Teacher Preparedness to Support Students with Adverse Childhood Experiences

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Abstract: It is estimated that up to 13% of children have been exposed to three or more adverse childhood experiences. The problem addressed by this study was the lack of adequate and appropriate teacher preparation in the support needed to combat the negative effects of adverse childhood experiences which can inadvertently intensify the academic, behavioral, emotional, social, and health challenges faced by children exposed to trauma. The purpose of this study was to explore teacher perceptions of pre-service and in-service professional development training provided to support the needs of elementary students that have been exposed to adverse childhood experiences in "at-risk", rural communities. Implications of the finding include the need for teacher preparation programs to include training on adverse childhood experiences and strategies to support children exposed to trauma, for school districts to gather input from faculty on in-service topics that are relevant to needs within the classroom, for school districts to provide more in-depth hands-on and proactive training on strategies to support children exposed to adverse childhood experiences, and on self-care to combat compassion fatigue.

Keywords: Adverse childhood experiences, Trauma informed care, Compassion fatigue, Teacher preparedness, Professional development

Introduction

Adverse childhood experiences (ACEs) are plaguing today's youth (Blitz et al., 2016; Rishel et al., 2019; Waehrer et al., 2020). It is estimated that one out of five children display signs of emotional distress resulting from exposure to ACEs (Ball et al., 2016). Blodgett and Lanigan (2018) reported that up to 13% of children have experienced three or more ACEs. Adverse Childhood Experiences (ACEs) are defined as traumatic or potentially traumatic events that can have a lifelong negative effect on the child (Blodgett & Lanigan, 2018, Felitti et al., 1998). Adverse childhood experiences can include community violence, domestic violence, abuse, neglect, and natural disasters (Blodgett & Lanigan, 2018; Elmore & Crouch, 2020; Sciarafffa et al., 2018). The long-term effects of ACEs in adults were the focus of an initial study conducted by Felitti and associates in

1998. Subsequent studies conducted with adults explored the long-term effects of ACEs and identified a direct relationship between exposure to ACEs and adult health and mental health concerns (Merrick et al., 2019; Miller et al., 2020; Waehrer et al., 2020). Findings from these research studies linked exposure to four or more ACEs to chronic health challenges such as heart disease, chronic obstructive pulmonary disease (COPD), cancer, chronic lung disease, and liver disease (Merrick et al., 2019; Miller et al., 2020; Waehrer et al., 2020). There was also a direct correlation between exposure to trauma and high-risk behaviors such as alcoholism, drug use, obesity, smoking, depression, suicide, mental health challenges, and multiple sexual partners. Additionally, exposure to ACEs is closely related to increased mortality rates (Waehrer et al., 2020). Given that medical and mental health challenges in adults are directly related to exposure to ACEs, justifies the need to support early identification (elementary) and intervention in order to positively affect the life trajectory of a child exposed to early trauma (Blodgett & Lanigan, 2018; Sciaraffa et al., 2018).

Increased exposure to ACEs leaves many children in a state of toxic stress (Blitz et al., 2016; Finkelhor, 2020; Zeng et al., 2019). Toxic stress is a physical reaction to extended exposure to traumatic events or chronic adversity. Levels of stress hormones are increased, placing the individual in a "fight or flight" mode (Blitz et al., 2016; Scairaffa et al., 2018). When children are in a state of toxic stress from early exposure to trauma, it can cause chemical changes which influence and restructure brain development (Scairaffa et al., 2018). Chemical changes and restructuring can lead to a variety of internalized behaviors, such as inattentiveness, depression, and anxiety as well as externalized behaviors, such as aggression and impulsivity (Berger, 2019; Sciaraffa et al., 2018).

Children who have been exposed to trauma and ACEs are more likely to display behavior and academic challenges (Sciaraffa et al., 2018). In the elementary classroom, the effects of trauma and exposure to ACEs can present as impaired language and communication skills, decreased social skills, lack of motivation, difficulty with cause-and-effect relationships, and a decreased ability to control emotions (Sciaraffa et al., 2018). Consequently, traditional methods of instruction and intervention that involve punitive consequences have been found to be ineffective (Sciaraffa et al., 2018). A study conducted by Gee (2020) reported that up to 25% of children that have been exposed to ACEs are placed in special education. Many children exposed to early trauma are placed into the foster care system which increases the likelihood of special education placement nearly three times when compared to children that remain with biological families (Gee, 2020).

Children spend the majority of their day in the school setting (Pataky et al., 2019; Rishel et al., 2019). The early identification and implementation of support during the school day can lead to needed resilience skills that can change future outcomes for trauma-exposed children (Pataky et al., 2019; Rishel et al., 2019). Universal screening has been found to be an effective method for early identification of children exposed to ACEs (Pataky et al., 2019; Rishel et al., 2019). In an effort to better understand the effects of early exposure to trauma, a preschool subset for post-traumatic stress disorder (PTSD) diagnostic criteria was added to the *Diagnostic and Statistical Manual of Mental Health Disorders* (DSM) 5th edition in 2013. Scheeringa et al., (2011) conducted a study over the course of several years using the addition of the preschool PTSD subset and noted an increase in

the identification of children exposed to trauma from 13% to 69% (Cummings et al., 2017; McGruder, 2019). Isolated studies using multi-tiered intervention within the school setting have been found to provide the academic, emotional, and social support needed for children exposed to ACEs (Frydman & Mayor, 2017; Rishel et al., 2019; Taylor & Barrett et al., 2018). Multi-tiered interventions in the form of social-emotional group and individual counseling can provide support to children that had been exposed to three or more ACEs (Pataky et al., 2019; Rishel et al., 2019). Pataky et al., (2019) noted that some students possess or develop resilience skills that may diminish the negative effects of early traumatic experiences. Although not directly measured, Pataky et al., 2019, found through exit interviews that students who were able to identify supports in their lives, demonstrated fewer negative effects of exposure to ACEs. The realization that early support can change outcomes is noteworthy (Pataky et al., 2019; Rishel et al., 2019). However, current literature lacks empirical studies that explore the direct connection between early intervention and the development of resilience skills.

Early identification and interventions are necessary to prevent future adult health issues that may reduce the quality of life as well as mortality rates (Rishel et al., 2019; Waehrer et al., 2020). Exposure to chronic trauma can affect all aspects of the child's growth and development (Pataky et al., 2019). For this reason, it is beneficial for classroom teachers to have the knowledge and skills that they need to support the learning of this vulnerable population in the classroom setting (Ball et al., 2016; Cooc, 2019; Cummings et al., 2017; Pataky et al., 2019; Winder, 2016; Yi-Hsuan et al., 2020; Zeng et al., 2019). A study conducted by Cummings and associates (2017) interviewed 14 community service providers regarding their work with children that had been exposed to ACEs. Seventy-nine percent of the participants reported that classroom teachers were unaware of the trauma experienced by the children and families in their community (Cummings et al., 2017). The identification of ACEs and interventions to support children exposed to ACEs is a relatively new area of study and therefore, research is limited.

General education and special education teachers are not prepared to identify the effects of ACEs and provide the support needed for students that have been exposed to trauma and adversity (Ball et al., 2016; Cooc, 2019; Cummings et al., 2017; McGruder, 2019). Cummings et al., (2017) identified the importance of teachers recognizing trauma exposure in the children and families they serve, having a positive attitude, and using effective collaboration skills and strategies to help students positively express emotions as key skills needed for teachers serving children. In multiple studies, K-12 teachers reported that they felt unprepared to meet the growing demands of students that have been exposed to traumatic events and ACEs (Cooc, 2019; Cummings et al., 2017; McGruder, 2019; Zeng et al., 2019). Klopfer and colleagues (2019) found that out of 117 pre-service teachers surveyed, 81% indicated that they did not receive adequate preservice training on managing the emotional and behavioral challenges of children. Teacher preparation programs provided limited instruction to teacher candidates on trauma-informed practices and strategies, such as mindfulness, that are needed to support students that have experienced early trauma (Ball et al., 2016). Additionally, teachers have a limited understanding of the effects of ACEs and often do not connect academic and behavioral challenges with trauma and ACEs (Cummings et al., 2017). Teacher preparation programs (i.e., pre-service training) focus on providing instruction on standards, curriculum, and pedagogy (Ball et al., 2016). Similarly, in-service training (i.e.,

professional development) for teachers supports learning and skill development in curriculum and academics (Ball et al., 2016). Many researchers contend that what is missing from this preparation is training on the mental health challenges associated with ACEs that trouble today's youth (Ball et al., 2016; Cummings et al., 2017).

Rural communities are often plagued with a multitude of social challenges which can lead to early childhood trauma. The Mid-Ohio Valley (MOV) was the rural geographic area targeted for this study. The MOV is plagued with a low socioeconomic status and a rate of opioid addiction that exceeds national averages (Rishel et al., 2019). The factors of low socioeconomic status and illicit drug use lead to many of the ACE indicators, such as broken homes, incarcerated parents, and food insecurity (Burke Harris, 2015; Radcliff et al., 2018; Rishel et al., 2019). Rishel et al., (2019) reported that as exposure to ACEs increases, so does the likelihood of drug use by the individuals exposed to traumatic events (2019). The Adverse Childhood Experiences Coalition of West Virginia partnered with Crittenton Services to explore the prevalence of ACEs in 28 independent organizations across the country. Findings indicated that the average number of individuals across the country that have had exposure to six or more ACEs was approximately 12%. The geographic target for this study, the MOV, reported 65% of participants had been exposed to six or more ACEs (Rishel et al., 2019).

Early identification coupled with training on trauma-informed practices can support students in the development of resilience skills that can combat the negative effects of ACEs (Ball et al., 2016). Without support, teacher training, early intervention (elementary), and research on ACEs, children that live in an environment plagued with trauma and adversity will not have the skills needed to change their future in a positive manner leading to a repeat of adversity for the next generation of children (Berger, 2019; Blodgett et al., 2018; Rishel et al., 2019; Spencer et al., 2018). Research is limited on effective strategies and supports needed by teachers to support elementary-aged students in rural communities that have been exposed to ACEs (Rishel et al., 2019).

The problem addressed by this study was the lack of adequate and appropriate teacher preparation in the supports needed to combat the negative effects of ACEs, which can inadvertently intensify the academic, behavioral, emotional, social, and health challenges faced by children exposed to trauma in rural communities of the MOV (Ball et al., 2016; Cooc, 2019; Cummings et al., 2017; McGruder, 2019; Rishel et al., 2019; Zeng et al., 2019). Ball et al., (2016) found a discrepancy among states regarding pre-service and in-service professional development training on mental health issues, that result from ACEs. Teacher preparation programs often lack explicit instruction for identifying and preparing teachers to meet the needs of students exposed to ACEs (Ball et al., 2016; Cooc, 2019; Cummings et al., 2017; Zeng et al., 2019). Ball and colleagues (2016) reviewed the professional development standards of 48 states and found that only 20% of states included training on early signs and symptoms of ACEs and mental health challenges.

Without knowledge of the early signs and symptoms of ACEs related challenges, traditional methods of intervention such as "time out" and "loss of privilege" can exacerbate internalized and externalized behaviors, leaving educators feeling unprepared to meet the unique social mental health needs of children exposed to ACEs

(Rishel et al., 2019). Teacher pre-service and in-service training do not mandate instruction on ACEs and the effect that exposure has on young children. Teachers that are not knowledgeable about ACEs can inadvertently add to or worsen the effects of trauma experienced by students that have been exposed to ACEs (Cummings et al., 2017; Rishel et al., 2019). There is a disconnect between teacher training and the need to support social-emotional health in young children that have experienced trauma (Ball et al., 2016; Cooc, 2019; Rishel et al., 2019).

The purpose of this qualitative descriptive study was to explore teacher perceptions of pre-service and in-service professional development training that is provided to support the needs of elementary students that have been exposed to ACEs in "at-risk," rural communities in the MOV. Qualitative descriptive studies are data-driven and are used to collect data from participants in their natural environment in an effort to effect positive change in the study setting (Lambert & Lambert, 2012). The target population for this study was 640 certified elementary general and special education teachers in rural communities in the MOV. The purposive study sample consisted of 10 K-6 general and special education teachers that were working with students that were "at-risk" or eligible for special education services (Bloomberg & Volpe, 2019). Curriculum directors from three school systems in the MOV were asked to provide access to contact information for sample participants, due to their knowledge of their individual school systems, thus narrowing the pool of participants to only licensed elementary educators that met the eligibility criteria for the study (Bradshaw et al., 2017).

Years of experience were not an inclusion criterion in an effort to maximize the variation of the data sample. All participants were asked to complete an open-ended questionnaire exploring knowledge of ACEs, followed by a semi-structured interview exploring perceptions of in-service and pre-service training. An interview protocol was used to conduct the interviews which were recorded and transcribed verbatim. Data was collected to the point of saturation to ensure that no new data was appearing, and that the data was able to answer the research questions (Bradshaw et al., 2017; Doyle et al., 2020). Data was manually coded for codes and themes during the thematic analysis process (Bloomberg & Volpe, 2019; Bradshaw et al., 2017). Due to the absence of literature on ACE training, findings from this study may be used to guide professional development training, program planning, and instruction of pre-service teachers leading to the identification of mental health supports and services for children that have been exposed to trauma and ACEs, which could change life trajectory in a positive manner (Ball et al., 2016; Rishel et al., 2019).

Method

Research Design

This study used a qualitative method and a descriptive design. Qualitative research by definition is research that is designed to gain a deeper understanding of a social situation through the eyes of those directly involved (Bloomberg & Volpe, 2019). Characteristics of qualitative research include conducting the research in a natural setting and viewing the phenomenon being studied from the perspective of the participants.

The data collection methods utilized for this study were an open-ended, questionnaire followed by a semi-structured interview (Bloomberg & Volpe, 2019). Open-ended questionnaires were used to collect structured data from sample participants (Byrne, 2017a). Questions were focused on and specific to the information needed for the study (Byrne, 2017a). The open-ended questionnaire designed for this study was utilized to collect demographic data relative to the research questions from the sample as well as participants' initial thoughts and perceptions of ACEs.

Semi-structured interviews were conducted to collect more in-depth information from participants regarding their perceptions of pre-service and in-service training received on supporting the unique needs of elementary students that have been exposed to ACEs. The use of semi-structured interviews aligned well with the research questions identified for the study. Seeking to gain the perspective of teachers resulted in a collection of rich, thick data. The semi-structured interview provided the researcher the opportunity to collect valuable data as well as clarify any statements provided by participants by using follow-up questions, which led to more in-depth and descriptive data (Bloomberg & Volpe, 2019). The semi-structured interview process consisted of an interview protocol that contained open-ended questions along with follow-up prompts as needed. The interview protocol was used as a guide allowing the interview to be conducted more as a conversation rather than a formally structured interview (Byrne, 2017). The interviews were recorded and transcribed verbatim, noting any non-verbal communication, pauses, and/or hesitations (Bloomberg & Volpe, 2019; Bradshaw et al.,2017; Denham et al.,2013; Doyle et al.,2020; Lambert & Lambert, 2012).

Data Analysis

Data analysis began once interview transcription was complete. To ensure credibility and support the triangulation of data, member checking was utilized once the initial data collection process was completed. Koelsch (2013) defined member checking as the procedure utilized to provide participants with an opportunity to review preliminary conclusions of the data analysis process. The reflective process of member checking ensured that the researcher portrayed an accurate representation of the participants' experience (Koelsch, 2013). Thematic analysis was conducted to explore perceptions of preparedness with both general and special education stakeholders (Bloomberg & Volpe, 2019). Cursory readings of the data generated initial codes that were analyzed for themes (Nowell et al.,2017). Manual coding was the primary means of analysis (Bloomberg & Volpe, 2019; Bradshaw et al.,2017). The initial analysis involved open coding to identify major points from the interviews (Bloomberg & Volpe, 2019). Inductive coding was used to determine similarities within the data. Further review produced additional codes and common themes (Bloomberg & Volpe, 2019). Additional readings led to axial codes which began to make connections and identify relationships between the data (Bloomberg & Volpe, 2019). Qualitative descriptive studies are inductive, thus leading to possible changes in codes based on the data analysis (Bloomberg & Volpe, 2019). The iterative nature of a qualitative descriptive design provided the flexibility needed to utilize follow-up interviews with sample participants and member checking to revisit codes and themes ensuring a factual representation of participants' experiences (Bloomberg

& Volpe, 2019). The findings provided answers to the research questions leading to a deeper understanding of the perceptions of professional development opportunities provided to elementary teachers and the perceptions of need when faced with providing support to children that have been exposed to trauma and ACEs.

Study Participants

The target population for this study was approximately 640 certified K-6 general and special education teachers in rural communities in the MOV. The study sample consisted of 10 K-6 general and special education teachers within the target population (Bloomberg & Volpe, 2019). Purposive sampling was utilized to identify sample participants based on the inclusion criteria. In contrast with random sampling, purposeful sampling can aid in the identification and selection of sample participants that have varied backgrounds and experiences (Bloomberg & Volpe, 2019). Inclusion criteria for participants were current general and special educators in the MOV working in the K-6 setting that was working directly with students identified by the school district as "at-risk" or in receipt of special education services. Students who are "at-risk" have a high probability of reduced success in the school setting due to academic, behavioral, emotional, social, or home factors (Rishel et al., 2019).

Participants for the study were identified through curriculum directors from three local school districts in the MOV (Bloomberg & Volpe, 2019). The curriculum directors were asked to contact general and special education teachers in grades K-6 in their respective districts that were currently working with students identified as "at-risk" or in receipt of special education services (Bloomberg & Volpe, 2019). A recruitment flyer was sent to all identified participants by the curriculum directors. Interested participants were asked to complete a letter of consent by opting in or opting out of the study prior to completing the open-ended questionnaire on the Qualtrics platform. The data collected from the open-ended questionnaire contained demographic information relative to the research questions along with participants' initial thoughts and understanding of ACEs and training received which aligned with the study research questions; thus, providing the groundwork for the data to be collected in the semi-structured interview process. Additionally, willingness to participate in the semi-structured interview portion of the study was identified.

Procedures

The instrumentation utilized for the study included a newly developed initial questionnaire as well as an open-ended, semi-structured interview protocol (Bloomberg & Volpe, 2019). An initial open-ended questionnaire was utilized to collect demographic information related to the research questions on all of the participants identified in the sample as well as preliminary thoughts on ACEs.

The open-ended questionnaire was designed to collect preliminary information from sample participants. Results of the initial questionnaire guided the next stage of the data collection process by providing data that answered the research questions and identified any changes that were needed to enhance the interview protocol leading to richer more descriptive data (Bloomberg & Volpe, 2019).

For the purpose of this study, the questionnaire and semi-structured interview questions were field-tested. The field test experts were asked to provide feedback on the validity of the questions and offer suggestions for changes or additions to the protocol. After feedback was collected, the questionnaire and interview protocol, and questions were adjusted to reflect stakeholder input (Jacob & Furgerson, 2012; Roberts, 2020).

Prior to initiating the data collection process, the study obtained approval from the Institutional Review Board (IRB). All materials to be used, including the recruitment flyer, open-ended questionnaire, and the semi-structured interview protocol were submitted for approval. Since the study was conducted with human subjects, a consent form was also be created and submitted for approval.

The study was conducted in three different school districts in the MOV. Once approval was obtained from the IRB, the data collection process began. The recruitment flier was provided to the curriculum directors for the three districts in the geographic target area in the MOV. Curriculum directors were asked to identify potential sample participants from their respective districts by sending K-6 teachers the recruitment flier. A link was provided on the recruitment flier that guided interested participants to the open-ended questionnaire on the Qualtrics online platform.

The consent letter was included in the Qualtrics link, and the questionnaire would not open until the sample participants indicate that they meet the criteria for the study and provide consent. Participants that indicated a willingness to participate in the full study were contacted through the preferred method, phone, text, or email, to participate in the semi-structured interview stage of the data collection process.

Results

The initial phase of this research began with the distribution of the recruitment flier. Three curriculum directors from three local school districts in the Mid-Ohio Valley (MOV) served as the "gatekeepers" for e-mail access to K-6 faculty in their respective districts. Curriculum directors were provided the recruitment flier with the Qualtrics questionnaire link that they distributed to K-6 general and special education teachers in their counties/districts. The Qualtrics open-ended questionnaire was completed by ten participants over the course of two weeks. Although the return rate was low, the sample was varied and included a wide range of participants. The participant sample consisted of ten K-6 general and special educators that represent a range of participants that serve students from 1st grade to 6th grade, that have two years' experience to 35 years of experience, are self-contained teachers as well as departmentalized teachers. Participants were primarily female although one male was included in the sample. Levels of education ranged between bachelor's degrees and doctoral level participants with the highest concentration at MA plus 45 hours of continuing education. Sample participants indicated limited to some knowledge of ACEs and none to some professional development training to support the needs of children exposed to ACEs. Sample demographics are shown in more detail in Table 1 below.

Table 1. Demographics of Study Participants

	n	%
Gender		
Female	9	90
Male	1	10
Highest Education Level		
EdD	1	10
EDs	1	10
MA + 45	3	30
MA + 15	1	10
MA	2	20
BA	2	20
Years' Experience		
30+	2	20
21-29	2	20
11-20	3	30
1-10	3	30
Assignment		
Interventionist K-6	3	30
General Education	4	40
1st grade	1	
2nd grade	1	
3rd grade	1	
5th/6th grade	1	
Special Education	2	20
Other	1	10

All 10 participants agreed to participate in the semi-structured interview process. All 10 participants were contacted via their preferred email address to schedule a semi-structured interview on the Zoom platform. Six of the ten sample participants reached out to schedule the Zoom interview. Semi-structured interviews were scheduled with six of the sample participants. Meeting dates were selected based on the availability of the participants and a Zoom link was sent through secure email. Interviews varied in length from 20 minutes to one hour.

Reoccurring Themes

Data analysis began at the conclusion of each semi-structured interviews. Zoom recordings were reviewed a minimum of four times to verify the accuracy of the transcript – special note was taken to observe for any body

language, hesitations, pauses, fillers, etc. (Bloomberg & Volpe, 2019). Once the accuracy of the transcript was confirmed through multiple viewings of the Zoom recordings, read-throughs were conducted to identify initial themes, categories, and codes across the six interviews (Bloomberg & Volpe, 2019). During the initial readings, sample participants were sent a Word document of their semi-structured interview transcript as part of the member checking process (Koelsch, 2013). All sample participants felt the transcripts of their semi-structured interview were an accurate reflection of their experience. No suggestions or corrections were requested.

During the initial transcript analysis, 188 initial codes emerged. Data were grouped into eighteen initial categories. Further analysis led to the consolidation of codes. Codes initially thought to answer all three research questions, such as *barriers,* were determined to be more applicable to RQ3. The 188 initial codes were reduced to 54 codes after further analysis.

Once grouped by RQ, analysis of the 54 codes led to the emergence of seven categories and seven themes related to the three research questions. (see Table 2). Once the codes were combined and grouped by RQ, distinct categories began to emerge. For example, in response to RQ1, reactions were very different based on the number of years since completing an undergraduate degree. The category of recent increased awareness emerged leading to the theme of *Teacher preparation programs are beginning to address ACEs and social-emotional development*. Newer teachers in the field had more awareness and training on the challenges faced by children exposed to ACEs. *Lack of shared governance* emerged as a category for RQ2. Codes identified multiple entities designing and providing professional development in the school system. A common absence, however, was input from the classroom teachers. Three categories emerged for RQ3. When asked about what teachers need to better support students exposed to ACEs, the codes provided lead the categories of *format of PD*, *PD topics*, and *Student factors*.

Discussion

Implications

This research produced five immediate implications for K-6 pre-service and in-service professional development. Beginning with pre-service training, findings indicate the strong desire for teacher preparation programs to provide more instruction and guidance on supporting students exposed to ACEs in the classroom setting. Although teacher preparation programs are beginning to address social-emotional development and ACEs in the curriculum, K-6 teachers still do not feel adequately prepared to meet the unique needs of students exposed to trauma. The idea that teachers feel inadequately prepared is supported in research conducted by Stites and colleagues (2018) and Zeng and colleagues (2019).

A second implication identified by this research is the need for teacher input into professional development opportunities. K-6 teachers feel current practices in relation to the design and implementation of in-service professional development opportunities do not take the needs of the classroom teacher into consideration. It is

the perception of K-6 teachers' training opportunities do not provide the immediate assistance needed in the classroom to support students exposed to ACEs. Cadero-Smith (2020) indicated when teachers are given a voice and professional development is designed in a co-constructed manner, the quality of training improves. K-6 teacher input into professional development opportunities is further supported by the principles of adult learning theory identified by Malcolm Knowles (1984). Knowles principles were based on the hypothesis that adult learners require a different approach to learning. Unlike the pedagogy associated with teaching young children, adult learning theory supports the active involvement of participants in the identification of topics, the design, and the implementation of adult professional development opportunities (Knowles, 1984). Data collected from this dissertation in practice reinforced Knowles principles of adult learning theory by indicating that K-6 teachers desire the opportunity to provide input into in-service professional development opportunities.

In conjunction with providing input, findings from this research support the third implication of this study. K-6 educators wish to have more in-depth training on topics related to supporting students exposed to ACEs. While some participants indicated a brief knowledge of ACEs, it was the general consensus more in-depth training was needed. Although they may have the knowledge of identification, participants reported they lacked the knowledge needed to effectively support the student and not add to the trauma the child was currently experiencing. Participants reported wanting to make sure their responses to students support them and not exacerbate the issue for the child. The idea of having more relevant and in-depth training is supported by Knowles principles of adult learning theory (1984). Knowles recognized that adult learners wear many hats which can lead to very limited time. Adult learners do not want to spend time in professional development that is not applicable to their current situation (Knowles, 1984). Knowles assumptions of adult learning theory led him to the conclusion that adult learners want training opportunities that are problem-centered and can easily be integrated into their daily lives (1984). Participants in this study sustained Knowles theory by sharing the desire for more problem-centered training that could be more in-depth and provide the knowledge needed to deal with classroom challenges posed by children exposed to ACEs.

A fourth implication of this study is the expressed need for training in proactive strategies to support children exposed to trauma and/or ACEs. K-6 educators desire professional development training that will support proactive measures which can be implemented to avoid or divert unwanted behavior. Participants shared experiences with children that display aggressive, disruptive, and harmful behaviors. In-service training on proactive strategies such as de-escalation, crisis management, crisis prevention, self-regulation, and coping strategies could prevent some behaviors from occurring which can reduce time out of class, absenteeism, and disciplinary action. Sciaraffa and colleagues (2018) describe children that live in "fight or flight" mode. Children exposed to chronic ACEs can have altered brain development which can place them in a state of hyperarousal (Sciaraffa et al., 2018).

Taking a proactive approach can help students learn the self-regulation skills that will help them be successful in the classroom (Rishel et al., 2019). Proactive intervention is further supported by the resilience research conducted by Pataky and associates (2019). Findings indicated that children that demonstrate self-regulation and

resilience can overcome the negative effects of ACEs. To further support the need for proactive intervention/strategies, Conn and associates (2020) conducted research by implementing Promoting Youth Resilience (PYR). High school students were provided instruction and strategies to promote self-regulation and self-control. Findings supported an improved rate of resilience and use of strategies in study participants (Conn et al., 2020). Although limited research is available on effective strategies to support children exposed to trauma in a classroom setting, findings from this dissertation in practice support the desire and need to expose K-6 students to self-regulation strategies early in an effort to avoid the negative effects associated with exposure to ACEs (Ball et al., 2016; Rishel et al., 2019).

The final implication of this research is the need for K-6 teachers to participate in self-care. Teachers must wear many different hats. In addition to high-stakes testing, curriculum requirements, working with parents, paperwork, and behavior challenges, teachers must advocate for their students. Classroom teachers report they live with a great deal of stress (Bottiani et al., 2019). Secondary trauma or compassion fatigue is a common occurrence with K-6 educators (Eyal et al., 2019; Johnson, 2020). Given the current teacher shortage, secondary trauma could be a contributing factor (Sciuchetti & Yssel, 2019). Participants in this study indicated very little if any professional development focused on self-care. Practicing self-care and mindfulness has been found to combat the effects of secondary trauma (Johnson, 2020). Bottiani and colleagues (2019) conducted research exploring the concept of secondary trauma and/or compassion fatigue. Findings indicated that teachers tasked with supporting students exposed to ACEs and trauma often developed compassion fatigue which can occur as a result of trying to provide prolonged support to children living in trauma (Bottiani et al., 2019). Findings further indicated that when teachers were provided with professional development opportunities that centered around self-efficacy and coping skills, personal stress levels decreased. Additionally, Bottiani and colleagues noted a reduction in disruptive behavior exhibited by students (2019). Five of the six participants in this study indicated self-care opportunities are limited or non-existent thus supporting the need to provide in-service training opportunities to assist in the reduction of stress associated with supporting students exposed to ACEs.

Conclusion

Adverse childhood experiences (ACEs) are becoming more prevalent and negatively affecting today's young people (Blitz et al., 2016; Rishel et al., 2019; Waehrer et al., 2020). Ball and colleagues (2016) estimated one out of five children exhibit signs of exposure to ACEs. Early exposure to ACEs has been linked to multiple health and mental health concerns in adults (Merrick et al., 2019; Miller et al., 2020; Waehrer et al., 2020). In an effort to positively affect the trajectory of a child's life and prevent adult health concerns, early identification and intervention are needed (Blodgett & Lanigan, 2018; Sciaraffa et al., 2018).

Children exposed to ACEs are more likely to display delayed academic skills and have a reduced capacity to self-regulate (Sciaraffa et al., 2018). Although children spend the majority of their day in the school setting, teachers report feeling inadequately prepared to meet their unique needs (Cummings et al., 2017; Pataky et al.,

2019; Rishel et al., 2019). Teacher preparation programs provide limited instruction on ACEs and strategies to support children exposed to trauma (Ball et al., 2016). Additionally, teachers report that once in the field, in-service and professional development opportunities do not provide robust learning opportunities for supporting students exposed to ACEs (Ball et al., 2016; Cummings et al., 2017).

Identified Themes

This qualitative descriptive study was designed to explore teacher perception of pre-service and in-service training provided to support students exposed to ACEs. In relation to RQ1, participants identified two major themes regarding the perception of pre-service training. Participants indicated that as more is learned about ACEs, teacher preparation programs are *beginning to incorporate instruction on social-emotional development* and ACEs into the curriculum. An additional theme found was teacher preparation programs well prepare candidates by *providing field experiences* that allow for hands-on opportunities in the areas of content and pedagogy.

In response to RQ2, participants identified two distinct themes. Regarding in-service professional development, participants indicated professional development training was *primarily conducted on programs and content strategies*. If any training was provided on social-emotional development, it was *surface training* and did not provide detailed in-depth training on how to support children exposed to trauma and ACEs. Furthermore, participants reported *limited input* into the types of professional development offered.

Concerning RQ3, participants' responses merged into three themes. The first theme to emerge was the desire to have *input into the professional development* opportunities provided by the school district. In addition, participants identified the need for *more hands-on, in-depth training* to be provided on topics of interest or recognized need such as de-escalation techniques, crisis management, relationship building, and self-care. The final theme to emerge was the need to have specific training on *ways to support students that are dealing with low self-belief.*

Table 2. Themes by Research Question

Research Question	Themes
RQ1: How do K-6 educators perceive pre-service professional development training to have prepared them to support students that have been exposed to Adverse Childhood Experiences?	Teacher preparation programs are beginning to address ACEs and social-emotional development. Teacher preparation programs provide hands-on opportunities in content and pedagogy.
RQ2: How do K-6 educators perceive in-service professional	In-service training focuses primarily on programs and content strategies

development training to prepare them to support students that have been exposed to Adverse Childhood Experiences?

K-6 teachers have limited input into professional development opportunities

RQ3:
What do K-6 educators perceive as effective training opportunities that would help support them in the classroom when working with students that have been exposed to Adverse Childhood Experiences?

Professional development opportunities that support K-6 students dealing with low self-beliefs are needed.

More relevant hands-on professional development opportunities are needed in K-6 classrooms.

Summary of Findings

The findings of this dissertation in practice can be used to guide pre-service and in-service professional development planning. Following the principles of adult learning theory and collecting input from participants, making training applicable to daily life, and using a problem-centered approach to learning can create training that will meet the identified needs of K-6 teachers and teacher candidates (Knowles, 1984). Although ACEs and the effects of trauma are relatively new areas of study, the themes identified through this research can be utilized to design professional development opportunities that provide robust training to K-6 teachers and pre-service teachers on the strategies and supports needed to support children exposed to ACEs as well as to combat compassion fatigue. Teachers that are better prepared to meet the unique needs of children exposed to ACEs will be in a position to positively affect the life trajectory of students exposed to early trauma (Ball et al., 2016; Rishel et al., 2019).

Recommendations

The purpose of this qualitative descriptive study was to explore teacher perceptions of pre-service and in-service professional development training that is provided to support the needs of elementary students that have been exposed to ACEs in "at-risk", rural communities in the MOV. Three recommendations for future research emerged from the findings and implications of this study. The desire for specific strategies to utilize in the classroom with students exposed to ACEs was a common thread throughout all interviews. A recommendation for future research would be to explore effective strategies to utilize in the K-6 classroom to support children exposed to ACEs. The absence of literature regarding professional development to support work with students exposed to ACEs leaves this field of research open for future studies.

A second recommendation for future research is a follow-up to the first recommendation. Once strategies are identified and provided in professional development settings, a future study could track the results to determine if the strategy once implemented can be beneficial in supporting students exposed to ACEs. Identifying evidence-based practices for supporting students exposed to ACEs could lead to the implementation of multiple research studies. Although some studies have been conducted in a clinical setting, limited research has been completed within a classroom setting (Frydman & Mayor, 2017; Rishel et al., 2019). A multi-tiered intervention model has been found to be effective for supporting children exposed to ACEs. Multiple studies explored variations of this model and found value and benefit to this method of intervention (Frydman & Mayor, 2017; Rishel et al., 2019; Taylor & Barrett, 2018). However, the aforementioned studies were conducted in conjunction with a social service aspect and with additional support personnel that may not be available in the typical K-6 settings. For this reason, additional research on effective strategies that can be implemented by the classroom teacher is a viable area for future research.

A third recommendation for future research is the exploration of strategies and supports to assist with compassion fatigue and secondary trauma. Participants indicate supports are not in place to assist educators in dealing with secondary trauma and compassion fatigue. Bottiani and colleagues (2019) conducted a study and found that strategies aimed at reducing stress and improving coping skills can have a positive effect on self-efficacy leading to reduced stress in teachers. Additionally, as teacher stress decreased, classroom organization and coping skills improved and student disruptive behaviors decreased (Bottiani et al., 2019). A study conducted by Johnson (2020) found that compassion fatigue led to irritability, moodiness, and depression in teachers. Practicing self-care and mindfulness was found to combat compassion fatigue and lead to more effective support for students exposed to ACEs (Johnson, 2020). Further research in the area of strategies directed at supporting secondary trauma could prove beneficial in preventing teacher burnout, reducing stress and improving student behavior in the classroom (Bottiani et al., 2019; Johnson, 2020).

Limitations

This study was limited to three rural counties in the MOV. The region is plagued with an above-average rate of opioid addiction (Rishel et al., 2019). The increased rate of opioid misuse in the MOV could influence the percentage of K-6 students and K-6 educators that have experienced exposure to ACEs, thus leading to perspectives that are atypical in other geographic areas. Additionally, this study was conducted during the COVID-19 pandemic of 2020. The COVID-19 pandemic of 2020 may have created an additional level of trauma for K-6 students and K-6 teachers. Participants new to the teaching field have not had the opportunity to teach during a COVID-free school year. As a result, perspectives may be different than the perspective of a teacher providing instruction without the added challenge of a pandemic. These identified limitations could potentially have an influence on the results of this study by providing a perspective that may be limited to the MOV.

Future studies conducted in other states and regions could broaden the scope of the research thus providing additional perspectives from participants. Broadening the geographic area of the study could lead to more prepared teachers entering the field and more teachers feeling prepared to support the needs of children exposed to trauma in the classroom. Finding from future studies could be used to guide in-service professional development opportunities thus providing K-6 teachers with the skill set needed to positively impact the future trajectory of students exposed to ACEs (Ball et al., 2016; Rishel et al., 2019).

References

Ball, A., Iachini, A. L., Bohnenkamp, J. H., Togno, N. M., Brow, E. L., Hoffman, J. A., & George, M. W. (2016). School mental health content in state in-service K-12 teaching standards in the United States. *Teaching and Teacher Education*, *60*, 312–320. https://doi.org/10.1016/j.tate.2016.08.020

Berger, E., (2019). Multi-tiered approaches to trauma-informed care in schools: A systematic review. *School Mental Health*, *11*(4), 121–127. https://doi.org/10.1007/s12310-019-09326-0

Blitz, L. V., Anderson, E. M., & Saastamoinen, M. (2016). Assessing perceptions of culture and trauma in an elementary school: Informing a model of culturally responsive trauma-informed schools. *Urban Review Issues and Ideas in Public Education*, *48*(4), 520–542. https://doi.org/10.1007/s11256-016-0366-9

Blodgett, C., & Lanigan, J. D. (2018). The association between adverse childhood experience (ACE) and school success in elementary school children. *American Psychological Association, 33*(1), 137–146. https://doi.apa.org/doi/10.1037/spq0000256

Bloomberg, L. D., & Volpe, M. (2019). *Completing your qualitative dissertation: A road map from beginning to end* (4th ed.). SAGE.

Bottiani, J. H., Durran, C. A. K., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands, resources and effective classroom practices. *Journal of School Psychology*, *77,* 36–51. https://doi.org/10.1016/j.jsp.2019.10.002

Bradshaw, C, Atkinson, S., & Doody, O. (2017). Employing a qualitative description approach in health care research. *Global Qualitative Nursing Research*, *4*, 1–8. https://doi.org/10.1177/2333393617742282

Burke Harris, N. (2015, February). *How childhood trauma affects health across a lifetime* [Video]. TED Conferences. https://www.youtube.com/watch?v=95ovIJ3dsNk

Byrne, D. (2017). How do I collect data using interviews? *Project Planner*. 10.4135/9781526408563.

Byrne, D. (2017a). How do I design a questionnaire? *Project Planner*. 10.4135/9781526408563.

Cadero-Smith, L. A. (2020). *Teacher professional development challenges faced by rural superintendents* (I. Sahin & P.Vu, Eds.). ISTES Organization.

Conn, A. M., Nelms, S. C., & Marsh, V. L. (2020). Creating a culture of CARE: A school-based behavioral therapy intervention builds resilience for students with high levels of trauma. *Educational Leadership*, *18*(2), 58–63.

Cooc, N. (2019). Teaching students with special needs: International trends in school capacity and the need for teacher professional development. *Teaching and Teacher Education*, *83*, 27–41. https://doi.org/10.1016/j.tate.2019.03.021

Cummings, K. P., Addante, S., Swindell, J., & Meadan, H. (2017). Creating supportive environments for children who have had exposure to traumatic events. *Journal of Child and Family Studies*, *26*(10), 2728–2741. https://doi.org/10.1007/s10826-017-0774-9

Denham, M. A. & Onwuegbuzie, Al J. (2013). Beyond words: Using nonverbal communication data in research to enhance thick description and interpretation. *International Journal of Qualitative Methods*, *12,* 670–696. https://doi.org/10.1177%2F160940691301200137

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*, *23*(5), 443-455. https://doi.org/10.1177/1744987119881060

Elmore, A. L. & Crouch, E. (2020). The association of adverse childhood experiences with anxiety and depression for children and youth, 8 to 17 years of age. *Academic Pediatrics*, *20*(5), 600–608. https://doi.org/10.1016/j.acap.2020.02.012

Eyal, M., Bauer, T., Playfair, E., & McCarthy, C. J. (2019). Mind-body group for teacher stress: A trauma-informed intervention program. *The Journal for Specialists in Group Work*, *44*(3), 204–221. https://doi.org/10.1080/01933922.2019.1634779

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D.F., Spitz, A. M., Edwards, V. Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, *14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Finkelhor, D. (2020). Trends in adverse childhood experiences (ACEs) in the United States. *Child Abuse & Neglect*, *108*, 1–8. https://doi.org/10.1016/j.chiabu.2020.104641

Frydman, J. S. & Mayor, C. (2017). Trauma and early adolescent development: Case examples from a trauma-informed public health middle school program. *Children & Schools*, *39*(4), 238–247. https://doi.org/10.1093/cs/cdx017

Gee, K. A. (2020). Predictors of special education receipt among child welfare-involved youth. *Children and Youth Services Review*, *114*, 1–9. https://doi.org/10.1016/j.childyouth.2020.105018

Jacob, S. A. & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report, 17*(42), 1–10. https://doi.org/10.46743/2160-3715/2012.1718

Johnson, M. M. (2020). Self-care: the antidote to compassion fatigue. *Educational Leadership*, *18*(2), 46–51.

Klopfer, K. M., Scott, K., Jenkins, J. & Ducharme, J. (2019). Effect of preservice classroom management training on attitudes and skills of teaching children with emotional and behavioral problems: A randomized control trial. *Teacher Education and Special Education*, *42*(1), 49–66. https://doi.org/10.1177%2F0888406417735877

Knowles, M. S. (1984). *Andragogy in action.* Jossey-Bass.

Koelsch, L. E. (2013). Reconceptualizing the member check interview. *International Journal of Qualitative Methods*, *12*, 168–179. https://doi.org/10.1177%2F160940691301200105

Lambert, V. A. & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research*, *16,* 255–256.

McGruder, K. (2019). Children learn what they live: Addressing early childhood trauma resulting in toxic stress in schools. *Mid-Western Educational Researcher*, *31*(1), 117–137.

Merrick, M. T., Ford, D. C., Ports, K. A., Guinn, A. S., Chen, J., Klevens, J., Metzler, M., Jones, C. M., PharmD, D., Simon, T. R., Daniel, V. M., Ottley, P., & Mercy, J. A. (2019). Vital signs: Estimated proportion of adult health problems attributable to adverse childhood experiences and implication for prevention- 25 states, 2015-2017. *Morbidity and Mortality Weekly Report*, *68*(44), 999–1005. https://doi.org/10.15585/mmwr.mm6844e1

Miller, T.R., Waehrer, G. M., Oh, D. L., Boparai, S. P., Walker, S. O., Marques, S.S., & Burke Harris, N. (2020). Adult health burden and costs in California during 2013 associated with prior adverse childhood experiences. *PLOS ONE*, *15*(1): e0228019. https://doi.org/10.1371/journal.pone.0228019

Nowell, L.S., Norris, J. M., White, D. E. & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16,*1–13. https://doi.org/10.1177%2F1609406917733847

Pataky, M. G., Baez, J. C., & Renshaw, K. J. (2019). Making schools trauma informed: Using the ACE study and implementation science to screen for trauma. *Social Work in Mental Health*, *17*(6), 639–661. https://doi.org/10.1080/15332985.2019.1625476

Radcliff, E., Crouch E., & Strompolis, M. (2018). Rural-urban differences in exposure to adverse childhood experiences among South Carolina adults. *Rural and Remote Health*, *18*(1), 4434–4449. https://doi.org/10.22605/rrh4434

Rishel, C. W., Tabone, J. K., Hartnett, H. P. & Szafran, K. F. (2019). Trauma-informed elementary schools: Evaluation of school-based early intervention for young children. *Children & Schools*, *41*(4), 239–248. https://doi.org/10.1093/cs/cdz017

Roberts, R. E. (2020). Qualitative interview questions: Guidance for novice researcher. *The Qualitative Report*, *25*(9), 1–6. https://doi.org/10.46743/2160-3715/2020.4640

Scheeringa, M. S., Zeanah, C. H. &Cohen, J. A. (2011). PTSD in children and adolescents: toward an empirically based algorithm. *Depression and Anxiety*, *28,* 770–782. https://doi.org/10.1002/da.20736

Sciaraffa, M. A., Zeanah, P. D., & Zeanah, C. H. (2018). Understanding and promoting resilience in the context of adverse childhood experiences. *Early Childhood Education Journal*, *46*, 343–353.

Sciuchetti, M. B. & Yssel, N. (2019). The development of preservice teachers 'self-efficacy for classroom and behavior management across multiple field experiences. *Australian Journal of Teacher Education*, *44*(6), 19–34.

Spencer, P., Harrop, S., Thomas, J., & Cain, T. (2018). The professional development needs of early career teachers, and the extent to which they are met: a survey of teachers in England. *Professional Development in Education*, *44*(1), 33–46. https://doi.org/10.1080/19415257.2017.1299028

Stites, M. L., Rakes, C. R., Noggle, A. K., & Shah, S. (2018). Preservice teacher perceptions of preparedness to teach in inclusive settings as an indicator of teacher preparation program effectiveness. *Discourse and Communication for Sustainable Education*, *9*(2), 21–39. https://doi.org/10.2478/dcse-2018-0012

Taylor, L. & Barrett, W. (2018). Developing a trauma-informed approach to closing the poverty-related attainment gap. *Educational & Child Psychology*, *35*(3), 64–75.

Waehrer, G. M., Miller, T. R., Silverio Marques, S. C., Oh, D. L., & Burke Harris, N. (2020). Disease burden of adverse childhood experiences across 14 states. *PLoS ONE*, *15*(1), 1–18. doi: 10.1371/journal.pone.0226134

Winder, F. (2016). Childhood trauma and special education: Why the "IDEA" is failing today's impacted youth. *Hofstra Law Review*, *44*, 601–634.

Yi-Hsuan, M., Alexander, M. A., Frydenberg, E., & Deans, J. (2020). Early childhood social-emotional learning based on the Cope-Resilience program: Impact of teacher experience. *Issues in Educational Research*, *30*(2), 782–807.

Zeng, S., Corr, C. P., O'Grady, C., & Guan, Y. (2019). Adverse childhood experiences and preschool suspension expulsion: A population study. *Child Abuse & Neglect*, *97*, 1–9. https://doi.org/10.1016/j.chiabu.2019.104149