Adverse Childhood Experiences and the Effects on Teachers' Beliefs About Classroom Behavior Management

Hilarie Fotter Kennedy

University of Southern Maine

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ADVERSE CHILDHOOD EXPERIENCES AND THE EFFECTS ON TEACHERS' BELIEFS ABOUT CLASSROOM BEHAVIOR MANAGEMENT

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Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Psychology in School Psychology

The University of Southern Maine

February, 2019

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Hilarie F. Kennedy

February, 2019
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Hilarie Fotter Kennedy, M.S.
Dissertation Advisor: Mark W. Steege, Ph.D.
An Abstract of the Dissertation Submitted
In Partial Fulfillment of the Requirements for the
Degree of Doctor of Psychology
(in School Psychology)

University of Southern Maine

February, 2019

The aim of this survey research pilot study was to determine if there is a relationship that exists between a teacher’s perceptions about their disciplinary style and early life exposure to adverse experiences. The method consisted of two brief questionnaires (the Adverse Childhood Experience questionnaire and the Behavior and Instruction Management Scale) which was completed electronically by 2,149 teachers (response rate 16.51%) practicing within the state of Maine. The Behavior and Instruction Management Scale (BIMS) is a validated measure of teacher beliefs about their behavioral and instructional management practices in their classrooms and the Adverse Childhood Experience (ACE) questionnaire is a validated measure of early life exposure to adverse experiences. Previous research using the ACE questionnaire indicated a strong correlation between a high number of adverse experiences in childhood and increased risk of
developing later negative health conditions, including depression, obesity and heart
disease. Moreover, early adverse experiences can lead to more extreme beliefs in
parenting practices including discipline. This current survey research pilot-study
determined the percentage of teacher who endorsed high levels of adverse childhood
experiences and a possible connection between high levels of early adverse experiences
and classroom behavior management.

In this study 14.5% of teachers reported experiencing at least 4 of the 10 categories
of adverse childhood experiences, which is over double the expected rate based on the
original study. The results of this survey research design were correlated using Spearman’s
rho and found a very weak and statistically nonsignificant correlation of \( r = .010, p = .007, \)
between a teacher’s ACE score and their BIMS score. The significance of this study and
implications for future policy and research are discussed.
ACKNOWLEDGEMENTS

I would like to thank Dr. Mark Steege, Dr. Garry Wickard and Dr. Catherine Fallona for providing tremendous mentorship throughout this process and throughout the time in this doctoral program. Your time, energy and encouragement has made it all possible.

I would also like to thank Dr. Jamie Pratt, Dr. Janis Mallon and Dr. Robert Small for supporting me throughout the internship and dissertation process at USM, with the USM Health and Counseling Center, and with life in general. Your feedback has been immensely helpful, and I am thankful to have had the opportunity to work with each of you.

Special thanks to Dr. Alina Shumsky for providing an outstanding internship experience and unbeatable supervision and mentorship. A true champion for the children of Maine. Additionally, many thanks to my new work family, most notably Lisa Howe. Thank you for being flexible with my many projects.

Additional thanks to Dr. Eric Rossen, who kindly provided insight, thoughtfulness and time to this project. For your amazing inspiration, guidance, and support, thank you.

Finally, thank you to my family. Thank you for supporting me to start, continue and finish my ceaseless passions and dreams (particularly this one, my proudest one). Your contributions of time, energy, support, encouragement have made it all possible, and all worthwhile. To my parents, Raymond and Vivian; thank you for believing in me. To my daughter Brooke, thank you for sharing our time, letting me multitask (at times) and always being you. And to my husband Benjamin, thank you for keeping me afloat, fed, and happy. I couldn’t have done it without you all.
# TABLE OF CONTENTS

LIST OF TABLES .................................................................................................................. pg. viii
LIST OF FIGURES ................................................................................................................ pg. ix

Chapter

1. INTRODUCTION AND LITERATURE REVIEW ......................................................... pg. 1
2. METHODOLOGY ............................................................................................................ pg. 10
   Introduction, Methodology, Sample and Procedure ....................................................... pg. 10
   Instrumentation ............................................................................................................ pg. 13
      Adverse Childhood Experience (ACE) Questionnaire ............................................. pg. 13
      Behavior and Instructional Management Scale (BIMS) ............................................. pg. 15
   Data Analysis ............................................................................................................. pg. 16
   Limitations and Delimitations ..................................................................................... pg. 16
3. RESULTS ....................................................................................................................... pg. 17
   Introduction ................................................................................................................. pg. 17
   Descriptive Results .................................................................................................... pg. 17
   Statistical Analysis ................................................................................................. pg. 21
4. DISCUSSION ................................................................................................................ pg. 25
   Conclusions .............................................................................................................. pg. 25
   Limitations .............................................................................................................. pg. 26
   Recommendations for Policy and Practice ............................................................... pg. 27
   Recommendations for Future Research ................................................................. pg. 28
   Significance of the Study ....................................................................................... pg. 28
REFERENCES .................................................................................................................. pg. 30

APPENDIXES .................................................................................................................. pg. 41
   A. Adverse Childhood Experience (ACE) Questionnaire and permission for use .... pg. 42
   B. Behavior and Instruction Management Scale (BIMS) and permission for use .... pg. 44
   C. Informed Consent and Survey protocol ................................................................. pg. 46
# LIST OF TABLES

Table 3.1 Sample Size……………………………………………….. pg. 17
Table 3.2 Participant Gender Statistics…………………………….. pg. 17
Table 3.3 Participant Teaching Setting…………………………….. pg. 18
Table 3.4 Participant Location……………………………………... pg. 20
Table 3.5 Statistical Analysis……………………………………… pg. 21
Table 3.6 Question Ranking……………………………………….. pg. 23
Table 3.7 ACEs Level Within Participant Population……………… pg. 23
Table 3.8 Correlation Analysis……………………………………… pg. 24
LIST OF FIGURES

Figure 1. Continuum of belief in type of control in the classroom; controlled by teacher or student..............pg. 7

Figure 3.1 Participant responses to gender identification question..................................................pg. 18

Figure 3.2 Participant responses to setting identification question....................................................pg. 19

Figure 3.3 Participant responses to question of County/location where they teach................................pg. 20

Figure 3.4 Histogram depicting the relative distribution of individual total scores on the BIMS survey........pg. 21

Figure 3.5 Histogram depicting the relative distribution of individual total scores on the ACE survey............pg. 22
CHAPTER 1: INTRODUCTION AND LITERATURE REVIEW

More than 2/3 of children within the United States report experiencing an adverse life event by age 16 (La Greca, Boyd, Jaycox, Kassam-Adams, Mannarino, Silverman, Tuma & Wong, 2008). Adverse childhood experiences (including maltreatment, severe illness and natural disasters) have been linked to both internalizing and externalizing symptomatology later in life. This may include higher stress levels, panic attacks, anxiety disorders, depression, personality disorders, and negative attributional behaviors (Bal, Bourdeauhuij, Crombez, & Van Oost, 2005; Kaplan, Labruma, Pelcovitz, Salzinger, Manzel & Weiner, 1999; Lubit, Rovine, Defrancisci, & Eth, 2003; Runyon & Kenny, 2002).

Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss & Marks (1998) surveyed 9,508 adults comparing adverse childhood experiences to measures of adult risk behavior, health status, and disease. They reported that childhood exposure to emotional, physical, or sexual abuse, and household dysfunction was directly related to multiple elevated risk factors for several of the leading causes of death and disorder in adults. The results indicate that children who experience chronic or repeated adversity experience a tremendous lifelong impact on their health and the quality of their lives. More than half of respondents reported at least one (and one-fourth reported 2 or more) exposures within the 7 types of adverse childhood exposures (i.e., abuse: psychological, physical or sexual; household dysfunction: substance misuse, mental illness, mother treated violently, criminal behavior in household). People who had experienced four or more categories of childhood exposure (approximately 6.4% of the population sample), compared to those who had experienced none, had a 4- to 12-fold increased likelihood for multiple health risk factors including alcoholism, drug abuse and depression; and each of the adult health risk behaviors and diseases that were reported had a significant p-value ($p < .001$) confirming a very
strong correlation (Felitti, et al., 1998).

When someone experiences intense adversity in childhood there can be both immediate and lasting effects. The body reacts physiologically to both physical and emotional stress. The mammalian response to stress involves two primary systems: the hypothalamic-pituitary-adrenal axis (HPA) and the sympathetic nervous system (Hornor, 2015). The sympathetic nervous system, also known as the fight, flight or freeze response regulates the acute stress response, releasing cortisol and adrenaline into the bloodstream; whereas the HPA axis regulates the body’s slower responses to stress. Hornor (2015) discusses this sequence in her article to primary nurse practitioners and explains that

“if a stress of an adverse event does not go away, the HPA axis remains activated, resulting in increased pituitary sensitivity and cortisol spikes [when triggered].

The chronic activation of the HPA axis results in modifications of brain structures, synapses, receptors, and neuro-hormones, and dendrite complexity is diminished (p. 192-3).”

Moreover, Hornor asserts, increased levels of cortisol can delay maturation of sensory receptors and decreases the volume of the hippocampus. It is widely agreed that exposure to childhood adversity is associated with physiological dysregulation across multiple biological systems; most notably the immune, metabolic, and nervous systems (Felitti, 2009).

Research documents lasting changes due to childhood adverse events to include a host of potential physical, emotional, behavioral and/or social problems affecting an individual’s ability to regulate, identify, and express their emotions and can lead to the creation of a fixed view or set of beliefs about the world (Bal, et al., 2005; Kaplan et al., 1999; Runyon & Kenny, 2002). Early exposure to adverse events can lead to fixed and lasting beliefs about a person’s sense of self and
their sense of safety in the world and acting as motivation in future behaviors (DiLillo & Damashek, 2003; Douglas, 2000; Ruscio, 2001). Or, given appropriate and effective supports the response to adverse experiences can be resolved and a person can accept their experiences and develop resiliency. Adverse life experiences and traumatic events are not entirely synonymous, however they both produce the same stress response and can lead to the same lasting effects.

Trauma, derived from the Greek word for “wound,” is defined by the American Psychiatric Association’s Diagnostic and Statistical Manual, 5th Edition (DSM-5) which specifies a traumatic event as actual or threatened death to self, if to a family member or close friend, must have been violent or accidental; and that such exposure through media, television, movies or pictures does not qualify (p. 221). Since 1988, the publication date of the earliest recorded standardized psychological assessment of traumatic experiences in the Mental Measurement Yearbook, there have been multiple approaches used to measure the effect of adverse or traumatizing experiences. This Mental Measurement Yearbook includes 14 entries of published standardized measures available to school psychologists and other psychometric trained professionals. These include the Trauma and Attachment Belief Scale, the Trauma Symptom Checklist, and the Trauma Symptom Inventory, second edition; available from multiple common publishers. Many of these are self-report questionnaires that use Likert-scale scoring to determine category clusters whereby a respondent’s responses can be scored and compared to what would be expected in a typical population.

Other measures include less formal means and can be self-scored and/or more easily accessed online. One validated and widely researched tool, the Adverse Childhood Experience (ACE), measures several categories of relatively common adverse childhood experiences in a cumulative tally. Since the initial study results were published, broadening our understanding of
commonality and the effects of these experiences, multiple new articles and studies have been conducted looking at the prevalence and consequences of adverse childhood experiences. For example, Murphy, Steele, Dube, Bate, Bonuck, Meissner, Goldman & Steele compared the responses of 75 urban women to both the ACE questionnaire and the Adult Attachment Interview (AAI). They found higher rates of adverse childhood experiences in four or more categories of adverse childhood experiences in an urban clinical sample compared with either an urban community sample or the original ACE Study cohort from Kaiser Permanente and suggested that using the ACE as a screener may help to quickly identify those who may benefit from additional support. Additionally, this clinical sample with high rates of adverse childhood experiences (4 or more) reported also demonstrated the lowest frequency of secure attachment classifications according to the AAI measure, suggesting a dose-response link, whereby the greater number of adverse childhood experiences increased the likelihood of less secure attachment responses on the AAI.

A parent who experiences early life adversity may develop dramatic effects on their parenting behavior, and on their children’s development. For example, Banyard (1997) conducted a secondary analysis of archived data on 518 low-income mothers who had experienced sexual abuse in childhood and reported more negative views of self as parent and greater use of physical punishment strategies. DiLillo & Damashek (2003) conducted a meta-analysis of current research on parenting characteristics of women who endorsed a history of childhood sexual abuse and reported significant associations between childhood sexual abuse and several aspects of parenting including anxiety over intimate aspects of parenting, higher rates of permissive parenting, difficulty establishing boundaries, higher likelihood of using physical discipline, and higher risk of physically abusing one’s children. Moreover, intergenerational trauma research, which refers to trauma that passes through generations, has found that maltreatment is more likely to be present in new generations if it was present in the parent’s childhood than if no trauma existed. Factor
intercorrelations among 383 study participants between family abuse, sexual abuse and family neglect and poor parenting found medium intercorrelations, \( r = 0.37, 0.21, \) and 0.45 respectively, \( p < 0.001 \) (Newcomb & Locke, 2001).

A history of experiencing adverse events may affect a person’s health outcomes and their beliefs about the world and their role in it, and in doing so will often also require a person to adapt biologically as well, leaving them more vulnerable to a host of emotional and physical problems including depression, obesity, and heart disease. A 2010 report published by the National Scientific Council on the Developing Child reported children who experience adverse events can begin to view the world as dangerous and unpredictable and develop ridged beliefs which support their maladaptive internal cognitive distortions about the world and their role in it. Moreover, they report persistent fear and anxiety can affect young children’s learning and biological brain development. Theoretically, we might expect that a similar history of childhood adverse childhood experiences to also affect a teacher’s attitudes towards managing his or her classroom, including patterns of behavior and beliefs around classroom behavior management; however, we do not know how a history of adverse childhood experiences might affect a teacher’s beliefs and behaviors in the classroom.

Classroom behavior management is one of many responsibilities of a classroom teacher. The literature generally uses classroom management as an umbrella term that encompasses teacher efforts to oversee the activities in the classroom including student behavior, and student interactions and learning, whereas discipline typically refers to the structures and rules describing the behaviors expected of students, and the teacher efforts to ensure that students comply with those rules (Rimm-Kaufman & Sawyer, 2004; Shih, Wu, Lai & Liao, 2015). One of the ways this has been measured and conceptualized was introduced by Wolfgang and Glickman.

Wolfgang and Glickman (1980, 1986) suggested the terms non-interventionists, interactionalists, and interventionists to classify the three basic schools of thought they believe
teachers often fall into with their reported disciplinary beliefs (see Figure 1.). These three schools of thought might be considered on a continuum where on one end, non-interventionist teachers emphasize the importance of student control. For example, teachers viewed as non-interventionists emphasize a supportive role with the child’s own attempts to identify solutions. On the other end of the continuum, interventionists emphasize teacher control. For example, teachers might believe that the way for students to learn to behave is for a teacher to systematically set and consistently teach the standards in the classroom. And, in the middle interactionalist teachers prefer joint control. For example, an interactionalist teacher prefers a reciprocal relationship where one is confronted by the expectations of being a member of a class and abiding by rules that have been decided by all. In this way interactionalists tend to emphasize a parity relationship between teacher and student in arriving at joint solutions, whereas interventionists tend to stress the role of the teacher as a planner and organizer of the environment for shaping the student's behavior and non-interventionists would stress the importance of student choice and self-determination. Figure 1. illustrates this conceptual relationship.
Two instruments that were developed to investigate classroom behavior management and/or discipline: the Pupil Control Ideology (PCI) (Willower et al., 1967) and the Beliefs on Discipline Inventory (BDI) (Glickman & Tamashiro, 1980; Wolfgang & Glickman, 1986). Based on the Beliefs on Discipline Inventory (Wolfgang & Glickman, 1980), Martin and colleagues developed the Attitudes and Beliefs on Classroom Control Inventory (ABCC) (Martin, Yin, & Baldwin, 1998; Martin, Yin, & Mayall, 2007). The construct validity of this instrument was examined through factor analysis, resulting in the development of a new assessment call the Behavior and Instructional Management Survey (BIMS) (Martin & Sass, 2010). Construct validation of the instrument included both a factor analysis and a discriminate and convergent validity study ($n = 476$). Results established separate relationships between the two subscales (Instructional Management and Behavior Management), which provided the evidence for discriminate validity. Comparison of responses on both the BIMS and the Ohio State Teacher Efficacy Scale (OSTES) ($n=760$) measure the concept of teachers’ judgments about their abilities within three dimensions,
Efficacy for Instructional Strategies, Efficacy for Classroom Management, and Efficacy for Student Engagement provided the evidence for concurrent validity.

Furthermore, Martin & Sass (2010) demonstrated that the Behavior Management scale was significantly related to the Instructional Management scale and the Classroom Management scale but not the Instructional Strategies or Student Engagement scales. As the researchers expected, Behavior Management related more to managing the classroom and instruction than to instructional strategies or student engagement. Based on these findings, the BIMS scale demonstrated adequate discriminant and convergent validity, particularly for the 12-item shortened versions (Instruction Management and Behavior Management subscales). Instruction Management being defined as a teacher’s instructional goals and methodologies including aspects such as monitoring seatwork and structuring daily routines and instructional approaches used. Behavior management is defined as a teacher’s efforts (both pre-planned and reactive) to prevent student misbehavior. This includes reward systems and providing opportunities for student input.

Sass, Lopes, Oliveira & Martin (2016) reported that the BIMS, regardless of which 12-item subscale version is used, performed relatively well and recommended it as a tool suitable for use in research and practice. They collected a sample of 760 Portuguese teachers and measured for concurrent validity which was determined based on associations with: perceived student engagement, perceived instructional strategies, and perceived classroom management, and found that correlations were strong particularly for the subscales of the BIMS and the Ohio State Teacher Efficacy Scale: student engagement subscale ($r$ factors ranging from 0.46 to 0.52, $p < .001$, $R^2 = 0.24$). As described by Martin and Sass (2010), the shortened subscale version of the BIMS is both a promising and emerging instrument to identify, define, and measure the aspects of teachers’ beliefs toward managing behavior and/or instruction.
Understanding how a teacher’s own personal experience of adverse childhood experiences might affect the education they provide is currently not reflected in the research. Moreover, if 2/3 of children experience adverse childhood experiences possibly leading to trauma or other traumatizing experiences, it is possible that a portion of teachers have their own histories of childhood adversity or trauma as well.
CHAPTER 2 METHODOLOGY

Introduction to the Study

The purpose of this study was twofold. The first was to identify the degree to which teachers report a history of adverse childhood experiences. The second was to determine the relationship between early life exposure to adverse experiences and teachers’ classroom management beliefs. To examine this relationship, two brief questionnaires (the Adverse Childhood Experience questionnaire and the Behavior and Instruction Management Scale) were sent to and completed electronically by 2,149 teachers (response rate 16.5%) practicing within the state of Maine. By correlating items on the questionnaires, the relationship between adverse experiences and disciplinary style was more fully elucidated.

Methodology

In order to conduct the study, survey research methodology was used in this study as surveys are useful in describing the characteristics of a large population. A survey is a data collection tool used to gather information about individuals and is commonly used in psychology research to collect self-report data from study participants (Ponto, 2015). Validity, or the extent to which the measurements of the survey provide the information needed to meet the purpose of the study, must be evaluated in several areas including content, predictive, concurrent and construct in order to describe and minimize any possible deviations from the desired outcome. A sampling plan must evaluate the size of the population being studied, the appropriate sample size, and how the survey was administered. Finally, the survey instrument and questions must be carefully considered for appropriate measurement and content for the purpose of the study.

After conducting the surveys, the unidentified data were scored to determine the amount of ACEs present in the sample compared to the average population. BIMS responses were also scored,
following which a correlation was conducted. Correlation is used to determine the extent to which two or more variables are related among a single group of people and there must not be any attempt within the study to manipulate the variables being measured (Gravetter & Wallnau, 2013). Items from the two surveys were correlated to determine if there was a statistically significant correlation between teachers who have experienced adverse childhood experiences and their disciplinary beliefs. This is a descriptive study to find out if teachers in Maine report adverse childhood experiences to the same degree as the general population and for those who do report, is there a relationship between teachers who have reported adverse experiences in childhood and their classroom behavior management beliefs. Given past research, it was hypothesized that there is a relationship between these two variables. Correlation coefficients can range from -1 to 1 with a coefficient of .2 (-.2) are considered to be weak, a coefficient of .6 (-.6) is considered to be moderate, and a coefficient of .75 (-.75) is considered to be strong.

The following terms are defined for use in this study:

*Adverse Childhood Experiences* – Exposure to abuse or household dysfunction during childhood.

*Classroom Behavior Management* - Provisions and procedures necessary to establish and maintain an environment in which is safe and in which learning can occur. This includes discipline and positive behavioral support systems to proactively manage problem behaviors.

*Teacher Beliefs* – Personal constructs that provide an understanding of a teacher’s practice.

*Traumatic Event* – An event that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs.

**Sample**

An invitation to the survey was sent electronically to approximately 13,500 Maine teachers. This email invitation asks the teachers to participate in a brief 5-8-minute survey for the researcher on teacher adverse childhood experiences and beliefs on classroom behavior management. In order
to ensure an adequate participant response rate, respondents are assured complete anonymity and given a chance to win an Amazon gift card for their participation, with approximately 5% winning a $5.00 gift card. All email invitations were sent to registered teachers in the State of Maine from all regions within the state, and serving varying populations, including general and special education.

**Procedures**

An email inviting participants to the survey was sent to the teachers’ email addresses. Participants were given a total of three weeks to complete the survey. Reminders were sent to their email addresses after 1 week and again after 2 weeks. Participants could follow a link from the email to a Survey Monkey portal set up for this pilot-study. In order to decrease the likelihood of teachers possibly underreporting both/either of their personal histories including adverse childhood experiences and classroom beliefs for research, all efforts were made to keep participant anonymity and sense of safety. Results were securely collected through the Survey Monkey platform. Survey data were collected and analyzed in such a way as to ensure participant anonymity. Respondents were not required to provide any identifying information. Participants were also not able to access the results of their responses, but were given means for further discussion, assistance or debriefing by the principal investigator at the end of this study. After completion of the survey, participants were given a link to voluntarily access the Amazon Giveaway site to potentially be awarded a gift card. A total of 67 gift cards were awarded to approximately 5% of participants. These two sites were not connected in any other way.

The survey included six sections total. The first was an understanding of consent and collection of basic demographic data (i.e., grade level and setting taught, etc.). The second was an electronic version of the BIMS. The third section was an electronic version of the ACE questionnaire. The fourth section collected basic demographic data. The fifth section focused on
debriefing the participants. The sixth section was a link to the Amazon Giveaway site. This ensured disconnection of participants’ survey response with their identity. Results are reported as follows:

1.) number of teachers reporting high and low levels of adverse childhood experiences (ACEs), and
2.) correlations ACEs and BIMS scores using a Spearman’s rho correlation. Items from each scale were summed to obtain a total score. The total score for the BIMS was correlated with two types of ACE score categories, Low (0-3), and High (4-10). Finally, a Spearman’s rho correlation analysis using SPSS 23 (IBM, 2017) yielded a single correlation coefficient which could then be used to confirm the hypothesis or not.

**Instrumentation**

The measures that were used in this study were the Adverse Childhood Experience (ACE) Questionnaire and the Behavior and Instructional Management Scale (BIMS).

*Adverse Childhood Experience (ACE) Questionnaire*

The CDC-Keiser ACE study was conducted in the late 1990s to study the effects of early life trauma and increased incidence of negative effects later in life. The ACE questionnaire looks at 3 categories of adverse experience: childhood abuse, neglect, and household challenges, and respondents endorse either the presence of this kind of experiences described by each item and are given a score from 0-10 based on how many types of adverse experiences are reported. The ACE questionnaire was developed through the use of several published surveys including the Conflicts Tactics Scale, the Wyatt, and the 1988 National Health Interview Survey. All of the questions are introduced with “While you were growing up during the first 18 years of your life….” Questions cover three categories of childhood abuse, psychological (2 questions), physical (2 questions), or contact sexual abuse (4 questions), and criminal behavior (1 question) in the household. Results of the CDC-Keiser ACE study indicated that the level of positive responses ranged from 3.0% (mother
or step-mother hurt by gun or knife) to 25.6% (childhood exposure to substance abuse). Felitti et al. reported a total of 52% experienced at least one category of adverse childhood exposure, one-fourth reported at least two and 6.2% reported four or more exposures (pg. 245). Responses on the ACE survey were categorized as None (0), Low (1-3) or High (4-10).

The use of the ACE survey is well established in the literature. For example, Dube, Williamson, Thompson, Felitti & Anda (2004) conducted a reliability analysis of the ACE questionnaire using a test-retest procedure among a population of over 40,000 participants (response rate of 68%), selecting 658 participants for the study. The average amount of time in between surveys was 20 months. Using the kappa coefficient to estimate the test-retest reliability which can range from -1 to +1, with +1 representing perfect agreement, values ≥ .75 are excellent and values between .40 and .75 represent good agreement. Statistics for weighted kappa ratings were reported as ranging from .52 to .72. The lowest ratings being for the question of witnessing one’s mother being threatened or hurt with a weapon. Overall, discordance was uncommon, with the highest being within physical abuse questions. There was no statistically significant variation in kappa values by age, gender or education of the respondents. Additionally, Hardt and Rutter (2004) conducted a meta-analysis of approximately 49 retrospective reports in adulthood of major adverse experiences in childhood, and concluded that there is often a substantial rate of false negatives but false positives appear to be rare.

As previously described, the ACE questionnaire is available for download and free for use from multiple places online and in print, including the CDC website. The questionnaire asks participants to complete 10 questions with either a yes or no response. Scores are tallied and a total score represents the level of early adverse experiences the participant has experienced. A reproduction of this survey is available in Appendix A.
Behavior and Instructional Management Scale (BIMS)

The BIMS is a relatively brief, psychometrically sound instrument that measures a teachers' perceptions or beliefs of their approaches to both behavior management and instructional management. It is composed of two subscales, Behavior Management and Instructional Management, with 24 items total or 12 items per subscale. The subscales can be administered independently of each other or together.

A 6-point Likert response scale from “strongly agree” to “strongly disagree” is utilized and scoring for some items is reversed. A score for each subscale is obtained by averaging responses across all items or by means of factor analysis. According to the continuum originally suggested by Wolfgang and Glickman (1980, 1986), endorsement of an item reflects the degree of control the teacher asserts over students. High subscale scores indicate a more controlling, interventionist approach while lower scores are indicative of a less controlling belief in the dimension of classroom management style being asked about.

The instrument validation study consisted of 650 certified teachers from three (two urban, one rural) public school districts in the southwestern United States. Demographic information indicates the sample is broadly representative of most areas of the country. The final set of items revealed a two-factor solution with factors 1 and 2 explaining 31.80 and 22.84 percent of variance, respectively. Additional support for the two-factor model was achieved from the model fit statistics, $\chi^2 (43)= 92.153, p< .001, CFI= .978, TLI= .966, RMSEA= .076, SRMR= .050$, revealing that each item had large and statistically significant factor loadings on its hypothesized factor but the interfactor correlation was fairly small ($r = .12$), suggesting these factors are measuring unique constructs. A reproduction of this questionnaire is available in Appendix B.
Data Analysis

Data were screened for acceptable criteria. Teacher responses on the ACE survey were examined and then the scores of the BIMS and the ACE were correlated using Spearman’s rho.

The following hypotheses were tested:

1. The level of ACEs reported by teachers in Maine should reflect expected levels from current research.

2. The level of correlation between ACE scores and the BIMS may reflect those with high levels of Adverse Childhood Experiences endorse more extreme beliefs on classroom behavior management.

Limitation and Delimitations

1. Subjects in this study were delimited to those teachers in public elementary, middle and high schools across the state of Maine.

2. Responses were limited to those respondents who agreed to participate in the study and this limitation may in some way skew the data, suggesting a possible self-selection bias.

3. The participants may not complete the survey honestly, suggesting a possible response bias.

4. Possible confounding variables were considered and two were included for analysis: teacher gender and setting.
CHAPTER 3 RESULTS

Introduction

A total of 13,506 invitations were sent out, with 491 email invitations sent back as electrically undeliverable, leaving a total of 2,149 people choosing to participate by completing the survey, indicating a response rate of approximately 16.51% (see Table 3.1).

Table 3.1

<table>
<thead>
<tr>
<th>Sample Size</th>
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<tbody>
<tr>
<td>Number of invitations</td>
<td>13,506</td>
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<tr>
<td>Undeliverable invitations</td>
<td>491</td>
</tr>
<tr>
<td>Respondents</td>
<td>2,149</td>
</tr>
</tbody>
</table>

Note: Response rate = 16.51%

Descriptive Results

Of those who responded, 487 (22.7%) identified as male, 1649 (76.7%) identified as female and 8 (0.4%) identified as “other” (see Table 3.2) offering answers such as: “transgender,” “no preference,” “questioning,” and “nonbinary.” Figure 3.1 displays these outcomes in a bar graph format.

Table 3.2

<table>
<thead>
<tr>
<th>Participant Gender Statistics</th>
<th>Frequency</th>
<th>Percent</th>
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<td>0.4</td>
</tr>
<tr>
<td>Male</td>
<td>487</td>
<td>22.7</td>
</tr>
<tr>
<td>Female</td>
<td>1649</td>
<td>76.7</td>
</tr>
<tr>
<td>Total</td>
<td>2149</td>
<td>100.0</td>
</tr>
</tbody>
</table>
With regard to participant work setting, most teacher participants categorized their work as primarily with general education students ($n = 1906, 88.7\%$). Less identified as working primarily with special education students ($n = 21, 1.0\%$) and even fewer reported working primarily with English language learners ($n = 9, 0.4\%$) (see Table 3.3). For a graphic representation of this outcome, see Figure 3.2.

Table 3.3

<table>
<thead>
<tr>
<th>Participant Teaching Setting</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other (please specify)</td>
<td>208</td>
<td>9.7</td>
</tr>
<tr>
<td>General education students</td>
<td>1906</td>
<td>88.7</td>
</tr>
<tr>
<td>Special education students</td>
<td>21</td>
<td>1.0</td>
</tr>
<tr>
<td>English Language Learner Students</td>
<td>9</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>2149</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Interestingly, nearly 10 percent ($n = 199, 9.6\%$) selected the “other” option, offering answers such as “all students”, “Alternative education students”, “gifted students”, and “a mix/combination of students”.

There are 16 counties in the State of Maine. Responses were collected from all 16 counties within the state, with the highest percentage coming from the southern most populated areas: Cumberland ($n = 428, 19.9\%$) and York ($n = 293, 13.6\%$). See Table 3.4 below for specific rate and percentages of participants by county and Figure 3.3 for a graphical representation of this outcome.
Table 3.4

Participant Location

<table>
<thead>
<tr>
<th>County</th>
<th>Frequency</th>
<th>Percent</th>
<th>County</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Androscoggin</td>
<td>182</td>
<td>8.5</td>
<td>Oxford</td>
<td>143</td>
<td>6.7</td>
</tr>
<tr>
<td>Aroostook</td>
<td>117</td>
<td>5.4</td>
<td>Penobscot</td>
<td>214</td>
<td>10.0</td>
</tr>
<tr>
<td>Cumberland</td>
<td>428</td>
<td>19.9</td>
<td>Piscataquis</td>
<td>34</td>
<td>1.6</td>
</tr>
<tr>
<td>Franklin</td>
<td>68</td>
<td>3.2</td>
<td>Sagadahoc</td>
<td>47</td>
<td>2.2</td>
</tr>
<tr>
<td>Hancock</td>
<td>101</td>
<td>4.7</td>
<td>Somerset</td>
<td>75</td>
<td>3.6</td>
</tr>
<tr>
<td>Kennebec</td>
<td>196</td>
<td>9.1</td>
<td>Waldo</td>
<td>62</td>
<td>2.9</td>
</tr>
<tr>
<td>Knox</td>
<td>48</td>
<td>2.2</td>
<td>Washington</td>
<td>70</td>
<td>3.3</td>
</tr>
<tr>
<td>Lincoln</td>
<td>62</td>
<td>2.9</td>
<td>York</td>
<td>293</td>
<td>13.6</td>
</tr>
<tr>
<td>Total</td>
<td>2149</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.3 Participant responses to question asking which county they teach. This bar graph includes participants from all counties within the State of Maine.
Statistical Analysis

In reviewing the BIMS distribution, the mean (M = 44.5928) was slightly lower than the median (\(P_{50} = 45.0000\)) with a standard deviation of 7.64861 (see Table 3.5). Overall the sample appears to represent a normally distributed sample with a slightly positive skew (see Figure 3.4).

Table 3.5

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIMS</td>
<td>44.5928</td>
<td>45.0000</td>
<td>7.64861</td>
<td>17.00</td>
<td>67.00</td>
<td>50.00</td>
</tr>
<tr>
<td>ACEs</td>
<td>1.5058</td>
<td>1.0000</td>
<td>1.92421</td>
<td>0.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>

Figure 3.4  Histogram depicting the relative distribution of individual total scores on the BIMS survey.

*Figure 3.4  Distribution of total participant BIMS scores. This bar graph demonstrates a relatively normal distribution rate among teacher participants.*
In reviewing the ACEs distribution, the mean ($M = 1.5058$) and was lower than the median ($P_{50} = 1.000$) with a relatively small standard deviation of 1.92421. Review of the data displayed graphically demonstrates a highly negative skew (see Figure 3.5). This resulted in a non-parametric correlation (Spearman’s rho) being selected for use in further statistical analysis over Pearson’s $r$.

![Figure 3.5 Histogram depicting the relative distribution of individual total scores on the ACE survey.](image)

In reviewing the frequency of positive responses per ACE question, Table 3.6 depicts the most commonly reported adverse childhood experience type. The items at the top of the list are the least frequently reported and the items at the bottom were the most frequently reported. In this sample, the most frequently reported experiences were parental separation or divorce, household drug or alcohol misuse or mental health issues while the
least common were reports of physical abuse in the home, lack of financial resources or security and imprisoned household family members.

Table 3.6

<table>
<thead>
<tr>
<th>Question Ranking</th>
<th>DIFFICULTY</th>
<th>AVERAGE SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q22 Did a household member go to prison?</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Q17 Did you often feel that...You didn’t have enough to eat, had to wear dirty clothes, and had no one to protect you?  -or- Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Q19 Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her?  -or- Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?  -or- Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Q14 Did a parent or other adult in the household often...Push, grab, slap, or throw something at you?  -or- Ever hit you so hard that you had marks or were injured?</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Q16 Did you often feel that...No one in your family loved you or thought you were important or special?  -or- Your family didn’t look out for each other, feel close to each other, or support each other?</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>Q15 Did an adult or person at least 5 years older than you ever...Touch or fondle you or have you touch their body in a sexual way?  -or- Try to or actually have oral, anal, or vaginal sex with you?</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>Q13 Did a parent or other adult in the household often...Swear at you, insult you, put you down, or humiliate you?  -or- Act in a way that made you afraid that you might be physically hurt?</td>
<td>7</td>
<td>18%</td>
</tr>
<tr>
<td>Q21 Was a household member depressed or mentally ill or did a household member attempt suicide?</td>
<td>8</td>
<td>26%</td>
</tr>
<tr>
<td>Q20 Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?</td>
<td>9</td>
<td>27%</td>
</tr>
<tr>
<td>Q18 Were your parents ever separated or divorced?</td>
<td>10</td>
<td>27%</td>
</tr>
</tbody>
</table>

As the statistical analysis presented in Tables 3.7 and 3.8 reveal, while the correlation between the BIMS and the ACE were very weak overall, the percentage of teachers who identified having at least 4 ACEs in their personal histories before the age of 18 (approximately 14.5%) which was significantly higher than the expected 6.2% reported in the original 1998 ACE study. The correlation between the respondents ACE score and their BIMS score was $r = .010, p = .865$; providing a correlation that was very weak and without statistical significance.

Table 3.7

<table>
<thead>
<tr>
<th>ACEs level within population</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High ACEs</td>
<td>311</td>
<td>14.4718</td>
</tr>
<tr>
<td>Low ACEs</td>
<td>1838</td>
<td>85.5282</td>
</tr>
</tbody>
</table>
Table 3.8

Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>BIMS</th>
<th>ACEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman's rho</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIMS</td>
<td>Correlation Coefficient</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>311</td>
</tr>
<tr>
<td>ACEs</td>
<td>Correlation Coefficient</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.865</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>311</td>
</tr>
</tbody>
</table>

In review, results indicates a sample relatively representative of the population included in this study; teachers in Maine public schools. The total sample size \((n = 2,149)\) produced a response rate of 16.51% which might suggest the possibility of self-selection bias. However, given that current literature reports that web survey modes generally have lower response rates (about 10% lower on the average) than mail or telephone survey modes (Shin & Fan, 2008; Fan & Yan, 2010) might help account for these lower than ideal rates. Demographic data collected revealed similar characteristics to those expected including gender, teacher setting, and location within the state. Results from survey data responses demonstrated above expected levels of adverse childhood experiences reported yet a very weak correlation and clinically insignificant correlation between those with high levels of adverse childhood experiences reported and extreme beliefs endorsed on the BIMs measure (i.e., total score also high or alternatively, relatively low) meaning there is no difference in belief patterns detected from these results between teachers who reported high levels of adverse experiences in childhood and those who did not.
CHAPTER 4 DISCUSSION

Conclusions

The purpose of this study was to find out if teachers in Maine report adverse childhood experiences to the same degree as the general population and for those who report, is there a relationship between teachers who have experienced adverse childhood experiences and their disciplinary beliefs. A relationship between exposure to adverse childhood experiences and beliefs on classroom management in teachers was theorized as relevant literature indicates that exposure to high levels of adverse childhood experiences may affect a person’s health outcomes and their beliefs on the world and their role in it. Moreover, research shows that a parent who experiences early life adversity are likely to exhibit dramatic effects on their parenting behavior, and on their children’s development (Banyard, 1997; DiLillo & Damashek, 2003, Newcomb & Locke, 2001).

Invitations to participate in the survey were sent out to 13,506 teachers in the State of Maine and over a total of 3 weeks over 2,100 individuals completed the survey. The respondents were found to be broadly representative of the teachers in Maine, with representation from all 16 counties, several types of classroom settings (though responses were largely from general education teachers) and unsurprisingly, representing a predominantly female (approx. 77%) population.

Results of this study demonstrated two primary conclusions. First, the percent of teachers who reported a history of 4 or more adverse childhood experiences was found to be significantly above the expected 6.2% reported in the original ACE study published by Felitti et al, (1998). Specifically, of the 2149 respondents, 311 of them (approximately 14.5%) endorsed at least 4 of the items or more on the ACEs measure. The second
conclusion reached through a comparison of BIMS scores and ACEs scores through correlation analysis using Spearman’s rho, the correlation coefficient was found to be very weak and without statistical significance ($r = .010, p = .865$).

Therefore, conclusions drawn from review of initial hypotheses with results from current findings are as follows: 1.) While despite having higher incidence of adverse childhood experiences, this teacher sample did not demonstrate adverse effect by expressing extreme beliefs on classroom management. And, 2.) while the incidence of high ACEs levels was higher than expected, the average and vast majority of the teacher participants endorsed relatively neutral scores on the BIMS, reporting that they believe in a relative balance of power and control in the classroom between teacher and student.

**Limitations**

There are several limitations of this study that should be noted. First, it is possible a self-selection bias existed among reporters whereby those who chose to participate were compelled to because of their own personal histories, thereby skewing the results. A lower than ideal response rate might suggest the potential presence of self-selection bias; which remains a significant limitation of this study. Despite this, there remained a higher than expected percentage of teachers who reported having experienced a high degree of adverse childhood experiences (14.5% of teachers reported 4 ACEs or higher while the expected was approximately 6.2%); which might contradict results expected if there was a significant self-selection bias whereby respondents were more likely to under-report adverse childhood experiences than over-report. However, this study remains limited to further illuminate of these topics.

Second, an understanding of the types and amount of professional development that
teachers had accessed and how this might have changed their beliefs on classroom management is not assessed in this study. However, it could be expected that this practice of engaging in professional development may theoretically be a mediating variable in teachers who have experienced high levels of trauma in developing more extreme beliefs on classroom behavior management.

Third, while the sample was sufficient for many of the analyses originally proposed, it was limited to a population from a relatively homogeneous northeastern state of Maine. The likelihood of these results being replicated in other states within the United States is unknown.

Fourth, as noted previously and possibly the greatest limitation of this study was the use of “outdated” language contained within the survey questions. This perception of the questions themselves may have led participants to choose more neutral responses on the BIMS questions as described in voluntary follow up emails provided from participants.

Recommendations for Policy and Practice

Prior studies have shown the expected rate of individuals within a population who endorse a high level of adverse childhood experiences to be around 6.4%, which was lower than was reported by teachers in this study, approximately 14.5%. This may suggest that teachers as a group experience more adverse childhood experiences than other populations of individuals; however further research would need to confirm or refute these results. Moreover, teachers have historically demonstrated, by and large, presented with strong abilities to engage in positive and supportive relationships as an adult and caretaker which might indicate high levels of resiliency or that despite experiencing high rates of adverse
childhood experiences do not develop extreme beliefs around classroom behavior management.

Improving our understanding of the unique needs of teachers and supports that would benefit them and their students. Therefore, this should remain a focus of both ongoing discussion among school and community-based decision-making leaders. Children who experience an adverse event and have a caring and trusted adult in their lives are significantly better able to cope and move on with their lives to become productive and prosocial members of their community and society. Teachers appear to understand this plight for students better than most. As a result, in many ways, understanding how we can better support the needs of teachers will allow us to better serve the needs of students as well.

**Recommendations for Future Research**

Additional research that extends these findings to more diverse samples is recommended; exploring the prevalence of level of ACEs and disciplinary beliefs across varying populations would help to further explore and/or support or disconfirm these results. In addition, exploring the reasons for the high rates of ACEs reported might be valuable to the literature. Such analysis could add additional details about how best to support both teachers and students in the school and larger community they live in.

**Significance of the Study**

This study is significant because it explores a topic that is currently lacking from the literature, an exportation into the possible correlation between a teacher’s history of adverse life experiences and their disciplinary beliefs. Results of this study demonstrated that the correlation between these two things was found to be very weak and without
statistical significance ($r = .010, \, p = .865$). Interestingly however, the percentage of teachers who reported high levels of ACEs was over double the expected rate outlined in current literature. Despite limitations, the results of this pilot study suggest an interesting combination of reporting in teachers on the measures used in this study and in this way may add to the current literature and offer possible directions for future research.
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http://www.developingchild.net


Stress and Health, 27(5), 420-429. doi:10.1002/smi.1394


APPENDIXES

Appendix A.................................................................pg. 42
  ACE Questionnaire
  Permission for Use

Appendix B.................................................................pg. 44
  Behavior and Instructional Management Scale (BIMS)
  Permission for Use

Appendix C.................................................................pg. 46
  Survey Protocol:
    Informed Consent
    BIMS Rating Scales
    ACE Questionnaire
    Demographic Questions
    Debriefing
    Amazon Gift card Giveaway
APPENDIX A

ACE Questionnaire

Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household often …
   Swear at you, insult you, put you down, or humiliate you?
   or
   Act in a way that made you afraid that you might be physically hurt?
   Yes  No  If yes enter 1  

2. Did a parent or other adult in the household often …
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes  No  If yes enter 1  

3. Did an adult or person at least 5 years older than you ever…
   Touch or fondle you or have you touch their body in a sexual way?
   or
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes  No  If yes enter 1  

4. Did you often feel that …
   No one in your family loved you or thought you were important or special?
   or
   Your family didn’t look out for each other, feel close to each other, or support each other?
   Yes  No  If yes enter 1  

5. Did you often feel that …
   You didn’t have enough to eat, had to wear dirty clothes, and had no one to protect you?
   or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   Yes  No  If yes enter 1  

6. Were your parents ever separated or divorced?
   Yes  No  If yes enter 1  

7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
   or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   Yes  No  If yes enter 1  

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes  No  If yes enter 1  

9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes  No  If yes enter 1  

10. Did a household member go to prison?
    Yes  No  If yes enter 1  

Now add up your “Yes” answers: _______  This is your ACE Score
Permission for Use

Dear Hilarie,

The ACE Study surveys are in the public domain. There is no fee or special permission required for their use. Please see the official ACE Study website at: http://nces.ed.gov/aces

Kind regards,

Carol

On Sep 1, 2017, at 10:24 AM, Hilarie Potter <hilarie.fotter@maine.edu> wrote:

Hello,

I am a doctoral candidate in School Psychology at the University of Southern Maine and would like to use the ACES measure in my dissertation where I will be studying if there is a link between teacher’s history of trauma and their disciplinary beliefs. Before I do this, however, I want to be sure that using the ACES measure in this will is acceptable, appropriate, and authorized. Thank you for your time and attention.

Kind regards,

Hilarie

Hilarie Potter
Doctoral Candidate in School Psychology
University of Southern Maine

Graduate Assistant/Care Manager/Director Student, Campus Life / University Health and Counseling Services (UHCS) | GRP Chairperson, Student Representative Maine Association of School Psychologists (MASP) | Advocacy and Diversity Chair, Maine Student Association of School Psychologists (MaineSASP)

Signature Strengths: Learner – Intrap – Focal – Futuristic – Restorative

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## APPENDIX B

### Behavior and Instructional Management Scale (BIMS)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Slightly agree</th>
<th>Slightly disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I nearly always intervene when students talk at inappropriate times during class. (BM1)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I use whole class instruction to ensure a structured classroom. (IM1)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. I strongly limit student chatter in the classroom. (BM2)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. I nearly always use collaborative learning to explore questions in the classroom. (IM2)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. I reward students for good behavior in the classroom. (BM3)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*6. I engage students in active discussion about issues related to real world applications. (IM3)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. If a student talks to a neighbor, I will move the student away from other students. (BM4)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. I establish a teaching daily routine in my classroom and stick to it. (IM4)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*9. I use input from students to create classroom rules. (BM5)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*10. I nearly always use group work in my classroom. (IM5)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*11. I allow students to get out of their seat without permission. (BM6)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*12. I use student input when creating student projects. (IM6)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. I am strict when it comes to student compliance in my classroom. (BM7)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*14. I nearly always use inquiry-based learning in the classroom. (IM7)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15. I firmly redirect students back to the topic when they get off task. (BM8)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16. I direct the students' transition from one learning activity to another. (IM8)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17. I insist that students in my classroom follow the rules at all times. (BM9)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*18. I nearly always adjust instruction in response to individual student needs. (IM9)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>19. I closely monitor off task behavior during class. (BM10)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>20. I nearly always use direct instruction when I teach. (BM10)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>21. I strictly enforce classroom rules to control student behavior. (BM11)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>22. I do not deviate from my pre-planned learning activities. (IM11)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>23. If a student's behavior is defiant, I will demand that they comply with my classroom rules. (BM12)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*24. I nearly always use a teaching approach that encourages interaction among students. (IM12)</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Bolded items represent the 12 items used for the abbreviated scale. Although items are labeled here as IM and BM, these markers did not appear on the version completed by the subjects.

* = item is reverse scored.
Permission for Use

From: Nancy Martin  
Subject: Re: ABCC-R Inventory  
Date: November 27, 2017 at 10:56 AM  
To: Hilarie Fotter  
Cc: Daniel Sass

Hilarie,

Thank you for your interest in our work. I no longer grant permission for use of the ABCC or the ABCC-R. We published a higher quality instrument, the Behavior & Instructional Management Scale (BIMS), and you definitely have my permission to use the BIMS. I believe the BIMS (attached) will serve your purposes better than the ABCC-R.

I wish you the best of luck with your study.

--

Nancy K. Martin, Ed.D.
Associate Vice Provost — Core Curriculum & QEP
Professor of Educational Psychology
The University of Texas at San Antonio
One UTSA Circle
San Antonio, TX 78249

Phone: 210-458-5191
Fax: 210-458-5189
Email: nancy.martin@utsa.edu
Core Curriculum Web Site: provost.utsa.edu/corecurriculum
Web Site: www.utsa.edu/coreqep
Office Location: Graduate Studies & Research Building 2.210

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From: Hilarie Fotter <hilarie.fotter@maine.edu>
Date: Friday, November 24, 2017 at 10:56 AM
To: Nancy Martin <nancy.martin@utsa.edu>
Subject: Abcc-R Inventory

Dr. Martin,

I am writing to obtain permission to use the ABCC-R inventory in my research project to obtain my Psy.D. in School Psychology from the University of Southern Maine. Will you please connect me to the contact person for this?

Good afternoon Nancy,

Thank you very much for the resource. I think this is a very useful tool and I hope to incorporate it into my dissertation research exploring if a connection can be made between a teacher’s previous life trauma and their disciplinary style.

Kind regards,

Hilarie

Hilarie Fotter
Doctoral Candidate in School Psychology

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## APPENDIX C

Survey Protocol

### Teacher Research Survey

1. Teacher Survey

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**Thank you for participating in this survey. Your feedback is important.**

University of Southern Maine
CONSENT FOR PARTICIPATION IN RESEARCH

**Project Title:** Childhood Trauma and the Effects on Teachers’ Beliefs about Classroom Behavior Management

**Principal Investigator:** Hilarie Fotter Kennedy, Doctoral Candidate in School Psychology, University of Southern Maine email: hilarie.fotter@maine.edu
Faculty advisor: Mark Steege Ph.D., Professor of Educational Psychology and School Psychology, email: mark.steege@maine.edu

**Introduction:**
As a teacher in the State of Maine, you have been asked to participate in this research project in partial fulfillment of the requirements for the degree of Doctor in Psychology in School Psychology at USM. Please read this form. Your participation is voluntary.

**Why is this study being done?**
The purpose of this study is to compare teachers who were exposed to trauma as children to teachers who were not and to determine if there are significant differences in these teachers’ attitudes and perceptions about their own classroom behavior management style. The purpose of the study is to see how correlated trauma is with teachers’ beliefs on classroom behavior management. There are no consultative or financial interests relating to this study.

**Who will be in this study?**
This survey was sent to all teachers registered at this time with the Maine Department of Education. This survey will be sent out to approximately 12,000 individuals.

**What will I be asked to do?**
All participants are asked to participate in a brief 5-8 minute survey. During this time participant will be asked to answer questions from both the Behavior and Instructional Management Survey (BIMS) and the Adverse Childhood Experiences questionnaire (ACE). There is no collection of identifiable information, and participants will be given a chance to win a $5 Amazon Gift Card upon completion of the survey. There is approximately a 5% chance of winning.

**What are the possible risks of taking part in this study?**
Participants will be asked to recall traumatic events in their lives. The survey instrument was designed with that in mind. There is debriefing information at the end, and if you need to speak with someone directly about the nature of this survey or your reaction to it, you can contact principal investigator Hilarie Fotter at (207) 619-4599 for further assistance.
What are the possible benefits of taking part in this study?
There is a slight chance that through participation in this survey participants will gain greater self-awareness of their own beliefs and histories. Additionally, participants have the opportunity to win a $5 Amazon Gift Card upon completion of the survey. There is approximately a 5% chance for any participant of winning.

What will it cost me?
Participants are not expected to incur any costs as a result of participation in the research.

How will my privacy be protected?
This survey is designed to be anonymous, please do not include any information anywhere on the survey that may individually identify you or anyone else. Data will be encrypted using industry standards with access to persons minimized and any additional research records will be kept on a password protected hard drive in the office of the Principal Investigator. Please note that the Institutional Review Board may review the research records. Data transferred as a result of this survey will be compiled through the Survey Monkey Pro platform which employs multiple measures to ensure participant privacy and security. Survey data is privately owned by the Principal Investigator and will be securely stored on password-secured servers located in the United States and other locations in which SurveyMonkey has offices. Data will be permanently removed from the Survey Monkey platform upon the completion of this study. For more information on this you can follow this link to the SurveyMonkey Privacy Policy. Results of this survey will be reported through the Principal Investigator's doctoral dissertation. This will then be published through the USM School Psychology webpage and the USM Libraries and Databases.

What are my rights as a research participant?
Your participation is voluntary. If you choose not to participate, it will not affect your current or future relations with the University or with the Maine Department of Education. You are free to withdraw from this research study at any time, for any reason. If you choose to withdraw from the research there will be no penalty to you and you will not lose any benefits that you are otherwise entitled to receive.

If you choose not to participate there is no penalty to you. The Institutional Review Board (IRB) for the Protection of Human Subjects at the University of Southern Maine has reviewed the use of human subjects in this research. The IRB is responsible for protecting the rights and welfare of people involved in research.

What other options do I have?
All individuals have the option not to participate in this survey.

Whom may I contact with questions?
The researcher conducting this study is Hilari E. Potter Kennedy, M.S., and faculty advisor Mark Steege, Ph.D. For questions or more information concerning this research you may contact them at (207) 619-4599, hilari.e.potter@maine.edu or (207) 780-5309, mark.steege@maine.edu.

If you have any questions or concerns about your rights as a research subject, you may call the USM Human Protections Administrator at (207) 228-8434 and/or email usmrio@maine.edu.

Will I receive a copy of this consent form?
You may print/keep a copy of this consent form.

By entering the survey I am giving my consent to take part in this research and am doing so voluntarily.
Teacher Research Survey

2. **For each statement below, please mark the response that best describes what you do in the classroom.**

There are no right or wrong answers, so please respond as honestly as possible.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I nearly always intervene when students talk at inappropriate times during class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I strongly limit student chatter in the classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I reward students for good behavior in the classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. If a student talks to a neighbor, I will move the student away from other students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I use input from students to create classroom rules.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I allow students to get out of their seat without permission.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am strict when it comes to student compliance in my classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. I firmly redirect students back to the topic when they get off task.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. I insist that students in my classroom follow the rules at all times.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. I closely monitor off task behavior during class.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. I strictly enforce classroom rules to control student behavior.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. If a student's behavior is defiant, I will demand that they comply with my classroom rules.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Each question below begins with:

While you were growing up, during your first 18 years of life:

* 13. Did a parent or other adult in the household often ... Swear at you, insult you, put you down, or humiliate you? -or- Act in a way that made you afraid that you might be physically hurt?
   ○ Yes
   ○ No

* 14. Did a parent or other adult in the household often ... Push, grab, slap, or throw something at you? -or- Ever hit you so hard that you had marks or were injured?
   ○ Yes
   ○ No

* 15. Did an adult or person at least 5 years older than you ever ... Touch or fondle you or have you touch their body in a sexual way? -or- Try to or actually have oral, anal, or vaginal sex with you?
   ○ Yes
   ○ No

* 16. Did you often feel that ... No one in your family loved you or thought you were important or special? -or- Your family didn’t look out for each other, feel close to each other, or support each other?
   ○ Yes
   ○ No

* 17. Did you often feel that ... You didn’t have enough to eat, had to wear dirty clothes, and had no one to protect you? -or- Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   ○ Yes
   ○ No
18. Were your parents ever separated or divorced?
   - Yes
   - No

19. Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her? -or- Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? -or- Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   - Yes
   - No

20. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   - Yes
   - No

21. Was a household member depressed or mentally ill or did a household member attempt suicide?
   - Yes
   - No

22. Did a household member go to prison?
   - Yes
   - No
Teacher Research Survey

4. Final questions

* 23. I primarily work with
   - [ ] General education students
   - [ ] Special education students
   - [ ] Other (please specify)
   - [ ] English Language Learner Students

* 24. My gender is
   - [ ] Male
   - [ ] Female
   - [ ] Other (please specify)

* 25. The county I primarily teach in is

   [ ]
Teacher Research Survey

5. Debriefing

Thank you for participating in this survey! Because your information was not taken, there is no way to provide you with what your answers might mean.

If you felt discomfort with answering these questions, please consider accessing these resources at your convenience.

Maine Community Resource Referrals......211
Intentional Warm Line..............................1-866-771-9276
Statewide Crisis Line..............................1-888-568-1112
Domestic Violence Services......................1-866-834-HELP/4357
Sexual Assault Response Services..............1-800-313-9900
National Suicide Prevention Lifeline...........1-800-237-TALK/8255
Immediate Medical Care..........................911
Follow the link below to enter to win a $5 Amazon gift card!

Amazon Giveaway Entry Link