .41 | -.25 | -.38 | -.08 | .53 | .59* | -.32 | .13 | .02 |
| CIRCL FI | -.19 | .31 | .05 | -.35 | .07 | .33 | .56* | -.07 | -.11 | .22 |
| CIRCL AWF | .06 | .07 | .66* | -.06 | .51 | .06 | .07 | -.07 | -.23 | .31 |
| CIRCL Adaptive Beliefs | -.60* | -.69** | -.57* | .52 | -.90** | -.83** | -.73** | .92** | .76** | -.84** |
| CIRCL Beliefs Total Score | .60* | .69** | .57* | -.52 | .90** | .83** | .73** | -.92** | -.76** | .84** |
| CIRCL Withdrawal | .47 | .77** | .68* | -.73** | .73** | .76** | .66* | -.75** | -.76** | .87** |
| CIRCL Adult Confrontation | .28 | .80** | .57* | -.91** | .32 | .74** | .77** | -.56* | -.47 | .58* |
| CIRCL Peer Confrontation | -.32 | -.23 | -.15 | .08 | -.06 | -.19 | .08 | .19 | -.22 | -.03 |
| CIRCL Covert Aggression | .21 | .79** | .36 | -.87** | .22 | .79** | .83** | -.57* | -.33 | .47 |
| CIRCL Emotional Dysregulation | .58* | .18 | .20 | .22 | .60* | .40 | .12 | -.55 | -.47 | .58* |
| CIRCL Adaptive Problem-Solving | -.57* | -.79** | -.65* | .66* | -.77** | -.86** | -.73** | .85** | .81** | -.94** |
| CIRCL Behavior Total Score | .57* | .79** | .65* | -.66* | .77** | .86** | .73** | -.85** | -.81** | .94** |

Note: * Indicates correlations significant at the 0.05 level (2-tailed)
 ** Indicates correlations that are significant at the 0.01 level (2-tailed)

When examining the correlations measured for Vignette Sets A and B, correlations between the CIRCL beliefs domain total scores and CIRCL behavioral domain total scores and the CASI total score, CATS total score, and BASC-3 index scores were determined to not be significant. However, when CIRCL domain subscales were included in the analyses, nine correlations within Vignette Set A and six correlations within Vignette Set B were found to be significant. Within Vignette Set C, when including CIRCL total scores and subscale scores, 40 correlations were found to be significant. Additionally, all of these correlations were significantly correlated in the direction consistent with my hypotheses with the exception of one subscale. This observed exception was at the subscale level for Vignette Set B in which the CIRCL AWF subscale was significantly negatively correlated with the BASC parent report Internalizing Problems scale (-.602). Therefore, of the 55 significant correlations measured across vignette sets, 54 (98.18%) supported my hypotheses for this study.

In addition to assessing the level of significance of correlations as discussed above, using the Fisher-Z transformation which results in an approximate normal distribution (Williams & Rast, 2020; Hafdahl & Williams, 2009), the correlations were also able to be combined across vignette sets to assess the overall strengths of correlations across all sets. This analysis revealed moderate to strong correlations between the CIRCL beliefs domain total scores and the CASI ($r = 0.70$), CATS ($r = 0.53$), and BASC-3 self-report (Internalizing Problems Index, $r = 0.55$; Emotional Symptoms Index, $r = 0.62$) and weak to moderate correlations with the BASC-3 parent report (Externalizing Problems Index, $r = 0.05$; Internalizing Problems Index, $r = 0.33$) overall. This analysis also revealed moderate to strong correlations between the CIRCL

behavioral domain total scores and the CASI ($r = 0.65$), CATS ($r = 0.77$), and BASC-3 self-report (Internalizing Problems Index, $r = 0.70$; Emotional Symptoms Index, $r = 0.76$) and weak to moderate correlations with the BASC-3 parent report (Externalizing Problems Index, $r = 0.30$; Internalizing Problems Index, $r = 0.63$) overall. When comparing the correlations obtained across measures for each of the vignette sets, it was noted that stronger correlations were obtained between the BASC-3 parent report scales and CIRCL behavioral domain scores compared to the correlations obtained between the BASC-3 parent report scales and CIRCL beliefs domain scores. These differences in correlations may reflect greater consistency existing between measures of behavioral functioning which aim to assess similar underlying constructs. Similarly, stronger correlations were also observed between the administered measures of irrational beliefs (e.g., the CASI and CATS) and the CIRCL beliefs domain scores, which all aim to assess underlying beliefs, compared to the correlations obtained between the CASI and CATS total scores and the CIRCL behavioral domain scores. Further, see Tables 6 and 7 for additional information on the range of correlations across each vignette set.

Table 6
CIRCL Beliefs Domain Total Score Correlations

| Vignette Set Group | CASI | CATS | BASC-3 Self-Report | | BASC-3 Parent Report | |
|--------------------------------|--------------|--------------|-------------------------------|---------------------------|-------------------------------|-------------------------------|
| | <i>Total</i> | <i>Total</i> | <i>Internalizing Problems</i> | <i>Emotional Symptoms</i> | <i>Internalizing Problems</i> | <i>Externalizing Problems</i> |
| Vignette Set A | .49 | .35 | -.02 | .17 | .44 | .18 |
| Vignette Set B | .49 | -.12 | .12 | .23 | -.31 | -.23 |
| Vignette Set C | .90** | .90** | .92** | .93** | .70** | .20 |
| Combined Using Fisher-Z | .70 | .53 | .55 | .62 | .33 | .05 |

Note: * Indicates correlations significant at the 0.05 level (2-tailed)

** Indicates correlations that are significant at the 0.01 level (2-tailed)

Table 7
CIRCL Behavioral Domain Total Score Correlations

| Vignette Set Group | CASI | CATS | BASC-3 Self-Report | | BASC-3 Parent Report | |
|--|--------------|--------------|-----------------------------------|-------------------------------|-----------------------------------|-----------------------------------|
| | <i>Total</i> | <i>Total</i> | <i>Internalizing Problems</i> | <i>Emotional Symptoms</i> | <i>Internalizing Problems</i> | <i>Externalizing Problems</i> |
| Vignette Set A | .18 | .29 | .29 | .55 | .75** | .33 |
| Vignette Set B | .51 | .55 | .53 | .51 | .33 | .29 |
| Vignette Set C | .90** | .96** | .92** | .94** | .73** | .29 |
| Combined Using Fisher-Z | .65 | .77 | .70 | .76 | .63 | .30 |

Note: * Indicates correlations significant at the 0.05 level (2-tailed)

** Indicates correlations that are significant at the 0.01 level (2-tailed)

To assess the internal validity of the CIRCL, the correlations between subscale scores for the same domain were examined using the Fisher-Z transformation. The beliefs subscale scores aimed at assessing irrationality scores (AWF, DEM, FI, ROW-S, and ROW-O) were positively correlated with one another. In addition, on the CIRCL, the beliefs subscale scores aimed at assessing irrational beliefs were moderately negatively correlated with the beliefs subscale aimed at assessing healthy, adaptive beliefs (e.g., AWF [-0.57], DEM [-0.27], FI [-0.18], ROW-S [-0.71], and ROW-O [-0.31]). To assess discriminant validity, participants were originally planned to be divided into two groups (e.g., a community sample group and a clinical/alternative sample group) based on if their parents reported that they have a clinical diagnosis or not in order to explore whether student self-reports of irrational beliefs and behavioral responses would differ based on diagnostic status. However, this hypothesis could not be tested during the current data collection due to limited sample sizes. In order to further assess the potential clinical and

research utility of the CIRCL, ROC (Receiver Operating Characteristic) curves were utilized to identify cut-scores to differentiate children demonstrating a typical level of irrationality versus children demonstrating a clinical level of irrationality within the CIRCL beliefs domain. Using this approach, a cut-score of -0.5 was identified which suggests that children who score at or below -0.5 are more likely to have clinically significant levels of irrationality. Based on these results, it would appear that individuals demonstrating ratios of irrational to rational thoughts greater than a 1:1 ratio on the CIRCL are more likely to experience clinical levels of irrationality as measured by the CASI and CATS. For example, a student who approaches situations or vignettes with a roughly 50/50 chance of perceiving and reacting to the situation rationally versus irrationality is more likely to possess clinical levels of irrationality compared to children who react to situations with a majority of rational perceptions and reactions. This cut-score also appeared to be confirmed by similar differentiations between individuals identified within the clinical and non-clinical ranges on the CASI and CATS measures. Across the vignette sets, of the individuals identified as having clinically significant levels of irrationality, 41.18% (7 out of 17) of cases were identified as within the clinical range for all three measures of irrational beliefs administered (e.g., the CIRCL, CASI, and CATS), 47.06% (8 out of 17) were identified by both the CIRCL and CASI measures, and 64.71% (11 out of 17) were identified by both the CIRCL and CATS measures. In addition, 29.41% (5 out of 17) of cases were individuals that were uniquely identified as falling within the clinically significant range by only the CIRCL. Therefore, these results highlight the CIRCL's ability to identify cases consistent with other measures of irrational beliefs as well as unique cases not identified by the CASI or CATS

alone. Table 8 provides more information on the identification rates for typical versus clinical levels of irrationality for the different measures of irrational beliefs and automatic thoughts administered.

Table 8
Number of Students Identified as Having Clinically Significant Levels of Irrationality by Measure

| Vignette Set Group | <i>n</i> | Measure | | |
|-----------------------|----------|---------|------|-------|
| | | CASI | CATS | CIRCL |
| Vignette Set A | 11 | 3 | 7 | 6 |
| Vignette Set B | 12 | 3 | 3 | 6 |
| Vignette Set C | 13 | 3 | 6 | 5 |
| Total | 36 | 9 | 16 | 17 |

Confirmatory Factor Analysis

Lastly, upon analysis of completed CIRCL data, it was determined that a Confirmatory Factor Analysis would not be possible to assess the underlying factor structure of the CIRCL due to the limited sample size and the measure’s structure of irrational belief categories (e.g., AWF, DEM, FI ROW-S, and ROW-O). For example, the beliefs and behavioral domains of the CIRCL contain a categorical multiple choice response structure with five irrational or dysfunctional options along with a healthy/adaptive option rather than assessing a singular continuous underlying construct. With these categories embedded within different response options rather than structured as separate items, results do not allow for traditional factor structure analyses in which entire items factor together or appropriate exploration of response tendencies to assess how response patterns across multiple-choice options influence responding within items.

CHAPTER IV

Discussion

The discussion section will be broken down into three main sections. First, I will discuss the results of the present study in relation to my original proposed hypotheses and how the current results relate to existing research. Following this discussion, the second section will include a review of some of the limitations of the current study and the final section will include directions and opportunities for future research.

Discussion of Hypotheses and Existing Research

According to REBT theory, maladaptive patterns of thinking have been shown to be predictive of children's emotional and behavioral difficulties (Terjesen et al., 2017). In addition, existing measurement research has demonstrated that measures of cognitions or beliefs (such as the CASI and CATS) can be predictive of social-emotional functioning in children (Micco & Ehrenreich, 2009; Mogoșe, Podină, et al., 2013; Schniering & Lyneham, 2007; Terjesen et al., 2017). However, there are few existing measures specifically designed to assess irrational beliefs, self-statements, or automatic thoughts in children and adolescents with adequate psychometric properties (Terjesen et al., 2020). The purpose of this study was to address the current gap in the research, gain a better understanding of the assessment of irrationality in youth, as well as pilot a newly created measure for assessing irrationality in children.

While previous studies in this area have contained more robust psychometrics, the results of the present study are partially consistent with existing research (Micco & Ehrenreich, 2009; Mogoșe, Podină, et al., 2013; Panourgia & Comoretto, 2017; Schniering & Lyneham, 2007; Szentagotai & Jones, 2010; Terjesen et al., 2017; Terjesen

et al., 2020) on the measurement of beliefs and cognitions in youth. For instance, parts of the current CIRCL pilot study are consistent with previous findings (Terjesen et al., 2017; Terjesen et al., 2020) in which students who demonstrated higher levels of irrationality (as measured by the CIRCL beliefs and behavioral domains in one out of the three vignette set groups assessed in the current study) also received higher scores of irrational beliefs and automatic thoughts (as measured by the CASI and CATS respectively) and higher scores of emotional and behavioral difficulties (as indicated by the BASC-3). Although the proposed hypotheses were only supported by the results of one out of the three vignette set groups, CIRCL Vignette Set C, this newly designed measure is conceptually promising.

Regarding the variability and differences observed across vignette sets, efforts were made to equally distribute the available vignettes (with regard to number, content area, language demands, and the irrational beliefs and emotions that the vignettes was likely to elicit) into the three vignette set groups. For the vignette content areas, each vignette set contained three vignettes which focused on peer interactions, one vignette which focused on parent interactions, one vignette which focused on teacher interactions, and three vignettes which focused on school or academics. In addition, since Vignette Set C contained nine vignettes total rather than eight as in Vignette Sets A and B, Vignette Set C contained one additional vignette which focused on parent interactions. Regarding the irrational beliefs and emotions that each vignette was likely to elicit as predicted by the experts surveyed, although not all vignettes reached agreement on the primary irrational belief or emotion elicited, vignettes were distributed across vignette set groups as evenly as possible given the selection of vignettes available. Based on this distribution,

Vignette Set B was noted to have a greater representation of vignettes likely to elicit demandingness beliefs and Vignette Set C was noted to have a greater representation of vignettes likely to elicit awfulizing beliefs compared to the other two vignette set groups. However, the resulting data did not show significantly different rates of demandingness beliefs endorsed by participants in Vignette Set B or significantly different rates of awfulizing beliefs endorsed by participants in Vignette Set C. Based on the results of chi-square and ANOVA analyses, the vignette set groups did not demonstrate significant differences with regard to the demographic variables of the samples or their scores on the administered measures. Despite these efforts to equally distribute the available vignettes, the results of the present study and differences in correlations observed across Vignette Sets A, B, and C may have still been potentially influenced by unpredictable differences in the specific phrasings of different vignette stories or by individual interpretations of the different vignettes included within each vignette set. For example, although vignettes were selected from the same content area (e.g., peers), the specific vignette stories included within each set may have still differed enough from one another to have influenced responses such as a peer vignette about being made fun of versus a peer vignette in which a friend has broken their toy may not have been interpreted exactly the same by the participants. However, further research in this area is needed. Future researchers should seek to further explore and understand the potential reasons for the differences observed across vignette sets.

Limitations of Current Study

Although many strengths of the current research have been identified, it is important to interpret the results of this study in light of several potential limitations.

First, although efforts were made to identify as representative a sample as possible, due to practical limitations, the findings of the current study were based on a small sample size that is not fully representative of the larger population. Therefore, some demographic characteristics of the sample may limit the extent to which the findings of the current study can be generalized to the larger population. In addition, although efforts were made to identify a clinical sample in order to facilitate discriminant validity comparisons and a handful of students with academic or learning difficulties we identified, we are cautious in deferring to them as a truly representative clinical sample.

Given the time period for the current study, its implementation and results have inevitably been limited and shaped by the COVID-19 global pandemic and the resulting change to the public climate nationwide. Due to the unique influences of this global pandemic, social interactions, schooling, and research were required to transition to a fully virtual implementation during the course of this research study. As a result, the methods and results of the current study were directly impacted by the changes and required navigation of unprecedented times in education and research. In particular, study recruitment was strongly impacted by hesitancy of parents and schools to participate in research amidst existing pressures caused by the pandemic such as the need to prioritize ensuring the health and safety of their families and community. In addition, fully online or digital participation required access to, and familiarity with, technology in order for families to participate in the online research components and submit their survey responses. However, despite these challenges, the online recruitment and data collection process also brought beneficial influences to the current study including the ability to distribute information about the study and extend recruitment to include students from

across the United States without being limited by the distance accessible by the researchers in-person. Therefore, overall, efforts were made to recruit as many families interested in participating as possible while also being mindful of the current global circumstances.

Regarding other methodological limitations, some researchers have identified limitations associated with using an analogue methodology, such as vignettes (Headley & Campbell, 2011). For example, although this method has been shown to have high internal validity, its external validity has been reported to be questionable (Headley & Campbell, 2011). Specifically, individuals may provide idealistic responses when responding to hypothetical vignettes and, therefore, their reported beliefs, emotional, behavioral, and physiological responses may not represent how they would respond in a real-life situation. Moreover, responses to hypothetical descriptions of situations does not allow researchers or clinicians to fully account for real-life influences dynamics. For instance, a child's interpretations, emotional arousal, and behavioral responses are likely to vary according to the child's present mood or other environmental factors. However, researchers in support of analogue methodologies, such as vignettes, have found that vignettes can be a practical and valuable tool for studying perspectives, beliefs, judgments, and behavioral processes that may otherwise not be accessible through alternative approaches (Evans et al., 2015). In addition, vignettes can provide a degree of experimental control over the presentation of stimuli that would be difficult or unethical to create in real-life scenarios (Evans et al., 2015). Overall, carefully formulated vignettes can lead to a more nuanced understanding of phenomena, can be highly generalizable, and can maximize both internal and external validity (Skilling & Stylianides, 2019;

Evans et al., 2015). For these reasons, future research may wish to explore how given responses on the CIRCL corresponds to student behavior in real-life observations.

Lastly, since identification of maladaptive thoughts, emotions, and behaviors are considered to be of greater urgency than measuring the potential range of adaptive alternatives, it was decided that the current measure would primarily focus on adequately assessing the nuances within maladaptive responses rather than providing too many response options that may be too overwhelming or confusing for students. In addition, the CIRCL was created with consideration for the length of time that would be required to complete the newly developed measure in a single sitting. Future researchers may wish to further explore this and assess the impacts of including more varied adaptive response options. Overall, despite these limitations, this research represents the beginning of a new area of research and measure development that will benefit from continued expansion and application. We hope that the current research will stimulate further investigation of this important area.

Directions for Future Research

In addition to those already mentioned, I suggest several avenues for future research that may be helpful for furthering the understanding and utility of the CIRCL. Future research should address the limitations of the present study with the following suggested improvements in methodology while expanding on the current preliminary conclusions. In particular, future research on the current measure should aim to identify and recruit a larger sample size to provide more statistical power for completed analyses and to allow for further analyses of the correlations between subscales on the CIRCL, CASI, CATS, and BASC-3. A larger sample is also expected to be beneficial for gaining

more nuanced insights into the distinguishing qualities or features between the different vignettes and vignette sets and how those differences may impact the strengths and directions of correlations with related measures. Following more extensive research with a larger sample and after further exploring the observed differences across vignette sets, I would recommend that a final version of the CIRCL measure be created to include approximately eight to ten vignettes rather than all 25 vignettes that were included in the current study. This would allow researchers to create a more psychometrically robust version of the CIRCL measure which contains vignettes most predictive of the underlying constructs they are intended to measure as well as allow researchers and clinicians to monitor the length of time required to complete the measure. Additionally, future researchers should aim to obtain a more representative sample with regard to geographic location, age, gender, race, ethnicity, use of special education services, and clinical diagnosis / educational classification as well as apply greater control for confounding variables. Regarding participant ages, since the format of the CIRCL (including providing beliefs, emotional, behavioral, and physiological response options for different hypothetical situations) is conducive to improving self-report research, future research may wish to expand the CIRCL age range to include adolescents (ages 12 to 18) as well as create more focused vignette sets to assess for childhood anxiety, depression, or other areas of concern to further improve the development of individualized treatment strategies. The selection of available vignettes may wish to be expanded to include additional optional vignettes that can be administered in cases when the clinician would like to gain more specific information on different topic areas (e.g., peers, homework, etc.).

Currently, while the CIRCL's recommended clinical uses are primarily in the areas of clinical interpretation, pre- and post-intervention assessment, and treatment planning, additional data to support that recommendation is warranted. It will require continued investigation of its psychometric properties, using children of various ages, backgrounds, and clinical statuses to compile normative data, which will enable the CIRCL to possibly serve diagnostic assessment purposes as well. In addition, future validation studies might seek to explore and improve the CIRCL's ability to distinguish between children demonstrating clinical levels of psychopathology or emotional disturbance and children who do not.

Finally, future research may also wish to explore how measures such as the CIRCL may support the development of children's self-awareness of their adaptive and maladaptive beliefs, emotional, and behavioral responses. For example, research has identified that deficits in cognitive awareness and emotion recognition are associated with depressive symptoms in youth (Vidal-Ribas et al., 2018) and that children's awareness and use of metacognitive strategies such as changing thoughts (e.g., deciding to think about something else) or changing goals (e.g., deciding to want something else) can influence their ability to regulate negative emotions (Davis et al., 2010). Therefore, measures aimed at assessing these deficits or changes in skills over time may be beneficial. In summary, although the generalizability of the current results must be established by future research, the present study has provided an initial contribution to the growing body of evidence in favor of utilizing multidimensional responses and vignettes to better assess irrational beliefs as well as related emotional, physiological, and behavioral responses among youth.

CHAPTER V

Implications for the Practice of School Psychology

The number of students with recognized mental health difficulties has been increasing over time with particular increases noted during the COVID-19 global pandemic (Bitsko et al., 2018; Leeb et al., 2020). Given that CBT and REBT have been recognized as evidence-based practices for treatment of mental health difficulties in children, identifying the specific thoughts experienced by students that lead to their maladaptive emotions and behaviors can be valuable for informing research and clinical work (González-Prendes et al., 2020; Pilecki & McKay, 2013). While there are some existing self-reported measures of automatic thoughts and irrational beliefs in youth, these are limited and only provide information on one aspect (e.g., thoughts) of the integration of thoughts, emotions, and behaviors which both CT and REBT aim to change through changing beliefs. Therefore, a more well-developed measure that reflects current theory and language as well as links thought patterns to associated emotional and behavioral difficulties may assist researchers, clinicians, and school psychologists in allowing assessment to guide individualized treatment.

Considering the far-reaching applications of REBT treatment, identifying how beliefs contribute to maladaptive emotions and behaviors, being able to differentiate between rational and irrational beliefs and using a measure based on REBT principles would be particularly valuable for assisting practitioners in providing informed and effective treatment (David et al., 2017; Hunsley & Allan, 2019; Terjesen et al., 2017). In addition, measuring changes in irrational beliefs and measuring the effectiveness of specific interventions can be beneficial for guiding clinical practice and treatment

planning over time (David et al., 2017; Hunsley & Allan, 2019; Terjesen et al., 2017). Through assessing children's responses to realistic scenarios, clinicians may gain valuable insights to guide individualized targets for change in treatment. Additionally, being able to identify the nuances in each child's responses provides important information which can inform the development of treatment plans that are specific to each child's difficulties and needs. This would also play an important role in early identification and prevention of mental health difficulties that may worsen without intervention. Taken together, the CIRCL may also be used to facilitate identification of potential precursors to later psychopathology as well as proactive treatment of subclinical levels or irrational beliefs or maladaptive response patterns. Utilizing the suggested CIRCL cut-scores discussed in this study, the CIRCL may be able to provide unique identifications of children demonstrating clinical levels of irrationality not captured by other existing measures of irrational beliefs.

Despite its limitations and the variability in correlations observed in the current study across vignette set groups, the preliminary results of this study suggest several theoretical and practical implications. In particular, assessing children's responses to realistic scenarios using a vignette-based self-report measure of irrational beliefs, such as the CIRCL, may help provide valuable insights into how children's thought patterns can impact their responses to different real-life situations. Results of the current study support the value of assessing irrationality in youth including a variety of multidimensional (beliefs, emotional, behavioral, and physiological) responses in order to gain a more nuanced assessment of their functioning. At this time, the CIRCL can be conceptualized as a multidimensional measure that has the potential to serve as a valuable tool for

research and clinical assessment. It appears to be unique in its ability to provide information that other available self-report measures of irrationality in youth (e.g., CASI, CATS, etc.) do not. In addition, this measure provides information that is distinct from the information provided by parent and teacher reports. The CIRCL is able to serve as an aid for clinical interpretation of how a child perceives, and plans to respond to, different situations as well as an aid for treatment planning and pre- and post-intervention assessment. With the use of the current sample, the CIRCL may support diagnostic assessment purposes as well to help distinguish children demonstrating high levels of irrationality from those demonstrating low levels of irrationality. Regarding treatment planning, the CIRCL yields an individualized response profile for each child, and each of the differentiated components can be reviewed for appropriate skills training, school counseling, or therapy over time. For example, if a child consistently responded to the hypothetical situations with frequent ratings of worth - self or withdrawal responses, the clinician might implement more individualized 1) cognitive restructuring strategies to change the specific maladaptive, irrational thoughts indicated by the student to more accurate, helpful interpretations, 2) behavioral targets for change using adaptive coping strategies or emotion regulation skills, and 3) teaching appropriate alternative responses to potentially provoking situations.

APPENDICES

Appendix A

Expert Consent Form

Introduction:

You are being asked to participate in a research study conducted by Alexa Pata, M.S., a doctoral student pursuing a doctoral degree in school psychology at St. John's University. The study is being supervised by Dr. Mark Terjesen, a professor at St. John's University. The decision to participate in this study is entirely up to you. You can decide to stop participating in this study at any time. If you have any questions, you may contact one of the principal investigators.

Procedures:

The Children's Irrational Response Checklist (CIRC), based on the model of REBT, assesses irrational thoughts, behaviors, emotions, and physiological responses in youth via self-report. The purpose of this research is to develop this measure in order to further elucidate Albert Ellis' primary related constructs – demands for fairness, ratings of worth of others, ratings of self-worth, frustration intolerance and awfulizing beliefs- within the context of childhood irrational thought.

If you agree to participate, we request that you review the revised measures we've developed and provide feedback. We are requesting that you review the statements provided and categorize each as primarily targeting one of the aforementioned constructs. Also, we request that you complete a questionnaire regarding your level of training in REBT and details on any REBT-related published works. All information will be de-identified.

Benefits:

There are no direct benefits to you for your participation in this study. However, the information obtained from this study will further advance the knowledge and understanding of the practice of REBT.

Risks, Inconvenience, Discomfort:

There are no physical risks involved with participation in this study. The questions included in the survey are not of a sensitive or personal nature, and the likelihood that you experience any psychological distress or discomfort as a result of your participation is negligible.

Alternatives:

The alternative to this study is not participating. Your decision to not participate in this study will not have any negative implications for you; you may decide to withdraw from the study at any time or choose not to answer specific questions.

Confidentiality: All information from this study will be kept strictly confidential and only seen by the researchers. If any publications result from this study, you will not be identified. Any data from this study will be reported in aggregate form only; individual data responses will not be reported. Data will be transferred in a HIPAA-compliant manner and will be kept in de-identified, password-protected files.

Questions:

If you have any questions regarding this research study, please contact either Alexa Pata, M.S. at alexa.pata17@stjohns.edu or Dr. Terjesen at (718) 990-5860. For questions regarding your rights as a research participant, please contact Dr. Marie Nitopi from the Institutional Review Board at (718) 990-1440.

Thank you very much for your consideration. If you agree to participate, please consent by pressing the button below. Please print a copy of this form for your records.

- I voluntarily give my consent to participate in this research study. I understand that my pressing this button indicates that I have read and understood the information provided here. I understand that my participation is completely voluntary, and that my name will not be tied to the information I am providing. If at any time I do not wish to further participate, I have the right to withdraw my participation.
- I do not wish to participate

Name: _____

Signature: _____

Date: _____

Appendix B

Focus Group Consent Form

Introduction:

Your child is being asked to participate in a research focus group study conducted by Alexa Pata, M.S., a doctoral student pursuing a doctoral degree in school psychology at St. John's University. The study is being supervised by Dr. Mark Terjesen, a professor at St. John's University. The decision to participate in this study is entirely up to you. You can decide to stop participating in this study at any time. If you have any questions, you may contact one of the principal investigators.

Procedures:

In order to better understand the way that children think and behave, we are refining various measures that we would like to administer to children. This study will provide valuable information about how children think, feel, and behave. If you agree to allow your child to participate, we request that your child partake in a virtual *focus group* lead by a graduate student. The group of 3-8 students will discuss the measures – which will include a measure of childhood irrational thoughts and irrational behaviors. There will *be no formal data collected from your child*.

Benefits:

Each student who participates will receive a *\$10 AMAZON gift card*. Further, the information obtained from this study will further advance the knowledge and understanding of the patterns of thoughts and behaviors among youth.

Risks, Inconvenience, Discomfort:

There are no physical risks involved with participation in this study. The questions included in the survey are not of a sensitive or personal nature, and the likelihood that your child experiences any psychological distress or discomfort as a result of your participation is negligible.

Alternatives:

The alternative to this study is not participating. Your decision to not participate in this study will not have any negative implications for you; you may decide to withdraw from the study at any time or choose not to answer specific questions. If you provide consent for your child to participate, your child would also be provided an assent form to sign.

Confidentiality:

All information from this study will be kept strictly confidential and only seen by the researchers. If any publications result from this study, you will not be identified. Any data from this study will be reported in aggregate form only;

individual data responses will not be reported. Data will be transferred in a HIPAA-compliant manner and will be kept in de-identified, password-protected files.

In addition, in the unlikely event that your child shares something during the focus group that warrants breaking confidentiality (e.g., self-harm, harm of others, or child abuse), a parent will need to be present in the home at the time of focus group and provide a contact number where they can be reached.

Questions:

If you have any questions regarding this research study please contact Alexa Pata, M.S. at alexa.pata17@stjohns.edu. Results of the present investigation will be available upon request and all inquiries may be directed to me at the email address above. For questions about you or your child’s rights as a research participant, please contact Dr. Marie Nitopi from the Institutional Review Board at (718) 990-1440. The director of the Institutional Review Board is Dr. Raymond DiGiuseppe. He can be contacted via email at diguise@stjohns.edu.

Thank you very much for your consideration. If you agree to participate, please consent by signing below. You may wish to keep a copy of this form for your records.

- I voluntarily give my consent for my child to participate in this research study. I understand that my signing below indicates that I have read and understood the information provided here. I understand that my child’s participation is completely voluntary, and that their name will not be tied to the information they are providing. If at any time I do not wish to further participate, I have the right to withdraw my participation.
- I do not wish to participate

Child name: _____

Name: _____

Signature: _____

Date: _____

Appendix C

Recruitment Electronic Communication

Hello,

My name is Alexa Pata and I am doctoral student pursuing a doctoral degree in school psychology at St. John's University. I am reaching out to you regarding the opportunity to assist me in developing a new vignette-driven measure for children that aims to assess how students think, feel, and behave in different situations as well as monitor change in those response trends over time. The target participants for this study are children between the ages of 8 and 11 years old (grades 3 to 6). Our goal is to finalize a measure that would assist students, and those that work with them, in identifying and changing unhelpful ways of thinking. This study is being supervised by Dr. Mark Terjesen, a professor at St. John's University.

Some examples of a situation vignettes include:

"Your teacher yells at you in front of the entire class for talking. You weren't talking, it was another student near you."

OR

"You studied really hard for your test. You did your best, but you still failed the test."

Children are then asked to respond to questions such as:

- "What would you think in this situation?"
- "What emotions would you feel in this situation?"
- "What would you do in this situation?"
- "How would your body feel in this situation?"

The next step in developing this new measure further is to provide it to children and their families to complete. During participation, children would be asked to complete a set of questionnaires online that includes measures of irrational thinking, emotional and behavioral functioning, and the new measure of thoughts and responses. The questionnaires would likely take approximately 45 minutes of your and your child's time to complete.

You have the option to choose whether you would like your child to participate in this study. Following parental consent and child assent that they would like to participate, your child would then be allowed to participate in completing the questionnaires. Once you and your child are finished with completing the set of questionnaires, they would then be entered into a random drawing for a chance to win one of three \$150 Amazon gift cards in return for your family's participation.

If you would like to participate, please follow this link to complete a few screening questions and a consent form:

https://stjohns.az1.qualtrics.com/jfe/form/SV_4IrboNnd3UqeTDT

Thank you for your time and consideration.

Sincerely,
Alexa Pata

Alexa K. Pata, M.S.
St. John's University
School Psychology, Psy.D. '22
alexapata17@stjohns.edu

Appendix D

Study Parent Consent Form

Introduction:

Your child is being asked to participate in a research study conducted by Alexa Pata, M.S., a doctoral student pursuing a doctoral degree in school psychology at St. John's University. The study is being supervised by Dr. Mark Terjesen, a professor at St. John's University. The decision to participate in this study is entirely up to you. You can decide to stop participating in this study at any time. If you have any questions, you may contact one of the principal investigators.

Procedures:

In order to better understand the way that children think and behave, we are refining various measures that we would like to administer to children. This study will provide valuable information about how children think, feel, and behave. If you agree to allow your child to participate, we request that your child partake in a study led by a graduate student in which your child would be asked to complete online questionnaires about their thoughts, feelings, and behaviors. The measures will also include a measure of childhood irrational thoughts and irrational behaviors. Your and your child's responses to a screening survey will be used to determine whether your child is eligible for study participation. After completion of the screener, you will be contacted by email or phone and told whether your child meets eligibility for participation. Participation in this study is completely voluntary. Following determining eligibility, if you agree to allow your child to participate in this study, he or she will be sent the questionnaires discussed above to complete (approx. 45 minutes). By giving permission for your child to participate, if deemed eligible, you will be helping us to understand the connections between children's thoughts, feelings, and behaviors.

Benefits:

Each student who participates will be entered into a random drawing for a chance to win *one of three \$150 Amazon gift cards* following the completion of the study. Further, the information obtained from this study will further advance the knowledge and understanding of the patterns of thoughts and behaviors among youth.

Risks, Inconvenience, Discomfort:

There are no physical risks involved with participation in this study. The questions included in the survey are not of a sensitive or personal nature, and the likelihood that your child experience any psychological distress or discomfort as a result of your participation is negligible.

Alternatives:

The alternative to this study is not participating. Your decision to not participate in this study will not have any negative implications for you; you may decide to withdraw from the study at any time or choose not to answer specific questions. If you provide consent for your child to participate, your child would also be provided an assent form to sign.

Confidentiality:

All information from this study will be kept strictly confidential and only seen by the researchers. If any publications result from this study, you will not be identified. Any data from this study will be reported in aggregate form only; individual data responses will not be reported. Data will be transferred in a HIPAA-compliant manner and will be kept in de-identified, password-protected files.

Confidentiality of your child's research records will be strictly maintained by:

- Coding all response forms as numbers and not requiring your child provide his/her name on any questionnaires
- Storing response forms in a secure location separate from consent forms
- Only allowing researchers and psychologists facilitating the study to access the data
- Storing the data in a secure location for a period of 5 years, at which time it will be destroyed
- The program being used incorporates administrative and technical safeguards that meet HIPAA requirements as well as security controls to ensure all communications take place securely and that information cannot be intercepted

Questions:

If you have any questions regarding this research study, please contact Alexa Pata at alexa.pata17@stjohns.edu. Results of the present investigation will be available upon request and all inquiries may be directed to me at the email address above. For questions about you or your child's rights as a research participant, please contact Dr. Marie Nitopi from the Institutional Review Board at (718) 990-1440. The director of the Institutional Review Board is Dr. Raymond DiGiuseppe. He can be contacted via email at diguiser@stjohns.edu.

Thank you very much for your consideration. If you agree to participate, please consent by signing below. You may wish to keep a copy of this form for your records.

- I voluntarily give my consent for my child to participate in this research study. I understand that my signing below indicates that I have read and understood the information provided here. I understand that my child's participation is completely voluntary, and that their name will not be tied to the information they are providing. If at any time I do not wish to further participate, I have the right to withdraw my participation.
- I do not wish to participate

Child name: _____

Name: _____

Signature: _____

Date: _____

Appendix E

Study Student Assent Form

Dear Student,

My name is Alexa Pata and I am doctoral student pursuing a doctoral degree in school psychology at St. John's University. The study is being supervised by Dr. Mark Terjesen, a professor at St. John's University. Right now, we are trying to learn more about the way that children think, feel, and act and would like your help.

If you agree to participate, you will be asked to answer questionnaires about things you may think about, emotions you may feel, and ways you might behave. Your parents have already agreed to allow us to ask you to participate, but the choice is yours. You should only participate if you want to. The questionnaires would take you about 45 total minutes to complete. If you choose to participate, only me and the research assistants will know your answers and your name will not be connected to the questions you answer. It is also important for you to know that there are no right or wrong answers. If you agree to participate, you should know that your teacher, classmates, and even your parents won't know what you've said. We will not tell anyone what you've said with the following exceptions: We are required by law to report to the appropriate authorities if you say that you are being hurt, hurting yourself, or hurting someone else. You should also know that if you decide to help us or if you decide to say "no," your choices will not affect your grades. You may also decide to stop after you start or not answer questions that you don't want to answer. Information from this study will be kept in a locked location for 5 years, at which time it will be destroyed.

For your participation, your family will be entered into a random drawing for a chance to win one of three \$150 Amazon gift cards following the completion of the study. You will also be helping us understand how children act and think. You will be asked questions about different thoughts, emotions, and behaviors. Although unlikely, if any issues or concerns should come up about your participation in this study, you may e-mail us at alexa.pata17@stjohns.edu.

We want to thank you in advance for your help as this will really help us learn more about student behavior and thoughts. You can ask any questions by emailing me at alexa.pata17@stjohns.edu. Also, if you would like to know more about the study, you can e-mail us. For questions about your rights as a participant, you may contact the committee which approves research here at St. John's University, called the Human Subjects Review Board, at (718) 990-1440. You will be given a second copy of this form for you to keep.

Sincerely,
Alexa Pata, M.S.

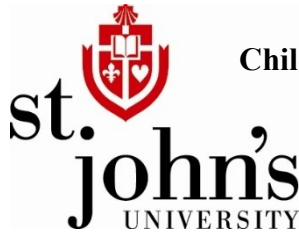
Agreement to Participate

- I agree to participate in the study described above.
 I do not agree to participate in the study described above.

Signature

Date

Appendix F



Children's Irrational Response Checklist (CIRCL)

Directions: Read the following stories and circle ONE response in each section that is MOST TRUE for what you would do in each story situation. Then, circle how strongly you feel that emotion or response on the scale of 1 to 5. There is also an area marked "other" where you can put responses that you might have but are not listed on the page.

1 = Not at all, 2 = A little, 3 = Somewhat/Moderately, 4 = Strongly, and 5 = Extremely/Very strongly

1. Your teacher yells at you in front of the entire class for talking.
You weren't talking, it was another student near you.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|---|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Try to get back at the teacher or other student later for getting me in trouble. (Covert Aggression) 1 2 3 4 5 | My teacher is a TERRIBLE PERSON for yelling at the wrong student. (Ratings of Worth, Other - ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my classmate for getting me in trouble. (Peer Confrontation) 1 2 3 4 5 | I am a LOSER because the teacher yelled at me. (Ratings of Worth, Self - ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | In a loud voice, tell the teacher to stop blaming me! (Adult Confrontation) 1 2 3 4 5 | I CAN'T STAND when I get blamed for things I didn't do. (Frustration Intolerance - FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Politely tell the teacher that it wasn't me. (Healthy/Adaptive) 1 2 3 4 5 | The teacher was wrong, but it is NOT the WORST thing in the world. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysregulation) 1 2 3 4 5 | The teacher SHOULD NEVER have done that! (Demandingness - DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and say nothing for the rest of class. (Withdrawal) 1 2 3 4 5 | It is HORRIBLE that this happened. (Awfulizing - AWF) 1 2 3 4 5 |
| Other: | | | |

2. You are asked to do a presentation and read in front of the whole class.
 You made a mistake and some kids laughed.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Make fun of the other kids later when they make a mistake. (Covert) 1 2 3 4 5 | They are TERRIBLE PEOPLE for laughing at me! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the other kids to stop laughing and apologize. (Peer Confront.) 1 2 3 4 5 | I can't do anything right. I'm so STUPID. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher to make the kids stop laughing. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND making mistakes! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Ignore the kids laughing and continue reading. (Healthy/Adaptive) 1 2 3 4 5 | I don't like making mistakes, but I CAN DEAL with this. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Teachers SHOULD NEVER ask me to do things I don't want to! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Look at the floor and say nothing or leave the classroom. (Withdrawal) 1 2 3 4 5 | Being made fun of is the WORST! (AWF) 1 2 3 4 5 |
| Other: | | | |

3. You studied really hard for your test.
 You tried your best, but you still failed.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Hide the grade from my parents. (Covert) 1 2 3 4 5 | Teachers who write hard tests are BAD PEOPLE. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Tell a friend that they must let me cheat from them on the next test. (Peer Confront.) 1 2 3 4 5 | I am so STUPID for not passing. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher for not giving me a better grade. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND when I try and still fail at something. (FI) 1 2 3 4 5 |

| | | | |
|---------------------------|---|--|--|
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Accept my grade from the teacher and begin studying for the next test. (Healthy/Adaptive) 1 2 3 4 5 | I tried my best but still didn't pass. This DOES NOT make my teacher a bad person. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | The teacher SHOULD NOT have made the test this hard! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Put my head down on my desk and not talk to anyone. (Withdrawal) 1 2 3 4 5 | Failing this test is the WORST thing! (AWF) 1 2 3 4 5 |
| Other: | | | |

4. You stayed late at school and your parent is supposed to pick you up. They forgot so they arrive really late. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Plan on making them late for something in the future. (Covert) 1 2 3 4 5 | They are BAD PEOPLE because they forgot me! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my classmates about why my parent is late. (Peer Confront.) 1 2 3 4 5 | I am a WORTHLESS person because I was forgotten. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parent for making me wait. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that my parent is late! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Tell my parent how I feel. (Healthy/Adaptive) 1 2 3 4 5 | I don't like this, but I CAN handle it. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Parents MUST ALWAYS remember to pick up their children on time. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and do not talk to anyone for the rest of the day. (Withdrawal) 1 2 3 4 5 | Being picked up late is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

5. You work really hard on your homework and it takes a long time.
 When your teacher asks for it, you realize you've left it at home.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Try to copy someone else's homework when the teacher isn't looking. (Covert) 1 2 3 4 5 | My parents are BAD PEOPLE for not checking my homework! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Say something mean to my classmates who did remember their homework. (Peer Confront.) 1 2 3 4 5 | I am so STUPID that I forgot this. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Blame the teacher for why I don't have my homework. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND when I make mistakes like this! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Explain that I left it at home. (Healthy/Adaptive) 1 2 3 4 5 | It was a mistake, but it is NOT the end of the world. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | The teacher MUST ALWAYS give me a 100 on my homework! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Say nothing and look away from my teacher. (Withdrawal) 1 2 3 4 5 | It is TERRIBLE to make a mistake. (AWF) 1 2 3 4 5 |
| Other: | | | |

6. All of your friends were invited to a classmate's party.
 You did not get invited.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Tell my friends that they shouldn't go to the party because I wasn't invited. (Covert) 1 2 3 4 5 | My friends are TERRIBLE PEOPLE for going to a party that I wasn't invited to. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the classmate having the party for not inviting me. (Peer Confront.) 1 2 3 4 5 | I am a LOSER because I wasn't invited. (ROW-S) 1 2 3 4 5 |

| | | | |
|---------------------------|--|--|---|
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight with my parent or teacher about why I did not get invited. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND when I get left out! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Plan something else to do for that day. (Healthy/Adaptive) 1 2 3 4 5 | I wish I was invited, but I CAN HANDLE it if I am not invited. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | I SHOULD ALWAYS be invited to parties! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Don't talk to any of my friends when I see them at school. (Withdrawal) 1 2 3 4 5 | Not getting invited to the party is the WORST thing! (AWF) 1 2 3 4 5 |
| Other: | | | |

7. In gym class, the team captains begin picking their teams.
You are picked last.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Try to ruin the game for everyone so they don't have fun either. (Covert) 1 2 3 4 5 | They are ROTTEN PEOPLE for not picking me earlier! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the team captains for not picking me earlier. (Peer Confront.) 1 2 3 4 5 | I never get picked for teams because I am a LOSER. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the gym teacher about why the team captains didn't choose me. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that others didn't want me on their team! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Play the game anyways and try to do my best. (Healthy/Adaptive) 1 2 3 4 5 | It's frustrating to be picked last but they DON'T HAVE TO pick me earlier. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg) 1 2 3 4 5 | The team captains MUST ALWAYS pick me earlier! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Say that I don't want to play the game anymore. (Withdrawal) 1 2 3 4 5 | This is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

8. Your friends are planning to do something that you think is wrong. They ask you to do it with them and you say "no". They make fun of you for not joining them. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Secretly tell a teacher about their plan to get my friends in trouble. (Covert) 1 2 3 4 5 | My friends are HORRIBLE PEOPLE for making fun of me! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at them for making fun of me. (Peer Confront.) 1 2 3 4 5 | I am a BAD PERSON for not saying "yes" to what my friends wanted me to do. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents for not letting me do the wrong thing with my friends. (Adult Confront.) 1 2 3 4 5 | I CAN'T HANDLE that they are making fun of me! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Tell them how I feel and that I don't like being made fun of. (Healthy/Adaptive) 1 2 3 4 5 | I don't like being made fun of, but I am still a GOOD PERSON. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Friends SHOULD NEVER ask me to do things I didn't want to do. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and never talk to them ever again. (Withdrawal) 1 2 3 4 5 | It is TERRIBLE for my friends to make fun of me because of my answer. (AWF) 1 2 3 4 5 |
| Other: | | | |

9. Your teacher yells at a classmate for making noises when the teacher wasn't looking. The other student didn't do it, it was really you making the noises. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Secretly make noises when the teacher isn't looking. (Covert) 1 2 3 4 5 | The teacher is DUMB and a BAD PERSON for yelling at the wrong person. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Tell my classmate that they must not get me in trouble! (Peer Confront.) 1 2 3 4 5 | I am an AWFUL PERSON for making noises and not telling the truth. (ROW-S) 1 2 3 4 5 |

| | | | |
|---------------------------|--|---|--|
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Keep making noises and laugh at the teacher. (Adult Confront.) 1 2 3 4 5 | It CAN'T DEAL WITH my classmate being upset with me! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Admit to the teacher that it was really me making the noises. (Healthy/Adaptive) 1 2 3 4 5 | It was wrong for me to not tell the truth, but that DOES NOT make me a bad person. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Others MUST NOT get me in trouble or tell on me. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and say nothing for the rest of class. (Withdrawal) 1 2 3 4 5 | It would be TERRIBLE if I told the truth and got in trouble. (AWF) 1 2 3 4 5 |
| Other: | | | |

10. You are starting a new class and are the only new kid in this class.
You don't know any of the other kids or the teacher.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Do something secretly to get attention. (Covert) 1 2 3 4 5 | Everyone in this class is probably BORING and STUPID. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Tell the other kids to get away from me. (Peer Confront.) 1 2 3 4 5 | I am not good at meeting new people because I am a LOSER. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher to change me to a new class. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND not knowing anyone! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Talk to the other kids or try to make friends. (Healthy/Adaptive) 1 2 3 4 5 | Everything is new the first time you try it and I CAN HANDLE making new friends. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Everyone else MUST ALWAYS make me feel more comfortable. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Don't talk to anyone for the whole day. (Withdrawal) 1 2 3 4 5 | Being the new kid is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

11. Your friends start a group and did not ask you to join. You find out that they are making fun of you in the group. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Spread rumors or make fun of them to other people. (Covert) 1 2 3 4 5 | They are BAD PEOPLE for doing this! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my friends. (Peer Confront.) 1 2 3 4 5 | I am STUPID and WORTHLESS! (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents to get my friends in trouble. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that they left me out! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Ask them to stop and tell them that I do not like them making fun of me. (Healthy/Adaptive) 1 2 3 4 5 | It stinks to be left out and made fun of, but I am still a LIKEABLE person and NOT stupid. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Other people MUST NEVER leave me out of a group! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stop going to school or stop talking to everyone. (Withdrawal) 1 2 3 4 5 | Not being included in the group and being made fun of is TERRIBLE! (AWF) 1 2 3 4 5 |
| Other: | | | |

12. You just got a new gift for your birthday and your friend comes over and borrows it. After a week, they tell you that they broke it by accident. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Break one of their toys when no one is looking. (Covert) 1 2 3 4 5 | They are a HORRIBLE PERSON for breaking my toy. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Yell at them or fight with them. (Peer Confront.) 1 2 3 4 5 | I am STUPID for letting them borrow my new gift. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents to get my friends in trouble. (Adult Confront.) 1 2 3 4 5 | I CAN'T HANDLE it when I let people borrow things and they break it! (FI) 1 2 3 4 5 |

| | | | |
|---------------------------|---|---|--|
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Talk to my friend and tell them how I feel. (Healthy/Adaptive) 1 2 3 4 5 | I don't like that my gift is broken, but they are NOT a bad person. It was only an accident. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Friends MUST NEVER break my gifts! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Ignore them at school and don't talk to them anymore. (Withdrawal) 1 2 3 4 5 | It is TERRIBLE that they broke my gift! (AWF) 1 2 3 4 5 |
| Other: | | | |

13. For no reason at all, your friend pushes you on the ground in front of other kids and you get hurt. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Tell mean stories or rumors about them to other people. (Covert) 1 2 3 4 5 | My friend is the WORST PERSON for doing that! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Push them back or yell at them. (Peer Confront.) 1 2 3 4 5 | I am so STUPID because no one likes me. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher to get my friend in trouble. (Adult Confront.) 1 2 3 4 5 | I CAN'T DEAL with it when I am pushed in front of other people! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Talk to my friend and explain how I feel. (Healthy/Adaptive) 1 2 3 4 5 | I don't like that they did that, but I know that I am NOT stupid. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Friends MUST NEVER fight or argue! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and don't talk to anyone for the rest of the day. (Withdrawal) 1 2 3 4 5 | It is AWFUL that my friend pushed me! (AWF) 1 2 3 4 5 |
| Other: | | | |

14. You studied really hard for a test and you wanted to get 100%.
 When you get the test grade back, you see that you got a low grade, made a silly mistake, and did not answer a full page of questions.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Hide or throw away the test grade. (Covert) 1 2 3 4 5 | The other kids are BAD PEOPLE and probably cheaters! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the other kids who got a better grade than me. (Peer Confront.) 1 2 3 4 5 | I am so STUPID for missing that section! (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher that the test was not fair. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND when I make mistakes! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Study more and try harder in the future. (Healthy/Adaptive) 1 2 3 4 5 | I made a mistake, but it is NOT the WORST thing. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | The teacher MUST ALWAYS give me a second chance to complete my test. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Put my head down on my desk or walk out of the classroom. (Withdrawal) 1 2 3 4 5 | Getting a low grade and making mistakes is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

15. You were supposed to complete your part of a group project, but you didn't.
 Your group lost points because you did not do your part.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Hide my project grade from my parents. (Covert) 1 2 3 4 5 | My group members are BAD PEOPLE for not completing the project by themselves! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my group for not reminding me to do my part. (Peer Confront.) 1 2 3 4 5 | I am so STUPID for making this mistake. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher to give me more points. (Adult Confront.) 1 2 3 4 5 | I CAN'T HANDLE my group being upset at me! (FI) 1 2 3 4 5 |

| | | | |
|---------------------------|---|---|--|
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Say sorry to my group and promise to work harder next time. (Healthy/Adaptive) 1 2 3 4 5 | It was a mistake, but I am NOT STUPID. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | My group MUST ALWAYS remind me to do my part of the project. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and say nothing to my group. (Withdrawal) 1 2 3 4 5 | It is AWFUL that we lost points because of me! (AWF) 1 2 3 4 5 |
| Other: | | | |

16. If you got a good grade on your test, your parents promised to take you and a friend to a movie or a game. You did not get a good grade, so you did not go. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Secretly ask my friend to take me to the movies instead. (Covert) 1 2 3 4 5 | My parents are the WORST PEOPLE for not taking me and my friend. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my friend for not helping me with my test. (Peer Confront.) 1 2 3 4 5 | I am a LOSER because it is all my fault that we are not going. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents about not taking me. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that I messed this up for everyone! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Apologize to my friend and plan to try harder next time. (Healthy/Adaptive) 1 2 3 4 5 | I wish I could go to a movie or game, but my parents are NOT the WORST people. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | My parents MUST ALWAYS take us anyway! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and don't talk to my parents for the rest of the day. (Withdrawal) 1 2 3 4 5 | I really wanted to go there and not going is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

17. The teacher calls on you when you didn't raise your hand.
 You don't know the answer to the teacher's question.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Look at other students to try to get the answer. (Covert) 1 2 3 4 5 | This teacher is the WORST PERSON! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight with the student next to me about the answer. (Peer Confront.) 1 2 3 4 5 | I am so STUPID that I wasn't prepared. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher because I didn't raise my hand and don't know the answer. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND when I get called on and I am not prepared! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Answer the teacher's question with my best guess. (Healthy/Adaptive) 1 2 3 4 5 | I wish I didn't get called on, but I CAN HANDLE not knowing the answer. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Teachers SHOULD NEVER call on students who don't know the answer! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Look away from the teacher or say nothing. (Withdrawal) 1 2 3 4 5 | It's AWFUL to not know the answer in front of others. (AWF) 1 2 3 4 5 |
| Other: | | | |

18. You are really excited to go to your friend's birthday party.
 Your parent drives you, but they make a stop on the way that takes a really long time, so you're late to the party.
 How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Make my parents late for something in the future. (Covert) 1 2 3 4 5 | My parents are BAD PEOPLE for making me late! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my friends about not waiting for me to get there. (Peer Confront.) 1 2 3 4 5 | I am a LOSER for being late. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents for making me late. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND being late! (FI) 1 2 3 4 5 |

| | | | |
|---------------------------|---|--|---|
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Explain to my friend what happened and then enjoy the party. (Healthy/Adaptive) 1 2 3 4 5 | I wish I was here earlier, but I CAN HANDLE it. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Parents MUST NEVER make their kids late to parties. (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Say nothing or do not go to the party. (Withdrawal) 1 2 3 4 5 | Being late for a party is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

19. You were late to your sports game because you wrote down the wrong time. Because you were late, your team lost the game. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Secretly try to catch other people making mistakes too. (Covert) 1 2 3 4 5 | My team are BAD PEOPLE for not helping me more. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my team for not reminding me of the correct time. (Peer Confront.) 1 2 3 4 5 | I am so STUPID for getting the time of the game wrong! (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents for not taking me at the correct time. (Adult Confront.) 1 2 3 4 5 | I CAN'T DEAL with letting my team down! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Say sorry to my team for being late and be more careful next time. (Healthy/Adaptive) 1 2 3 4 5 | I wish I had been there on time, but it is NOT the WORST thing to be late or make mistakes sometimes. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | I MUST NEVER be late or make mistakes! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stop talking to the kids on my team or quit the team. (Withdrawal) 1 2 3 4 5 | It's TERRIBLE that we lost and it's all my fault! (AWF) 1 2 3 4 5 |
| Other: | | | |

20. You borrowed your friend's favorite game.
When you try to use it, you accidentally break it.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Hide the broken game or pretend it was already broken. (Covert) 1 2 3 4 5 | My friend is STUPID for letting me borrow their game. (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my friend for not giving me a better game to borrow. (Peer Confront.) 1 2 3 4 5 | I am a TERRIBLE PERSON for breaking it. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents to fix the game for me. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND my friend being upset with me! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Tell my friend sorry for breaking their game. (Healthy/Adaptive) 1 2 3 4 5 | I don't like that the game broke, but I CAN HANDLE if my friend is upset with me for breaking it. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Friends SHOULD NEVER get upset with you for breaking things! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and do not talk to my friend anymore. (Withdrawal) 1 2 3 4 5 | Having them be upset at me would be TERRIBLE! (AWF) 1 2 3 4 5 |
| Other: | | | |

21. Your classmates keep making jokes about you because they think the teacher likes you best.
They keep calling you the "teacher's pet."
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Make mean jokes about the other kids in class. (Covert) 1 2 3 4 5 | They are HORRIBLE PEOPLE for making jokes about me! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at them for making jokes. (Peer Confront.) 1 2 3 4 5 | I am a LOSER for being the "teacher's pet." (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher to get everyone in trouble! (Adult Confront.) 1 2 3 4 5 | I CAN'T HANDLE other people making jokes about me. (FI) 1 2 3 4 5 |

| | | | |
|---------------------------|---|--|---|
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Tell the class how I feel and that I don't like their jokes. (Healthy/Adaptive) 1 2 3 4 5 | I don't like their jokes, but it's NOT the WORST thing. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Other people SHOULD NEVER make jokes about me! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and stop answering the teacher's questions in class. (Withdrawal) 1 2 3 4 5 | It is TERRIBLE for my friends to think badly about me! (AWF) 1 2 3 4 5 |
| Other: | | | |

22. Your family moves to a new place and now you have to ride on a new bus. You don't know anyone on the new bus. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Try to find another way to get to school so I don't have to take the bus anymore. (Covert) 1 2 3 4 5 | The other kids on the bus are BAD PEOPLE for not talking to me first! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at another kid on the bus. (Peer Confront.) 1 2 3 4 5 | I am a LOSER because I am not good at meeting new people. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my parents that I don't want to go on the bus anymore. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND not knowing anyone! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Talk to a person near me and try to make friends. (Healthy/Adaptive) 1 2 3 4 5 | I don't know anyone on the bus yet, but it is NOT AWFUL. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | The other kids MUST ALWAYS talk to me more! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and don't talk to anyone on the bus. (Withdrawal) 1 2 3 4 5 | Today is an AWFUL day because I have to ride on a new bus! (AWF) 1 2 3 4 5 |
| Other: | | | |

23. Your friend wanted to go see a movie. You said "no" so that you could study for your test the next day. Your friend went to the movie and didn't study. The next day you find out that they got a much higher grade than you on the test.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Plan to cheat on the next test. (Covert) 1 2 3 4 5 | My friend is the WORST PERSON for getting a better grade than me! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at my friend for getting a better grade than me. (Peer Confront.) 1 2 3 4 5 | I am a LOSER for not getting a higher grade! (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at the teacher for not giving me a higher grade. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that my friend got a better grade than me! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Tell my friend "Good job" for getting a good grade and plan to study more for the next test. (Healthy/Adaptive) 1 2 3 4 5 | I don't like that I got a lower grade, but it's NOT AWFUL. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | I SHOULD ALWAYS get a higher grade on tests! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and don't talk to my friend anymore. (Withdrawal) 1 2 3 4 5 | It is AWFUL that I didn't say "yes" to the movie! (AWF) 1 2 3 4 5 |
| Other: | | | |

24. Your family celebrates a big holiday where everyone gives gifts. When the day is over, you look and see that you got less gifts than other members of your family and that they got much cooler gifts.
How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|--|--|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Take someone else's gift when no one is looking. (Covert) 1 2 3 4 5 | My family are BAD PEOPLE for not giving me cooler gifts! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the other kids for getting better gifts than me. (Peer Confront.) 1 2 3 4 5 | I didn't get more gifts because I'm a LOSER and NOT good enough. (ROW-S) 1 2 3 4 5 |

| | | | |
|---------------------------|--|--|---|
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at my family members for not giving me more gifts. (Adult Confront.) 1 2 3 4 5 | I CAN'T DEAL WITH not getting better gifts! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Play with the gifts that I did get. (Healthy/Adaptive) 1 2 3 4 5 | I don't like that I didn't get more gifts, but I CAN DEAL with it. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | My family MUST ALWAYS give me the best gifts! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Stay quiet and don't talk to my family for the rest of the day. (Withdrawal) 1 2 3 4 5 | Not getting more gifts is AWFUL! (AWF) 1 2 3 4 5 |
| Other: | | | |

25. You and your friend go to a party where you don't know many people. A lot of people talk to your friend and say how glad they are to see them. They do not say the same thing to you. How do you feel? What do you do? What are you thinking?

| Emotions: (What emotion would you be feeling the MOST?) | Physiological: (How would your body be feeling the MOST?) | Behaviors: (What would you MOST LIKELY do?) | Beliefs: (What would you be thinking the MOST?) |
|--|--|---|---|
| Feel Mad 1 2 3 4 5 | Feel hot and sweaty 1 2 3 4 5 | Say mean things about the other kids at the party. (Covert) 1 2 3 4 5 | The other people are STUPID for not talking to me too! (ROW-O) 1 2 3 4 5 |
| Feel Nervous or Worried 1 2 3 4 5 | Feel your muscles or fists tighten 1 2 3 4 5 | Fight or yell at the other kids for not talking to me more. (Peer Confront.) 1 2 3 4 5 | No one will talk to me because I am a BAD PERSON. (ROW-S) 1 2 3 4 5 |
| Feel Sad 1 2 3 4 5 | Feel your heart pounding or racing 1 2 3 4 5 | Fight or yell at an adult to get the other kids in trouble for not talking to me more. (Adult Confront.) 1 2 3 4 5 | I CAN'T STAND that the other people are not talking to me! (FI) 1 2 3 4 5 |
| Feel Guilty 1 2 3 4 5 | Feel butterflies or pain in your stomach 1 2 3 4 5 | Talk to new people and try to make friends. (Healthy/Adaptive) 1 2 3 4 5 | I want people to talk to me more, but it's NOT AWFUL if they don't. (Healthy/Adaptive) 1 2 3 4 5 |
| Feel Happy 1 2 3 4 5 | Feel tired 1 2 3 4 5 | Cry or get upset. (Emotional Dysreg.) 1 2 3 4 5 | Other people MUST ALWAYS talk to me first! (DEM) 1 2 3 4 5 |
| Feel Jealous 1 2 3 4 5 | Get cold hands 1 2 3 4 5 | Sit alone and say nothing or leave the party. (Withdrawal) 1 2 3 4 5 | It is AWFUL not knowing more people at this party! (AWF) 1 2 3 4 5 |
| Other: | | | |

REFERENCES

- Barter, C., & Renold, E. (2000). "I wanna tell you a story": exploring the application of vignettes in qualitative research with children and young people. *International Journal of Social Research Methodology*, 3(4), 307–323.
<https://doi.org/10.1080/13645570050178594>
- Beck, A. T., Brown, G., Steer, R. A., Eidelson, J. I., & Riskind, J. H. (1987). Differentiating anxiety and depression: A test of the cognitive content-specificity hypothesis. *Journal of Abnormal Psychology*, 96(3), 179–183.
<https://doi.org/10.1037/0021-843X.96.3.179>
- Bennett, K., Manassis, K., Walter, S. D., Cheung, A., Wilansky, T. P., Diaz, G. N., Duda, S., Rice, M., Baer, S., Barrett, P., Boddien, D., Cobham, V. E., Dadds, M. R., Flannery, S. E., Ginsburg, G., Heyne, D., Hudson, J. L., Kendall, P. C., Liber, J., ... Wood, J. J. (2013). Cognitive behavioral therapy age effects in child and adolescent anxiety: An individual patient data meta-analysis. *Depression and Anxiety*, 30(9), 829–841. <https://doi.org/10.1002/da.22099>
- Bernard, M. E., & Cronan, F. (1999). The child and adolescent scale of irrationality: Validation data and mental health correlates. *Journal of Cognitive Psychotherapy*, 13(2), 121–132.
- Bernard, M. E., Ellis, A., & Terjesen, M. (2006). Rational-Emotive Behavioral Approaches to Childhood Disorders: History, Theory, Practice and Research. In A. Ellis & M. E. Bernard (Eds.), *Rational emotive behavioral approaches to childhood disorders: Theory, practice and research*. (pp. 3–84). Springer Science + Business Media. https://doi-org.jerome.stjohns.edu/10.1007/0-387-26375-6_1

- Bernard, M. E. & Laws, W. (1988). *Childhood irrationality and mental health*. Paper presented at the 24th International Congress of Psychology, Sydney, Australia.
- Bernard, M. E., & Terjesen, M. D. (2020). *Rational emotive behavioral approaches to childhood disorders: Theory, practice and research*. In Rational Emotive Behavioral Approaches to Childhood Disorders: Theory, Practice and Research. <https://doi.org/10.1007/978-3-030-53901-6>
- Bernardelli, S., & Terjesen, M. (2018). The Child and Adolescent Scale of Irrationality: Preliminary Validation for an Italian Population. *International Psychology Bulletin (IPB)*, 22(4), 28-39.
- Bitsko, R. H., Holbrook, J. R., Ghandour, R. M., Blumberg, S. J., Visser, S. N., Perou, R., & Walkup, J. T. (2018). Epidemiology and impact of health care provider–diagnosed anxiety and depression among US children. *Journal of Developmental & Behavioral Pediatrics*, 39(5), 395–403.
<https://doi.org/10.1097/dbp.0000000000000571>
- Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer. *Frontiers in Public Health*, 6, 149.
<https://doi-org.jerome.stjohns.edu/10.3389/fpubh.2018.00149>
- Browne, C. M., Dowd, E. T., & Freeman, A. (2010). Rational and irrational beliefs and psychopathology. In D. David, S. J. Lynn, & A. Ellis (Eds.), *Rational and irrational beliefs: Research, theory, and clinical practice*. (pp. 149–171). Oxford University Press.

- Castagna, P. J., Calamia, M., & Davis, T. E., III. (2019). Negative self-statements mediate social anxiety and depressive symptomatology in youth: The role of working memory. *Journal of Child and Family Studies*, 28(6), 1595–1603. <https://doi.org/10.1007/s10826-019-01391-y>
- Conijn, J. M., Smits, N., & Hartman, E. E. (2020). Determining at what age children provide sound self-reports: An illustration of the validity-index approach. *Assessment*, 27(7), 1604–1618. <https://doi-org.jerome.stjohns.edu/10.1177/1073191119832655>
- Crawley, S. A., Podell, J. L., Beidas, R. S., Braswell, L., & Kendall, P. C. (2010). Cognitive-behavioral therapy with youth. In K. S. Dobson (Ed.), *Handbook of cognitive-behavioral therapies., 3rd ed.* (pp. 375–410). Guilford Press.
- Cripps, B. (2017). *Psychometric testing: Critical perspectives*. Chichester, West Sussex, UK: Wiley Blackwell.
- David, D., Cotet, C., Matu, S., Mogoase, C., & Stefan, S. (2017). 50 years of rational-emotive and cognitive-behavioral therapy: A systematic review and meta-analysis. *Journal of clinical psychology*, 74(3), 304–318. <https://doi.org/10.1002/jclp.22514>
- Davis, E. L., Levine, L. J., Lench, H. C., & Quas, J. A. (2010). Metacognitive emotion regulation: Children's awareness that changing thoughts and goals can alleviate negative emotions. *Emotion*, 10(4), 498-510. <http://dx.doi.org/10.1037/a0018428>
- Davis, J. P., Palitz, S. A., Knepley, M. J., & Kendall, P. C. (2019). Cognitive-behavioral therapy with youth. In K. S. Dobson & D. J. A. Dozois (Eds.), *Handbook of cognitive-behavioral therapies., 4th ed.* (pp. 349–382). The Guilford Press.

- De Los Reyes, A., Cook, C. R., Gresham, F. M., Makol, B. A., & Wang, M. (2019). Informant discrepancies in assessments of psychosocial functioning in school-based services and research: Review and directions for future research. *Journal of School Psychology, 74*, 74–89. <https://doi.org/10.1016/j.jsp.2019.05.005>
- DiGiuseppe, R., & Bernard, M. E. (1990). The application of rational-emotive theory and therapy to school-aged children. *School Psychology Review, 19*(3), 268.
- DiGiuseppe, R. A., & Doyle, K. A. (2019). Rational emotive behavior therapy. In K. S. Dobson & D. J. A. Dozois (Eds.), *Handbook of cognitive-behavioral therapies., 4th ed.* (pp. 191–217). The Guilford Press.
- Dozois, D. J. A., Dobson, K. S., & Rnic, K. (2019). Historical and philosophical bases of the cognitive-behavioral therapies. In K. S. Dobson & D. J. A. Dozois (Eds.), *Handbook of cognitive-behavioral therapies., 4th ed.* (pp. 3–31). The Guilford Press.
- Ellis, A. (1955). New approaches to psychotherapy techniques. *Journal of Clinical Psychology, 11*(3), 207–260.
- Erfanian, F., Latifnejad Roudsari, R., Heydari, A., & Bahmani, M. (2020). A Narrative on Using Vignettes: Its Advantages and Drawbacks. 8. 2134-2145. <https://doi.org/10.22038/jmrh.2020.41650.1472>.
- Evans, S. C., Roberts, M. C., Keeley, J. W., Blossom, J. B., Amaro, C. M., Garcia, A. M., Stough, C. O., Canter, K. S., Robles, R., & Reed, G. M. (2015). Vignette methodologies for studying clinicians' decision-making: Validity, utility, and application in ICD-11 field studies. *International Journal of Clinical and Health*

Psychology, 15(2), 160-170. <https://doi-org.jerome.stjohns.edu/10.1016/j.ijchp.2014.12.001>

Feindler, E. L., Adler, N., Brooks, D., & Bhumitra, E. (1993). The Children's Anger Response Checklist. In L. VandeCreek, S. Knapp, & T. L. Jackson (Eds.), *Innovations in clinical practice: A source book*, 12, 337–362. Professional Resource Press/Professional Resource Exchange.

Fraire, M. G., Halldorsdottir, T., & Ollendick, T. H. (2017). Evidence-based interventions for specific phobias in children and adolescents. In L. A. Theodore (Ed.), *Handbook of evidence-based interventions for children and adolescents*. (pp. 267–278). Springer Publishing Company.

González-Prendes, A. A., & Resko, S. M. (2020). Cognitive Behavioral Theory. In *Trauma: Contemporary directions in trauma theory, research, and Practice*. essay, Columbia University Press.

Hafdahl, A. R., & Williams, M. A. (2009). Meta-analysis of correlations revisited: Attempted replication and extension of Field's (2001) simulation studies. *Psychological Methods*, 14(1), 24-42. <https://doi-org.jerome.stjohns.edu/10.1037/a0014697>

Hassan, K., & Adhami, N. (2015). Adaptation and Validation of the Children's Anger Response Checklist for Grades 4–6 Lebanese Students. *Child Indicators Research*. 9. <https://doi.org/10.1007/s12187-015-9352-0>.

Hogendoorn, S. M., Wolters, L. H., Vervoort, L., Prins, P. J. M., Boer, F., Kooij, E., & De Haan, E. (2010). Measuring Negative and Positive Thoughts in Children: An

- Adaptation of the Children's Automatic Thoughts Scale (CATS). *Cognitive Therapy & Research*, 34(5), 467–478. <https://doi.org/10.1007/s10608-010-9306-2>
- Hunsley, J., & Allan, T. (2019). Clinical assessment in cognitive-behavioral therapies. In K. S. Dobson & D. J. A. Dozois (Eds.), *Handbook of cognitive-behavioral therapies., 4th ed.* (pp. 120–144). The Guilford Press.
- Jones, R. G. (1968). A factored measure of Ellis' irrational belief system with personality, maladjustment correlates (Doctoral Dissertation, Texas Tech University, 1969). *Dissertations Abstracts International B*, 29, 4379.
- Kendall, P. C., & Peterman, J. S. (2015). CBT for adolescents with anxiety: Mature yet still developing. *The American Journal of Psychiatry*, 172(6), 519–530. <https://doi.org/10.1176/appi.ajp.2015.14081061>
- Leeb, R. T., Bitsko, R. H., Radhakrishnan, L., Martinez, P., Njai, R., & Holland, K. M. (2020). Mental health–related emergency department visits among children aged <18 years during the COVID-19 pandemic — United States, January 1–October 17, 2020. *MMWR. Morbidity and Mortality Weekly Report*, 69(45), 1675–1680. <https://doi.org/10.15585/mmwr.mm6945a3>
- MacDonald, E. M., Koerner, N., Antony, M. M., Vickers, K., Mastorakos, T., & Kuo, J. (2020). Investigating the therapeutic potential of cognitive bias modification for high anxiety sensitivity. *Journal of Behavior Therapy and Experimental Psychiatry*, 68, 1-9. <https://doi.org/10.1016/j.jbtep.2019.101521>
- Makol, B. A., De Los Reyes, A., Ostrander, R. S., & Reynolds, E. K. (2019). Parent-youth divergence (and convergence) in reports of youth internalizing problems in

psychiatric inpatient care. *Journal of Abnormal Child Psychology*, 47(10), 1677–1689. <https://doi.org/10.1007/s10802-019-00540-7>

Micco, J. A., & Ehrenreich, J. T. (2009). Validity and Specificity of the Children's Automatic Thoughts Scale in Clinically Anxious and Non-clinical Children. In *Cognitive Therapy & Research*, 33(5), 532–536. <https://doi.org/10.1007/s10608-009-9230-5>

Mogoșe, C., Podină, I. R., Sucală, M., & Dobrea, A. (2013). Evaluating the unique contribution of irrational beliefs and negative bias interpretations in predicting child anxiety. Implications for cognitive bias modification interventions. *Journal of Cognitive and Behavioral Psychotherapies*, 13(2A), 465–475.

Mogoșe, C., Ștefan, S., & David, D. (2013). How Do We Measure Rational and Irrational Beliefs? The Development of Rational and Irrational Beliefs Scale (RAIBS) - a New Theory-Driven Measure. *Journal of Cognitive & Behavioral Psychotherapies*, 13(2a), 529–546.

Oud, M., de Winter, L., Vermeulen-Smit, E., Bodden, D., Nauta, M., Stone, L., van den Heuvel, M., Taher, R. A., de Graaf, I., Kendall, T., Engels, R., & Stikkelbroek, Y. (2019). Effectiveness of CBT for children and adolescents with depression: A systematic review and meta-regression analysis. *European Psychiatry*, 57, 33–45. <https://doi.org/10.1016/j.eurpsy.2018.12.008>

Panourgia, C., & Comoretto, A. (2017). Do cognitive distortions explain the longitudinal relationship between life adversity and emotional and behavioural problems in secondary school children? *Stress and Health: Journal of the International*

Society for the Investigation of Stress, 33(5), 590–599.

<https://doi.org/10.1002/smi.2743>

Pas, E. T., Bradshaw, C. P., & Cash, A. H. (2014). Coaching classroom-based preventive interventions. In M. D. Weist, N. A. Lever, C. P. Bradshaw, & J. Sarno Owens (Eds.), *Handbook of school mental health: Research, training, practice, and policy*, 2nd ed. (pp. 255–267). Springer Science + Business Media.

https://doi.org/10.1007/978-1-4614-7624-5_19

Pennequin, V., Questel, F., Delaville, E., Delugre, M., & Maintenant, C. (2020).

Metacognition and emotional regulation in children from 8 to 12 years old. *British Journal of Educational Psychology*, 90(Suppl 1), 1–16. <https://doi->

[org.jerome.stjohns.edu/10.1111/bjep.12305](https://doi-)

Pilecki, B., & McKay, D. (2013). Cognitive Behavioral Therapy Models of Phobias and Pervasive Anxiety. In *Handbook of Child and Adolescent Anxiety Disorders* (pp. 39–48). essay, Springer.

Reynolds, C. R., & Kamphaus, R. W. (2015). *Behavior assessment system for children* (3rd ed.). Bloomington: NCS Pearson, Inc. (BASC–3).

Sampson, H., & Johannessen, I. A. (2020). Turning on the tap: the benefits of using “real-life” vignettes in qualitative research interviews. *Qualitative Research*, 20(1), 56–72. <https://doi.org/10.1177/1468794118816618>

Schniering, C. A., & Lyneham, H. J. (2007). The Children’s Automatic Thoughts Scale in a clinical sample: Psychometric properties and clinical utility. *Behaviour Research and Therapy*, 45(8), 1931–1940.

<https://doi.org/10.1016/j.brat.2006.09.009>

- Schniering, C. A., & Rapee, R. M. (2002). Development and validation of a measure of children's automatic thoughts: the children's automatic thoughts scale. *Behaviour Research & Therapy, 40*(9), 1091. [https://doi.org/10.1016/S0005-7967\(02\)00022-0](https://doi.org/10.1016/S0005-7967(02)00022-0)
- Seligman, L. D., & Ollendick, T. H. (2011). Cognitive-behavioral therapy for anxiety disorders in youth. *Child and Adolescent Psychiatric Clinics of North America, 20*(2), 217–238. <https://doi.org/10.1016/j.chc.2011.01.003>
- Shorkey, C. T., & Whiteman, V. L. (1977). Development of the Rational Behavior Inventory: Initial validity and reliability. *Educational and Psychological Measurement, 37*(2), 527–534.
- Skilling, K., & Stylianides, G. J. (2020). Using vignettes in educational research: a framework for vignette construction. *International Journal of Research & Method in Education, 43*(5), 541–556. <https://doi-org.jerome.stjohns.edu/10.1080/1743727X.2019.1704243>
- Sukhodolsky, D. G., & Scahill, L. (2012). *Cognitive-behavioral therapy for anger and aggression in children*. Guilford Press.
- Szentagotai, A., & Jones, J. (2010). The behavioral consequences of irrational beliefs. In D. David, S. J. Lynn, & A. Ellis (Eds.), *Rational and irrational beliefs: Research, theory, and clinical practice*, pp. 75–97. Oxford University Press.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273-1296. <https://doi.org/10.1007/s11165-016-9602-2>.

- Terán, V. G., Velásquez, E. E., & Fuentes, M. A. (2020). Irrational thinking and psychological distress: A cross-racial/ethnic examination. *Personality & Individual Differences, 164*, 1-6. <https://doi.org/10.1016/j.paid.2020.110102>
- Terjesen, M. D., Duhning, C, Pata, A. K., & Prizer, J. K. (2020). The Current Status of Rational-Emotive and Cognitive Behavior Therapy (RE-CBT) Research with Children and Adolescents. In Bernard, M. & Terjesen, M. D. (Eds). *Rational-Emotive and Cognitive-Behavioral Approaches to Child and Adolescent Mental Health: Theory, Practice, Research, Applications*. Cham, Switzerland: Springer Nature.
- Terjesen, M. D., Kassay, K. S., & Anderson, D. L. (2017). Evaluation of the psychometric properties of a measure of child irrationality. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 35*(4), 413–431. <https://doi.org/10.1007/s10942-017-0269-z>
- Terjesen, M.D., Kassay, K.S., Anderson, D.L., & O'Brien, C. (2020). *A Revised Measure of Irrational Thinking among Youth*. [Unpublished manuscript]. Department of Psychology, St. John's University, New York, United States.
- Terjesen, M. D., Salhany, J., & Scuitto, M. J. (2009). A psychometric review of measures of irrational beliefs: Implications for psychotherapy. *Journal of Rational-Emotive & Cognitive Behavior Therapy, 27*(2), 83–92.
- Thompson, K., D'iuso, D., Schwartzman, D., Dobson, K. S., & Drapeau, M. (2020). Changes in depressed patients' self-statements. *Psychotherapy Research, 30*(2), 170–182. <https://doi.org/10.1080/10503307.2018.1543976>

- Turner, M. J. (2016). Rational emotive behavior therapy (REBT), irrational and rational beliefs, and the mental health of athletes. *Frontiers in Psychology, 7*.
<https://doi.org/10.3389/fpsyg.2016.01423>
- Van Bockstaele, B., van der Molen, M. J., van Nieuwenhuijzen, M., & Saleminck, E. (2020). Modification of hostile attribution bias reduces self-reported reactive aggressive behavior in adolescents. *Journal of Experimental Child Psychology, 194*. <https://doi.org/10.1016/j.jecp.2020.104811>
- Vidal-Ribas, P., Brotman, M. A., Salum, G. A., Kaiser, A., Meffert, L., Pine, D. S., Leibenluft, E., & Stringaris, A. (2018). Deficits in emotion recognition are associated with depressive symptoms in youth with disruptive mood dysregulation disorder. *Depression and Anxiety, 35*(12), 1207-1217.
<http://dx.doi.org/10.1002/da.22810>
- Višlā, A., Flückiger, C., grosse Holtforth, M., & David, D. (2016). Irrational beliefs and psychological distress: A meta-analysis. *Psychotherapy and Psychosomatics, 85*(1), 8–15. <https://doi.org/10.1159/000441231>
- Weller, B. E., Bowen, N. K., & Faubert, S. J. (2020). Latent class analysis: A guide to best practice. *Journal of Black Psychology, 46*(4), 287-311. <https://doi-org.jerome.stjohns.edu/10.1177/0095798420930932>
- Williams, D. R., & Rast, P. (2020). Back to the basics: Rethinking partial correlation network methodology. *British Journal of Mathematical and Statistical Psychology, 73*(2), 187-212. <https://doi-org.jerome.stjohns.edu/10.1111/bmsp.12173>

VITA

| | |
|--------------------------------|---|
| Name | <i>Alexa K. Pata</i> |
| Baccalaureate Degree | <i>Bachelor of Arts, Boston University, Boston MA, Major: Psychology</i> |
| Date Graduated | <i>May, 2017</i> |
| Other Degrees and Certificates | <i>Master of Science, St. John's University, Jamaica NY, Major: School Psychology</i> |
| Date Graduated | <i>May, 2020</i> |