

Kirmser Undergraduate Research Award Reflective Essay:

Project Title: Adverse Childhood Experiences and Influences on School Competency in
Elementary-Aged Children

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Selecting and Refining the Topic

Following a unanimous interest within our research team, we focused on pediatric trauma disorders. Based on dialogue with our research advisor regarding project guidelines, we further moved toward a study of Adverse Childhood Experiences (ACEs). Our initial efforts to narrow our topic included researching different clinical disorders relevant to ACEs. However, we quickly identified a gap in clinical literature and research that applied prescriptive diagnoses to pediatric presentations of trauma and instead began gravitating toward newer research. Within our reading of newer research, we discovered the need for comprehensive examination not just of pediatric trauma but of how ACEs impact pediatric behaviors. We wanted to understand how ACEs could impact children's social and learning environments. This led to our ultimate research topic of ACEs and their influences on school competency in elementary-aged children.

Research Strategies

Our early research strategies primarily consisted of using pre-existing research to inform a need within the social science and mental health fields for pediatric trauma studies. First, we gathered research that already existed between ACEs and academic performance and ACEs and adaptive behaviors. For the organization, we kept a running document of such studies throughout the entirety of our project, specifically noting studies that reported similar findings to one another, as well as those that provided conceptual and definition-based support for our own hypothesis. By far, one of the most integral studies to our research found through our library search was the Blodgett study. This study not only provided a necessary breakthrough in our search for trauma-related academic studies in children but led us to similar sources that formed the majority of our literature review.

Further, we initially chose a panel study which will follow the same group of participants a longer period. However, after re-examining and expanding our literature review of existing longitudinal studies that followed the development of diagnostic trauma, we noted a need to change from our panel format to a cohort format. While both formats will allow us to observe participant groups in the long-term, the cohort study will help us to observe more diverse groups with the similar conditions. This fits better with the purpose of our research, as we particularly wanted the ability to note the onset of trauma with changes in academic and social behaviors.

Library Research Tools

Library resources played an integral role in assisting and developing our research. Access at Manhattan Public Library and Hale Library to reference books such as the *Diagnostic and Statistical Manual of Mental Disorders*, and directions from reference librarians to specific journals in our subject area improved our preliminary exploration of our topic significantly. Not only did this allow us to operate our research on an efficient timeline, but guided us throughout our research in determining where within the literature to find comprehensive sources on our topic.

We were also able to get support from our subject librarian, Ms. Khendra Spahr, to further assist in our library research. Using her suggested search techniques from a course-wide presentation, as well as a brief individual group meeting with our research team, we were directed to the Education Resources Information Center. As she outlined, ERIC proved to be a more succinct resource tool for the academic portion of our research. Ultimately, both studies that influenced our measurements of academic progress within our research were found within or as a related search of the ERIC database.

Finding information

Because there is so little research on our topic, finding studies that supported our research hypothesis was particularly difficult. We realized early on in our literature review that, instead of looking for existing literature that studied our same variable relationships, we would need to look for studies that examined our individual variables. Thus, in addition to searching for studies that supported the relationship between ACEs and academics, we also focused our techniques on keywords and looked for studies that addressed *pediatric trauma*, *adaptive behaviors*, or *elementary grade scaling*. In searching by individual variable, we were able to find better material that addressed our research and helped develop further research questions that we explored in our methods section.

Evaluating Information

As a team, our research group determined that the sources we ultimately would use needed to be published within the last five to six years so as to keep current with the changing nature of clinical practices and mental health research. Though this was our timeframe for source publication, we sought out sources within the last year to two years as a preferred option. Further, as our topic was of a sensitive nature, we equally necessitated that the majority of our sources, particularly those examined more exhaustively, needed to be of peer-reviewed nature to ensure they met clinical and ethical standards. Thus, while online articles were used to inform us of avenues of interest, these were not considered supportive of our hypothesis or research unless cited from government resources, and instead served as the basis for database searches for more comprehensive sources.

Methods for evaluating sources included their relevance to our study variables: ACEs, pediatric and adaptive behaviors, and academic progress. Our team also considered the country

of origin in which studies took place, as we particularly wanted to examine the American education system and clinical practices that would serve local relevance to Kansas.

Some sources initially seemed to fit our rubric for effective sources, though later, as we narrowed our topic and changed data collection methods, were considered no longer relevant after re-evaluation. This was particularly present in the selection and narrowing of our variables. Our beginning conversation on our research subject also considered an additional variable: the developmental effects of trauma in childhood. Accordingly, as we narrowed this out of our topic, we re-evaluated sources that supported these aspects and began editing out those that no longer supported our modified research subject. We additionally began pulling citations from those which authenticated our variable definitions and established a line of reasoning for our hypothesis.

**Adverse Childhood Experiences and Influences on School Competency in Elementary-
Aged Children**

Group 1

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Abstract

The purpose of this proposal is to study the complex associations between Adverse Childhood Experiences (ACEs) and academic competency in elementary-aged students. Our study proposes in the presence of ACEs, a disruption in a child's normal behavioral processing occurs. This disruption then correlates with lower academic performance and behavior. Our research uses a five-year, longitudinal, cohort study. The Pediatric ACEs and Related Life Events Screener will be used to measure different levels of ACEs. Additionally, we integrate educator evaluations of academic progress by using summative and formative grade assessments to measure the level of school competency. The results of our study show the impairing nature of ACEs during early childhood, and the necessity of studying and treating ACEs at the pediatric level.

Keywords: Adverse Childhood Experiences, Academic Competency, Adaptive Behaviors

Introduction

Adverse Childhood Experiences (ACEs) can include various forms of abuse, neglect, and overall dysfunction in a child's life. Experiences that fall into the 10 general diagnostics for ACEs include emotional, physical, or sexual child abuse, emotional or physical child neglect and household dysfunction like domestic violence, substance abuse, mental illness, criminal activity, or parental absence (Gu, 2022). In the United States alone, the national average for children aged 0-17 years exposed to two or more adverse experiences is 14% -- with multiple states, including Kansas, reporting individual population averages of 17% or higher in the same age group (America's Health Rankings, 2022). Research in academic and behavioral studies suggests an increase in ACEs is associated with increased rates of academic failure, truancy, and behavioral dysregulation (Blodgett & Lanigan, 2018, p. 137). Due to the significant and unique nature of ACES in elementary-aged children, this research project's goal is to provide a comprehensive approach to studying the relationship between ACEs and academic performance in elementary settings.

In a five-year longitudinal study with a cohort format, we hope to follow around 90 elementary-aged children with documented cases of ACEs as they progress through primary school. We hope to add to the existing literature on negative ACE effects by providing a more detailed analysis of pediatric ACEs. This will be facilitated by utilizing the newer Pediatric ACEs and Related Life Events Screener (PEARLS; *Collaborative Learning*, 2023) assessment in direct participant interactions.

With ACE exposure being a clear and prevalent issue and current literature documenting an array of negative effects, there is lingering concern on the effects on day-to-day functionality of children. There is a wide range of research conducted that examines how ACEs contribute to

socio-emotional function in both pediatric and adult clients, such as shown in the studies mentioned above, and others (Beilharz et al., 2020) and emotional resilience and event centrality mediate posttraumatic growth following adverse childhood experiences (Tranter et al., 2021). Despite progress in this area of literature, few studies focus on the direct effect ACEs have on pediatric routines, such as schooling. As academics are a primary regimen to development in early childhood, studying ACE effects in this avenue will allow new research to inform existing techniques in clinical pediatric practices.

Literature Review

Adverse Childhood Experiences (ACES) and School Competency

The standard diagnostic definition of ACEs includes ten types of trauma, including physical, sexual and emotional abuse, parental separation and divorce, emotional and physical neglect, mental illness in the household, incarceration of a household member, and domestic partner violence (Scott, 2021). According to the research in academics, curriculum-based competency consists of “an integration of knowledge, skills, and attitudes” (Ibarra-Sáiz, 2020; Tahirsylaj & Fazliu 2021). When discussing competency in school, we examine the behaviors such as knowledge, skills, and attitudes students demonstrate within school to meet course requirements.

Much of the existing literary content about ACEs and school-aged children pertains to how it affects their socioemotional development (Cprek et al., 2018). Their findings determined that children with continued exposure to ACEs develop an abnormal stress response to their environments (Cprek et al., 2018, p. 15). ACEs have been shown to create a prolonged form of stress, which hinder the child’s ability to utilize positive adaptive strategies (Brouse, 2020). Similar research points not just to a lack of positive adaptive strategies, but the formulation of

maladaptive strategies, such as avoidant-emotional coping behaviors like isolation and reactive aggression (Sheffler et al., 2019).

According to the few studies performed between ACEs and childhood behaviors, there is a clear relationship between ACEs and a child's performance in school (Blodgett, 2018; Brouse, 2020). Blodgett's study found a linear relationship between higher rates of academic failure, truancy, and misbehavior with higher rates of ACEs (Blodgett, 2018). Paired with Brouse's findings, research suggests such academic performances like in Blodgett's study to be behaviorally charged.

Psychodynamic Theory

We modeled our conceptual framework after the psychodynamic perspective. Finding its origins in the work of Sigmund Freud, psychodynamic theory takes a unique approach to understanding the internal and unconscious processes that motivate human behavior (Hutchinson, 2017). Moreover, the psychodynamic perspective outlines that behaviors resulting from such processes are "adaptive" behaviors to an individual's environment (Hutchinson, 2017, p.43). Contextualizing this theory to our research, if we understand ACEs as a factor of the environment and complex psychological experiences, we can then study children's inability to meet academic standards as a negative adaptive, or "maladaptive" behavior resulting from such traumatic experiences. We thus anticipate maladaptive behaviors to present as the converse to positive behaviors.

Research Questions & Hypothesis

Studies, as mentioned above, note the significant impact of ACE exposure on childhood functioning (Cprek et al., 2020; Liming & Grube, 2018). However, due to the extensive nature of the existing research that predominantly outlines socioemotional development, there is a

widening gap in how ACEs are directly linked to adaptive behavioral responses, such as academic performance. Within our research, we aim to help close this gap by answering the question: how do ACEs affect a child's behaviors and performance specific to academic competency? We hypothesize that due to the traumatic environments and experiences, the child's normal adaptive behaviors are interrupted, which in turn evolves into reduced school competency.

Research Methods

Research Design

Our research utilizes a five-year longitudinal study with a cohort format so as to include students who initially present with ACEs in prescreening and those who may develop ACEs later within the study. This format allows us to identify fluctuations in academic progress occurring at the onset of trauma. Once volunteer participants have been established, the study will monitor students in first grade and continue repetitive, semester-based monitoring with the same cohort of students until they reach the conclusion of their fifth academic year. By utilizing a mixed method approach, we intend to gather quantitative information from various sources. Additionally, to supplement further markers of progress, we include qualitative surveys for educator evaluations, in which individual feedback on student progress is prompted.

Participants

This study will focus on elementary-school-aged children. Estimating an average of 30 students in an American classroom, with three to four classrooms per grade level, we conclude there are likely around 90-120 students total in a single graduating class. Of this total, we are hoping for about 40-50 students and their primary caregivers to be involved in the study, made up of both those with ACEs and those without. Subjects will be chosen from the pool of parents

or caregivers that volunteer their children and give documented consent for the study. Basic eligibility requirements are as follows: be a student at the public school for at least one full academic year and be enrolled in first-grade level. All volunteers meeting these requirements will be monitored regardless of initial ACEs screening results, as all students have the potential to develop future ACEs. The participants will be observed each semester until completion of the fifth grade.

Measurements

The independent variable can be identified as ACEs, with the dependent variable being the effect ACEs have on behavior, specifically elementary-aged children's academic performance. To measure ACEs, the Pediatric ACEs and Related Life Events Screener will be used. Developed specifically for pediatrics, PEARLS screens for 17 potential experiences, including the ten traditional ACEs, as well as additional exposure to "bullying, community violence, discrimination, family separation, low family cohesion, caregiver death and illness, food insecurity, and housing instability," (PEARLS; *Collaborative Learning*, 2023). Because our research focuses on children 6-12 years of age, the PEARLS child tool is most appropriate for targeting our population, though three versions exist. The child tool consists of the same 17 ACEs, in which a caregiver represents the child during screening, which is administered by a clinician. Further, PEARLS's measure of internal consistency, examined using Cronbach's alpha, scores around 0.81 and 0.82 (Thakur et al., 2020).

PEARLS offers assessments that both identify specific ACEs and leave them unidentified while still providing a sum total of ACEs in individual respondents. Given in two parts - to separate traditional ACEs from the additional seven added by creators of PEARLS - questions regarding both past and present experiences. Once completed, the number of yes responses to

ACE prompts is totaled to indicate positive or negative scores. A “yes” on any portion of the screening indicates an experienced ACE and, thus, a positive PEARLS score. Higher “yes” scores indicate the overall number of experienced ACES in the child’s life (PEARLS; *Collaborative Learning*, 2023).

To measure school competence, we will combine summative and formative assessments of student progress, creating comprehensive evaluations of academic performance. Summative assessments, such as the traditional five-grade system, are “cumulative results on specific course objectives that include individual student grades” (Center for Teaching Innovation, 2023). Teachers will be asked to submit graded material on the traditional five-grade system, with the following conversions used respectively: A+ (97–100), A (93–96), A- (90–92), B+ (87–89), B (83–86), B- (80–82), C+ (77–79), C (73–76), C- (70–72), D+ (67–69), D (65–66), D- (below 65). Sum scores will generate a cumulative grade-point average, which will be tracked each semester throughout the student’s progress. Formative assessments will also be used by analyzed using Goal Attainment Scaling (Jung, 2018). Using this scale, teachers develop precise, leveled descriptions of skill progress based on each grade level’s learning objectives. They then will describe the baseline, the end goal, and three intermediary points while ranking students on a nine-increment system each month. Scales will be recorded in data at the end of each semester. They will equally be provided a comment section in which open feedback on student skills, behaviors, and progress is prompted.

Using these two assessments to create a holistic view of academic progress, we can gauge where students may fall in working towards meeting their academic goals and where they may fall behind. We will then compare results from students with ACEs to those without to better propose what conventional progress may look like versus ACE-effected progress.

Data collection procedures

The goal of this cohort study is to collect data regarding the participants' academic performance in relation to the prevalence of ACEs. We will contact potential research participants through public school systems, focusing on a single elementary school for our initial data collection. We anticipate recruiting around 40-50 students in a single graduating class as volunteer participants. To ensure ethical and informed recruitment, we first intend to gain necessary research permissions from the school administration. Following endorsement from administrators, our research team will host a secondary recruitment event among parents, during which we will speak directly to potential research participants' caregivers about the content of the study. Additionally, anticipating the need for childcare to attend such an event, we hope to utilize school functions such as parent-teacher conferences or Parent Teacher Association meetings, where parents will already be present, thus limiting the need to find secondary childcare.

Once volunteer participants have been established, repetitive, semester-based monitoring will continue with the same cohort of students as outlined by our research design. We will also gather preferred method of communication from caregivers. Due to the sensitive nature of our research subject, we intend to collect data in a confidential manner by assigning participant ID numbers. Initial surveys will be in an interview format and ask caregivers to answer basic demographic and background information on the participant, as well as answer the PEARLS assessment. Caregiver surveys will then be re-conducted at the end of each semester.

In addition to volunteer student participants and PEARLS questionnaires, we intend to inquire about individual participant progress. This will be collected using semester-by-semester checks of students' Goal Attainment Scale, which teachers will be able to mark monthly as

students meet -- or do meet -- learning goals. Equally, we will ask them to submit summative grade records at the end of each semester. Both recording options will be available online and will follow the students' records throughout grade levels as they continue in the study.

Results

Anticipated findings of our study propose a negative association demonstrated between ACEs and academic performance. It is predicted that students with higher scores on the PEARLS assessment will score lower in both the summative and formative academic assessments. This is due to an understanding of the complex nature of traumatic experiences and -- in line with psychodynamic theory -- the potential adverse effects such complexity might have on the formulation of positive adaptive behaviors, such as being present and applied in educational settings. Thus, in line with this understanding of ACEs, we anticipate students with significant measures of ACEs to engage in maladaptive behaviors, such as avoidant-emotion coping, “excessive threat vigilance, problematic social relationships, and mistrust” (Sheffler et al. 2019). These maladaptive coping mechanisms then inhibit successful academic competency in terms of successful skills, attitudes, and behaviors children display in school.

Discussion

Research in this area is an integral aspect of understanding the complex, multifaceted nature of trauma, particularly in cases of childhood trauma. In narrowing our demographic to children in the early phases of primary education, we provide clinical practices with evidence and awareness previously unavailable to pediatric practices and standards. By clearly defining the relationship between ACEs and academic performance, practitioners can develop more candid perspectives on the impairing nature of ACEs and curate more direct plans of education and treatment in cooperation with clients and client support systems.

Strengths of our research include its versatility in regard to its applicable settings. Practitioners in family, school, and pediatric settings working with school-aged clients may utilize such research to inform care strategies and perspectives. Educators may also use such findings to curate academic learning models that embed trauma-informed goal-pacing and lesson plans into core curriculums, such as in Individualized Education Plans.

Limitations of this study include its inability to create a succinct standard for formative assessments of student progress. While the teacher-based formative evaluations do provide a standard format via the Goal Attainment Scaling measurement, the educator-respondents will change yearly, or perhaps more often, depending on a school's job retention abilities, as well as yearly grade progressions -- assuming students within the study are not subject to grade-level retention. By changing the individuals evaluating a single student on a regular basis, a gap of subjectivity manifests, which must be bridged.

Future research can use such insights gained from our study to continue to develop more thorough techniques for examining ACEs in pediatric patients and expanding documentation of real-time developmental effects ACEs have that present in long-term adaptive behaviors.

Conclusion

Research in pediatric presentations of ACEs is vital to understand the role of trauma on individual functioning. While previous literature on this subject has concerned ACE presentations in late adolescence, adulthood, or even specific developmental stages of childhood, few studies have yet to propose the unique connection between pediatric ACEs and subsequent behaviors in academic settings. Our methodology consisted of pediatric ACE screening, PEARLS, given to caregivers of volunteers, as well as surveys among instructors which include feedback and Goal Assessment Scaling measurements for individual students. Assessments were

collected over a five-year period of time at each semester. Using a holistic, mixed-method approach to understand primary education environments and traumatic onset in children, our study hypothesizes the interruption of a child's normal behaviors in the presence of ACEs. This disruption in their normal behavioral processes is expected to correlate with lower academic performance and maladaptive behaviors. Such results show significant advancement in understanding the impairing nature of ACEs during the formative developmental time of early childhood. Further research can expand such findings to note further day-to-day effects of functionality from a pediatric lens, leading to new and more effective clinical responses to childhood trauma.

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Appendix A: Informed Consent Form**PROJECT TITLE:**

Adverse Childhood Experiences and Influences on School Competency in Elementary-Aged Children
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**PROJECT APPROVAL
DATE:**

PROJECT EXPIRATION DATE:

LENGTH OF STUDY:

6 years

PRINCIPAL INVESTIGATOR:

Dr. Jung Sim Jun

CO-INVESTIGATOR(S):

Quinlan Brown, Ashley Tummons, Meredith Comas, Reese Heasty

**CONTACT DETAILS FOR
PROBLEMS/QUESTIONS:**

Emails to gjbrown@ksu.edu , meredithcomas@ksu.edu , amtummons@ksu.edu , rkheasty@ksu.edu or call 816-223- 7087

IRB CHAIR CONTACT INFORMATION:

If a study employs only questionnaires and surveys as the source of their data, it may generally be assumed that to answer and return the questionnaire is an appropriate and sufficient expression of free consent. However, there are circumstances that might call this assumption into question - e.g., teacher-student relationship between the investigator and the subject, etc. However, a statement should be included on the questionnaire or survey form indicating that participation of the subject is strictly voluntary, the length of time reasonably expected to complete the questionnaire or survey form, and that questions that make the participant uncomfortable may be skipped.

Form Content

PROJECT TITLE: Full title of project. If possible, the title should be identical to that used in any funding/contract proposal.

PROJECT APPROVAL DATE/ EXPIRATION DATE: provided in the approval letter, must be in place before distributing to subjects.

LENGTH OF STUDY: Estimate the length of time the subject will be expected to participate.

PRINCIPAL INVESTIGATOR/CO-INVESTIGATOR(S): Must be a regular member of the faculty.

CONTACT DETAILS FOR PROBLEMS/QUESTIONS: Name, phone number and/or email address of the P.I.

IRB CHAIR CONTACT INFORMATION: *For the subject should he/she have questions or wish to discuss on any aspect of the research with an official of the university or the IRB. These are:* Rick Scheidt, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224; Cheryl Doerr, Associate Vice President for

Research Compliance, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

PROJECT SPONSOR: Funding/contract entity.

PURPOSE OF THE RESEARCH: Explain in lay terms that this is a research project, and why the research is being done.

PROCEDURES OR METHODS TO BE USED: Explain in lay terms and in language understandable at the 8th grade level how the study is going to be conducted and what will be expected of participants. Tell participants if they will be audio or videotaped, if they will be paid, etc.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT: Explain any alternative procedures or treatments if applicable.

RISKS OR DISCOMFORTS ANTICIPATED: Describe any foreseeable risks or discomforts from the study. If there are no known risks, make a statement to that effect.

BENEFITS ANTICIPATED: Describe any *reasonably expected* benefits from the research to the participant or others from the research.

EXTENT OF CONFIDENTIALITY: Explain how you plan to protect confidentiality.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: *In cases where more than minimal risk is involved.*

PARENTAL APPROVAL FOR MINORS: If minors or those who require the approval of a parent or guardian are participants, you should include a space for their consenting signature.

PARTICIPANT NAME/SIGNATURE: Name of research participant and signature.

WITNESS TO SIGNATURE (PROJECT STAFF): Staff signature.

PROJECT SPONSOR:

PURPOSE OF THE RESEARCH:

Adverse childhood experiences are known to have various profound and negative impacts on children's development. Unfortunately, the rates of ACEs in America have grown over the years. There is a gap in existing research about the effects of such trauma in pediatric cases and, more specifically, the impact it has on academic ability. This study aims to learn more about how these experiences will affect elementary-aged children's school competency. With a better understanding of how much these experiences can affect school performance, both educators and helping professionals can use this research to understand students and better suit their needs.

PROCEDURES OR METHODS TO BE USED:

This study will use a mixed-method survey approach and interview between 50-100 caregivers with elementary-aged children, as well as the child's primary educator at school. Data collection will begin when the child is in 1st grade between ages 6 and 7. The data collection will continue until the child has graduated the 5th grade and is aged between 11 and 12. Data collection will occur 3 days after the end of every semester unless participants need a different day. The data will initially be collected on paper or recorded via audio and then transcribed. It will then be analyzed by the researchers. Interested participants will be contacted via email or phone by the researchers to confirm eligibility. Appointments will be made to sign the consent forms and set up the first interviews. The place of the survey and the time will be selected by the participant to ensure comfort; information will only be collected from parents and teachers. Prior to the first interview, researchers will confirm the consent form has been signed voluntarily and explain the purpose of the study. The survey will take between 20 and 30 minutes on average. The questions include demographics, adverse childhood experiences that the child being studied may have experienced, formative academic checks, and summative academic checks. The questions will not change throughout the duration of the study. Researchers will then ask open-ended questions about the participants' experience to ensure the survey environment was comfortable. This will take around 5 minutes.

BIOLOGICAL SAMPLES COLLECTED (Describe procedure, storage, etc.):

N/A
Whole genome sequencing will not be included as part of the research
Not Applicable.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT:

The participant can choose to speak answers and have them recorded via audio if they are visually impaired. Sign language interpreters will be provided if necessary, or the participant can bring a party they are comfortable with given the translator sign an informed consent and confidentiality form. Translators for different spoken languages can also be provided under the same requirements as a sign language interpreter. Paper surveys can also be translated into a different language if it will make it easier for participants.

RISKS OR DISCOMFORTS ANTICIPATED:

Potential risks include emotional distress for participants (parents and teachers only) due to the nature of the information we are collecting. It can be distressing to think about and recall. Potential discomfort can happen if the participants take a longer time filling out the survey and get tired. To reduce this, participants can choose a preferred place and time as well as take breaks when they feel it is needed. Interviews can be stopped at any point if participants feel tired or uncomfortable.

BENEFITS ANTICIPATED:

This study will provide information on how much of an effect ACEs can have on an elementary aged child's learning which will give mental health professionals more information on how to treat children.

EXTENT OF CONFIDENTIALITY:

To protect the confidentiality of participants, no personal identification will be collected and published in the survey (i.e., name and address). Personal information will be kept for contact information, but erased once the study is complete. Participants will be assigned an identification number which is what will be collected. Any potentially identifying information will be kept confidential and be stored on a password protected device; any papers with identifying information will be kept in a locked filing cabinet. Any audio recordings will be transcribed and after the completion of the study the recordings will be destroyed. The audio recording device will only be used for research collection and not a personal device of a researcher. The device will also be stored in a locked cabinet. Data will only be available to researchers involved in the project. Only overall results and data will be presented and available for viewing. Identifiers may be removed in the case that future research studies want to use this research; this will be done so an additional informed consent agreement does not have to happen.

The information or biospecimens that will be collected as part of this research will not be shared with any other investigators.

This study will not collect biospecimens.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY

OCCURS? ☒ Yes ☐ No

PARENTAL APPROVAL FOR MINORS:

PARENT/GUARDIAN APPROVAL SIGNATURE: **DATE:** **Terms of participation: I**

understand this project is research, and that my participation is voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant).

PARTICIPANT NAME:

PARTICIPANT SIGNATURE:

WITNESS TO SIGNATURE: (PROJECT STAFF)

DATE:

DATE:

Appendix B: Questionnaire – Caregiver**Demographic****Participant ID Number (Pre-filled out by Researcher)**

1. What is your child's gender? Male Female Other: _____
2. What is your child's race/ethnicity? _____
3. How old is your child? _____
4. How many people live with the child currently? _____
5. What is your relation to the child? _____
6. Are you the child's primary caregiver? Yes No
 - a. If you answered no, please list the primary caregiver(s).

7. What is the relationship status of the child's biological parents? _____

PEARLS Assessment

At any point in time since your child was born, has your child seen or been present when the following experiences happened? Please include past and present experiences when filling out this section.

Some questions have answers separated by an "OR". If either answer option is answered "yes", then the answer to the entire question is "yes" when calculating score.

1. Has the child ever lived with a parent/caregiver who went to jail/prison?
2. Do you think your child ever felt unsupported, unloved, and/or unprotected?
3. Has your child ever lived with a parent/caregiver who had mental health issues? (For example, depression, PTSD, bipolar disorder, schizophrenia, or an anxiety disorder)
4. Has the parent/caregiver ever insulted, humiliated, or put down your child?
5. Has the child's biological parent or any caregiver ever has, or currently has a problem with too much alcohol, street drugs or prescription medication use?
6. Has your child ever lacked appropriate care by any caregiver? (For example, not being protected from unsafe situations, or not cared for when injured even when the resources were available)
7. Has your child ever seen or heard a parent/caregiver being screamed at, sworn at, insulted, or humiliated by another adult? OR has your child ever seen or heard a parent/caregiver being slapped, kicked, punched, beaten up, or hurt with a weapon?
8. Has any adult in the household often or very often pushed, grabbed, slapped, or thrown something at your child? OR has any adult in the household ever hit your child hard that your child had marks or

was injured? OR has any adult in the household ever threatened your child or acted in a way that made your child afraid that they might be hurt?

9. Has your child ever experienced sexual abuse? (For example, anyone touched your child or asked your child to touch that person in a way that was unwanted, or made your child feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with your child)
10. Have there ever been significant changes in the relationship status of the child's caregiver(s)? (For example, a parent/caregiver got a divorce or separated, or a romantic partner moved in or out)
11. Has your child ever seen, heard, or been a victim of violence in your neighborhood, community, or school? (For example, targeted bullying, assault, or other violent actions, war, or terrorism)
12. Has your child experienced discrimination? (For example, being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences, or disabilities)
13. Has your child ever had problems with housing? (For example, being homeless, not having a stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)
14. Have you ever worried that your child did not have enough food to eat or that the food for your child would run out before you could buy more?
15. Has your child ever been separated from their parent or caregiver due to foster care, or immigration?
16. Has your child ever lived with a parent/caregiver who had a serious physical illness or disability?
17. Has your child ever lived with a parent or caregiver who died?

Appendix B.1: Questionnaire - Teacher

Participant ID Number (Pre-filled out by Researcher)

Summative Learning

Letter grade in overall class: _____

1. Letter grade in science: _____
2. Letter grade in Social Studies: _____
3. Letter grade in Math: _____
4. Letter grade in Reading: _____
5. Letter grade in Art: _____
6. Letter grade in Music: _____
7. Letter grade in Physical Education: _____

8. How would you describe the student's demonstration of learned skills in class?

9. How would you describe the student's behaviors in class?

10. What comments do you have on the student's individual progress in class?

Formative Learning - To be completed by the teacher.

Goal Attainment Scale:

Goal: _____

Month	Goal Progress
August	
September	
October	
November	
December	
January	
February	
March	
April	
May	
June	