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Principals' Knowledge of Trauma-Informed School Practices

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Abstract

Trauma has become a larger issue in schools, and it is necessary for school administrators, specifically principals, to be fully aware of and equipped to deal with trauma in the student body. There is limited quantitative research on what principals currently know about trauma and trauma-informed practices. To help fill this need for more quantitative data, this research study surveyed principals in two Midwest states to address the following questions: To what extent do principals know about trauma-informed care in schools? Did the principals receive any training on trauma-informed care in their graduate/certification programs? Did they seek training on their own? What are principals' perceptions of trauma-informed care? Do principals feel that they can transition their school to being trauma-informed if it is not already? This survey had a response rate of 4% (N = 120). Principals reported a need for more information to help their school with trauma-informed practices, despite many having already attended specific trauma-informed training. Additionally, principals indicated that there is a lot of need in their student populations for trauma-informed practices.

This Study by: Elsa Leyhe

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has been approved as meeting the Thesis requirements for the

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Principals Knowledge of Trauma-Informed School Practices

Some of the most difficult behaviors and academic issues that are seen in schools today are often linked to trauma or adverse childhood experiences (ACEs). Teachers and administrators struggle with the effects that trauma and ACEs have on students. Trauma and ACEs have been associated with academic struggles, negative and aggressive behaviors, and drug use (Bethell et al., 2014). Additionally, trauma has been shown to alter areas in the brain that are responsible for the neurological functioning associated with learning (Carrion & Wong, 2012; Dye, 2018). Beyond these immediate manifestations, trauma and ACEs also contribute to negative outcomes later in life (Dye, 2018; Felitti et al., 1998). This trajectory can turn into a cycle that hurts the individual, whole community, and country by decreasing educational successes. According to the 2017-2018 National Survey of Children's Health that was based on parent reporting; 33.3% of children 17 years old and younger had experienced one ACE and 14.1% had experienced at least two ACEs (Maternal & Child Health Bureau, 2020). In response, there has been an increase in the interest and implementation of trauma-informed teaching and practices in schools (Bethell et al., 2014). Trauma-informed practices in schools could help to mitigate the effects of trauma and ACEs through building resiliency and creating positive, healthy learning environments.

An ACE is similar to trauma and the terms are often used in the same contexts, although there are some differences between the two. An ACE is distinct from trauma in that it will typically last longer, such as living situations, and includes instances where the individual is not directly involved. An example of a child not being directly involved could be divorce in a family. Divorce can be a lengthy process that affects children

involved both at the time of the divorce and later on in life. Other examples of ACEs could include the mental health of people in the same home, lower socioeconomic status, or incarcerated family members (Bartlett & Sacks, 2019). The National Child Traumatic Stress Network (n.d.-b) defines child trauma as, "When a child feels intensely threatened by an event he or she is involved in or witnesses." The combination of ACEs and trauma creates a wider category of negative experiences that may cause problems in school. Moreover, this broader definition shows that there are many more students affected by traumatic experiences than there would be if the definition of trauma were used alone. Additionally, it is important to understand what a trauma-informed school is in order for school staff and administrators to make adjustments and implement strategies. The National Child Traumatic Stress Network defines a trauma-informed school in the following way, "A trauma-informed school system (K-12) is one in which all teachers, school administrators, staff, students, families, and community members recognize and respond to the behavioral, emotional, relational, and academic impact of traumatic stress on those within the school system." (National Child Traumatic Stress Network, n.d.-a, p.2).

Adverse Effects of Trauma in School

Childhood trauma is unfortunately prevalent in today's society. The effects of trauma are both immediate and long lasting (Bethell et al., 2014). Traumatic experiences are difficult for children to understand and deal with. Their distress may be shown in different ways in schools, such as academic difficulties or decline in academic performance, negative behaviors, absences, suspensions, and more. This is cause for concern not only because of these immediate effects, but also because these effects can

follow individuals later in life. ACEs and trauma can also lead to health and mental health problems. Additionally, young children exposed to an ACE or traumatic experience are more likely to accumulate these experiences as they grow up. This building of traumatic experiences can worsen behaviors and academics over the years. Also, recurring traumatic experiences are more common among racial and ethnic minorities. It is less common for children to get mental health services than for adults to get services, and this disparity is exacerbated for racial and ethnic minorities (Allison & Ferreira, 2017). Schools are a safe place for many children and they spend a lot of time there. Due to the adverse effects present in schools resulting from these forms of trauma, it is logical for schools to implement trauma-informed teaching and practices.

There is research to support the link between trauma and difficulties in school, as well as the lasting effects of trauma. One study surveyed school staff to see if there was a positive association between the number of ACEs and school absences, behavior problems, and academic problems. This study used a large sample of 2,101 randomly selected students from kindergarten to the sixth grade from a set of pre-selected schools. The staff members were given the survey and asked to answer the questions using facts, related to ACEs, that they knew about specific students from the sample. This study found, according to the data from staff, that an increase in the number of ACE exposures was related to increases in all negative school behaviors (Blodgett & Lanigan, 2018). It is important to note that there are limitations to this study. In particular, the sample was not very racially or ethnically diverse which limits the generalizability of the results and teachers may have under-identified ACEs.

Another study (DePrince et al., 2009) looked directly at the correlation between childhood trauma and executive functioning. This study included 111 children around the age of ten years old as participants and they were placed into one of three groups: familial trauma, non-familial trauma, and no trauma. The researchers used convenience sampling, which is a drawback of the study, however, their sample was diverse and proportionally matched the ethnic and racial makeup of the city in which the study took place. The participants were given a set of tests that assessed some key components of executive functioning (working memory, behavioral inhibition, processing speed, auditory attention, and interference control). Analysis demonstrated that the familial trauma group had the strongest association with deficits in executive functioning. Additionally, the analysis controlled for three possible confounding variables, symptoms caused from anxiety, low socio-economic status, and brain injury that may have resulted from trauma. This study highlights the connection between childhood trauma and school skills such as executive functioning.

A meta analysis examined the relationship between childhood trauma, mental health disorders, academic achievement, and school based health center (SBHC) mental health services. This study reviewed 10 studies to determine the effect of childhood trauma on mental health disorders and academic performance.. Nine studies examined disparities in access, quality, use, and/or funding of pediatric mental health care. Finally, eleven studies examined SBHC mental health services. The results of this research show childhood trauma puts people at a high level of risk for developing a mental health disorder and later deficits in academic achievement including lower grade point averages and higher rates of drop out. Seven out of nine studies found disparities in access,

quality, use and/or funding of pediatric mental health care. State of residence, insurance coverage, race, and income were found to impact access, quality, and use of pediatric mental health care. Although SBHC mental health services were found to offer some promise in aiding those with childhood trauma, it is not enough to overcome the common lack of pediatric mental health care. Studies indicated that racial disparities continued to exist and there continued to be unmet needs. Moreover, SBHCs are often funded by grants, making their ongoing funding uncertain (Larson et al., 2017). It is clear that there is a need for schools to be a part of helping children affected by trauma as this is not being adequately addressed in the medical field and has a large impact on school performance.

In addition, a study explored the connection between school success and adverse childhood experiences. The researchers completed a cross sectional study using data from the 2016 National Survey of Children's Health and three problems that hinder school success including, absence from school, lack of school engagement, and repeating grades. For the purposes of this study, the sample consisted of 31,707 respondents from the aforementioned survey. This study found that ACE's have an impact later on in life and on school success. It was found that students with four or more ACE's were more likely to be absent from school, not be engaged in school, and repeat grades (Crouch et al., 2019).

Neurological Effects of Trauma

The hypothesis among many researchers in this area is that there is a biological basis for the academic and behavioral struggles that a student may face after exposure to trauma. Brain structures and neurological functioning can be altered by trauma, which

could have lasting effects (Carrion & Wong, 2012; Dye, 2018). It is imperative to understand some of the underlying biological reasons for the symptoms of trauma. This may help those who work with students who have experienced trauma to understand that the students' neurological functioning has been changed by their experiences. Research in this area can also provide insight into what should be targeted in trauma-informed practices. The plasticity of the brain allows it to grow and change in response to what is being learned. Therefore, programs, trauma-informed practices, or therapy could target the main areas of the brain that are affected by trauma to create the most effective treatment (Thomaes et al., 2012).

Two areas of the brain that can be affected by trauma are the hippocampus and the prefrontal cortex (Carrion & Wong, 2012; Morey et al., 2016). The hippocampus plays a large role in forming and storing memories, and the prefrontal cortex is involved with attention, focus, and forming associations. The functions of these brain areas are essential for learning, and when these areas are not working properly due to trauma exposure, learning becomes more difficult. A group of researchers that investigated the effects of Post Traumatic Stress Syndrome (PTSS), which develops as a result of traumatic experiences, found decreases in hippocampus size and functioning. These changes presented as difficulties in performing memory-related tasks. In looking at the effects of trauma on the prefrontal cortex, the group found differences in grey matter volume and the prefrontal cortex's structure. These structural changes were linked to increases in cortisol (a stress hormone) levels in the brain caused by severe stress related to trauma (Carrion & Wong, 2012). It is critical for a child who has experienced trauma, and is exhibiting negative symptoms as a result, to get the help they need. Trauma that

happens during childhood may affect their neurological development and predispose them to further mental and physical health issues (Dye, 2018). These changes affect neurological development, and schools need to be prepared to provide teaching and services to help some of their most vulnerable students.

A study by Lu et al. (2019) showed that early childhood trauma can have lasting neurological effects later in life. The goal of this study was to distinguish between gray matter deficits in the prefrontal cortex in adults with major depressive disorder and adults with a history of childhood trauma. There were 78 participants in this study that were separated into four groups. The four groups included: individuals with both major depressive disorder and a history of childhood trauma, individuals with major depressive disorder only, individuals who experienced childhood trauma but did not have major depressive disorder, and individuals with neither major depressive disorder or a history of childhood trauma (control group). All participants were given structural magnetic resonance scans. The researchers found that participants with a history of childhood trauma had significantly less gray matter volume in the left dorsolateral prefrontal cortex compared to the groups without a history of childhood trauma. Grey matter is vital for proper brain function as it consists of millions of neurons and processes copious amounts of information. They also found that the more emotional neglect that the participants with childhood trauma reported, the less gray matter they had in the dorsolateral prefrontal cortex. These findings indicate that childhood trauma is more likely to be strongly linked to this reduction in gray matter than major depressive disorder.

Positive experiences can help offset the negative effects of trauma and help to build resiliency (Sege et al., 2017). Research has shown that healthy, stable relationships,

safe environments, and provision of basic needs can make a difference in the severity of the symptoms resulting from trauma (Dye, 2018). Additionally, interventions and activities in trauma-informed practices that target reduction in cortisol levels could be beneficial. Exercises that work with memory building skills may also help to mitigate the biological effects of trauma (Carrion & Wong, 2012). Schools that adopt a trauma-informed model could help students with trauma by creating staff awareness, building healthy relationships, and ensuring a safe and stable environment. This will provide the best opportunity to foster learning and positive future outcomes (Dye, 2018). Moreover, more research is needed in this area to connect what trauma-informed practices yield results that help to mitigate the neurological effects of trauma.

What Principals Need to Know

Principals are often key facilitators of change in their schools, which is why it is imperative that they receive extensive training in trauma and trauma-informed practices. The following research highlights the importance of principals receiving training in order to help the increasing number of students dealing with the effects of trauma, as well as the staff that see these students on a daily basis.

A qualitative study done by Arnold et al. (2020) examined factors related to school administrators that might influence the choice and implementation of trauma-informed, class-wide intervention. Fifteen school administrators were interviewed about adopting an intervention called Rap Club (Relax, be Aware, and do a Personal rating). The Rap Club is a program designed for eighth graders that focuses on mindfulness, cognitive behavioral therapy, and education on trauma and chronic stress. The factors explored were related to the principals' knowledge on trauma-informed practices

including, the principals' professional characteristics (education and training), professional experience, perceptions of the intervention, administrative leadership, and personnel expertise. This study found that principals adopted this trauma intervention to provide support to their students and help with developing coping strategies. This study also found that the main individual level factors that were predictors for the adoption of the intervention were professional characteristics, professional experience, and perceptions of the intervention. Moreover, this study pointed to the important role that principals play in the adoption of trauma-informed practices, as they make the ultimate decision to implement these practices in their schools.

Allen and colleagues (2020) highlight the need for trauma-informed practices in schools in North Carolina. Their focus is on preparing principals in North Carolina for adopting trauma-informed practices through the Trauma and Learning Policy Initiative's Flexible Framework (TLPI). TLPI has six key characteristics that are aimed at improving school leadership knowledge of trauma-informed practices: leadership, professional development, access to resources and services, academic and nonacademic strategies, policies and protocols, and collaboration with families. These authors felt the need to advocate for this framework because their research showed that none of the principal preparation programs in North Carolina had any school work specifically on trauma-informed practice. This lack of educational background in trauma-informed practice may not be unique to North Carolina. There is likely a need for principal preparation programs to put greater emphasis on trauma-informed practices in the United States based on the increasing needs of the student population, but at this time research about the prevalence of this content is lacking.

A study done by Fields (2020), for her dissertation in Education, used qualitative methods to assess trauma-informed care in schools. Fields argued that the principal plays a crucial role in the school's ability to address the student body's mental health needs and implement trauma-informed practices. Fields interviewed 14 principals on their use of trauma-informed care in their schools in Jefferson County Public Schools, Kentucky. This study used themes from the Flexible Framework in the interviews including, infrastructure and leadership, professional development, the role of mental health, classroom-based academic and non-academic strategies, policies, procedures, and protocols. Fields found that none of the principals had trauma-informed care in any of the schools' policies. This points to a clear gap in the foundational mindsets and knowledge of these schools (and likely many other schools) on trauma-informed practices. Additionally, all of the principals interviewed indicated the difficulty in addressing the needs of students with trauma. Fields concluded the study with suggestions including, providing principals with support, strong training in trauma-informed practices, and using a Trauma-Sensitive School Checklist in all schools. This study highlights the need for principals to better understand trauma and trauma-informed practices.

Sundborg (2019) specifically looked into several factors that may influence an organization's dedication to keeping and developing trauma-informed care. Sundborg looked at the factors of knowledge, principal support, self-efficacy, and beliefs. A survey of 118 participants included questions pertaining to these factors and trauma-informed care. This study found a direct effect between the participants underlying knowledge of trauma-informed practices and dedication to trauma-informed care. Indirect effects were observed for underlying knowledge and dedication of trauma-informed care through

principal support, self-efficacy, and beliefs about trauma. Moreover, all factors demonstrated a significant correlation with dedication to trauma-informed care. This research shows that principals need to be knowledgeable and supportive in order to have the best chances for creating a trauma-informed school. Leadership in schools need to play a major role in trauma-informed care if they truly want to see their school change to a trauma-informed system.

In the article, *Toward a Blueprint for Trauma-Informed Service Delivery in Schools*, the authors highlight that there are many trainings and programs available for school personnel to learn more about trauma-informed practices. However, there is a lack of evidence that trainings, programs, or professional development days on trauma-informed practices actually lead to a trauma-informed school. The authors expressed that creating a trauma-informed school requires a change in the system and involves many factors. The factors necessary to enact a system change are implementation, professional development, and evaluation. For each of these factors a blueprint was created to give schools ideas of how to become trauma-informed (Chafouleas et al., 2016). The transformation is dependent on the school administration being capable and willing to carry out a systems level change such as that suggested by Chafouleas and colleagues. Principals would benefit from training provided by higher education principal programs, specifically in the area of trauma-informed practices and systems-level changes to support these practices.

Beyond the clear student need for trauma-informed practices in schools, there are also needs expressed by teachers and other staff. There seems to be an outcry from those working in schools for more help in working with students who have mental health

needs, many of which stem from trauma (Lawson et al., 2019; Moon et al., 2017). Secondary traumatic stress (STS) is a contributing factor to the high rates of teacher and school staff burnout in recent years. STS comes from interacting with students who have high needs due to traumatic experiences. Teachers and school staff who are unprepared for the trauma may be vulnerable to STS and burnout (Lawson et al., 2019). Additionally, a study that looked into nearly 800 educators' perceptions of student mental health needs in schools found that 93% of the educators surveyed indicated high levels of concerns for students' mental health. Eighty-five percent of the educators also stated that there was a need for increased mental health training in schools (Moon et al., 2017). Many school staff are desperate for more resources when it comes to educating students with mental health needs and trauma. School administration needs to be prepared to address these needs not only to help the students, but also the staff as trauma can have contagious effects and be detrimental to a school's ability to function.

In addition to the expressed need for trauma-informed practices at the level of individuals and schools, the need has also been recognized at the state and federal levels. The past several years has seen an increase in the number of laws and legislation passed that require health and social service sectors, including education, to implement trauma-informed practices in some form. As of September 2019 there are 30 states that strongly encourage or require schools to have staff professional development on trauma-informed practices (Child Trends, 2021). Illinois passed a law (Public Act 099-0927, 2017) in 2017 that requires students to participate in social and emotional screenings as a part of the school entry process. Oregon, Massachusetts, and several other states also have new laws that address the need for trauma-informed care in schools (Maul, 2017). Additionally,

Wisconsin became the first trauma-informed state by creating the state-wide initiative, Fostering Futures. Fostering Futures implemented trauma-informed practices across the state for the purpose of bettering child development and community well-being (Aman et al., 2019). At the federal level, the House of Representatives unanimously agreed with H. Res. 443 (2018), which is an initiative aimed at highlighting the importance of trauma-informed care across many public sectors. The impact of trauma is now being recognized by policy makers which demonstrates that the country is inspired to move towards being trauma-informed, with schools and other public places at the forefront.

Trauma affects people in all settings and the distress it causes can transfer to others creating a stressful environment for everyone involved. Trauma does not discriminate by race, socioeconomic status or gender. Yes, there are differences in prevalence among all groups, but no one is safe from the possibility of trauma altering one's life at some point. There is a clear need to address trauma in schools and a clear disconnect between the research and practice of trauma-informed practices in schools. Programs and training are a good starting point but may not be sustainable, as trauma-informed practices can be complex and take time to implement. Additionally, there have been increased efforts from the state and federal government to promote trauma-informed care. Creating a trauma-informed school starts with the administration, in particular, the principal. Quantitative research is needed in this area to pinpoint what principals need to know about trauma in order to make trauma sensitive school the norm.

The current study surveyed principals to better understand what they know about trauma-informed schools and practices. The following research questions were investigated through this research: To what extent do principals know about trauma-

informed care in schools? Did they seek training on their own? Did the principals receive any training on trauma-informed care in their graduate/certification programs? What are principals' perceptions of trauma-informed care? Do principals feel that they can transition their school to being trauma-informed if it is not already?

Method

Measure

A 21-question survey was developed by the researcher to answer the research questions. Twenty questions used a closed-ended question format and one question open-ended. The questions were reviewed by three faculty members, including one with expertise in educational leadership and one in survey research.

A pilot study of the survey was conducted prior to the official survey being distributed. For the pilot, the survey was sent to three principals who agreed to review the survey and provide feedback. Appropriate changes were made based on the feedback. Their responses to survey questions were not included in the final results due to their educational and constructive purpose. Qualtrics was used to create the survey in a user-friendly format and distribute it to the study's population. The final survey questions can be found in *Appendix A.*

Procedure

The population for this study consisted of public elementary, middle and high school principals in two midwestern states, Minnesota and Iowa. The principal's emails were obtained through the Minnesota Department of Education and the Iowa Department of Education websites. This study was approved by the University of Northern Iowa Institutional Review Board prior to recruiting participants.

All of the principals on these two lists were invited to participate in this study to increase the sample size which, in theory, would increase generalizability and coverage. Each principal was sent an email containing basic information about the study and the survey, which was written by the researcher, and sent using Qualtrics. A total of 2,901 survey invitations were emailed and 313 of these emails either failed to send or bounced. A total number of 128 surveys were started and 120 of those were reported, meaning 120 participants answered at least one question. Of those 120 participants, 100 of them responded to the demographics questions at the end of the study. Using the number of reported responses, the response rate was four percent.

This survey was sent to the population for this study in October of 2022. After the first emails were sent, the participants had one week to complete the survey. Once this week has passed, a second round of emails was sent to those who did not respond during the first round. A third email was then sent to those who do not respond after two weeks. The total time for data collection was three full weeks.

Participants

A total of 120 people completed, or partially completed, this survey. A participant had to answer at least one question to be included in the analysis. The majority of the participants answered more than one question (98%). Of those 120, 100 participants responded to the demographic questions. Sixty percent of the participants identified themselves as female and 40% of the participants identified themselves as male. More than half of the participants (55%) indicated it had been 11 years or more since they completed their principalship program, 26% indicated it had been six to 10 years, and 19% reported it had been between zero and five years. Almost half of the participants,

49%, reported being a principal less than 10 years, with 18% reporting 1 to 3 years as a principal. A slightly smaller percentage of the participants, 17%, reported being a principal for 16 years or more.

Forty-nine percent of the participants reported they work in a kindergarten to fourth grade building, 16% work in a fifth to eighth grade building, 8% work in a kindergarten to eighth grade building, and 27% work in a ninth to twelfth grade building. Participants may be represented in more than one category as their building level/grades may not have been present as a single response in this response. Most of the participants, 91%, work in small to medium sized schools with a population somewhere between zero and 800. Sixty-five percent said that they either work in a building with 200 to 400 students or 400 to 600 students. Thirteen percent indicated that they work with a student population of zero to 200, and 12% indicated that they work with a student population of 600 to 800. Ten percent stated that their student populations in their buildings were 800 or greater.

Analysis

Frequency counts and graphical representations were used to analyze the responses to each closed-ended question. A chi square test of independence was conducted to determine if the number of years since completing a principalship program was related to the number of courses that addressed trauma-informed practices in principalship programs. Five themes were developed from the answers to the open-ended question, " What trauma-informed practices have you implemented in your school?" These five themes are classroom/student, separate room, staff, system or program, restorative. Answers for the classroom or student specific practices theme could include

breaks, calming spaces, zones of regulation, restorative circles, SEL learning, check in check out, or outreach. The second theme could include spaces such as separate calming or therapy rooms. The third theme includes staff or teacher specific practices such as staff trainings, staff book read, or mental health professionals (counselors, therapists, school psychologists). The fourth theme identified was the use of a tiered system or specific program such as RTI, MTSS, or PBIS. The fifth theme was restorative justice or discipline practices. Tallies were used to count the number of instances of each theme and graphed as simple frequencies. Each response may contain one or more themes. The survey questions used to answer each of the four research questions are outlined in *Appendix A.*

Results

Graphical representations of all survey questions can be found in *Appendix B.*

To what extent do principals know about trauma-informed care in schools? Did they seek training on their own?

The majority, 84%, indicated they either had a moderate amount of knowledge or a lot of knowledge on trauma-informed practices. A smaller percentage, 15%, indicated that they had a little knowledge or some knowledge of trauma-informed practices. Only one participant indicated that they had an expert level of knowledge of trauma-informed practices. The majority of participants, 86%, indicated that they wished they knew more about trauma-informed practices. Most participants indicated that they have attended specific, trauma-informed, professional development trainings or presentations (87%). Ninety-two percent have attended four hours or more of trauma-informed professional development, with 49% attending 10 or more hours. Thirty-nine percent indicated that they attended training on trauma-informed practices through professional development

offered in their district. About a quarter, 26%, indicated they attended training outside of their district. Additionally, 29% reported that they had attended training in a conference-based setting. Participants were allowed to choose more than one answer on this question as they may have attended training in multiple settings.

Did the principals receive any training on trauma-informed care in their graduate/certification programs?

Eighty-one percent of the participants indicated that their graduate/certification programs had zero classes that addressed trauma-informed practices/teaching/schools. Twenty-three percent of the participants stated that between one and five of their graduate/certification program classes addressed this topic. A chi square test of independence examined the relationship between the number of years since completing a principalship program and the number of courses that addressed trauma-informed practices/teaching/schools. The relationship between these variables was significant, X^2 (2, N = 100) = 14.35, p = 0.001, meaning that there is less than 0.1% chance that this relationship is due to chance alone. This indicates that the greater the amount of years since completing a principalship program, the more likely it is that the principal did not receive courses containing trauma-informed information. Conversely, principals that attended a principalship program within the last five years were more likely to have received courses containing information about trauma and trauma-informed schools than those who completed their programs 6 to 10 or 11 or more years .

What are principals' perceptions of trauma-informed care?

None of the participants indicated there was not a need in their schools for trauma-informed practices. Sixty-nine percent indicated ‘a lot’ or ‘extreme’ need for trauma-informed practices in their school. Twenty-eight percent stated that there was a moderate amount of need, and three percent indicated that there was little need for trauma-informed practices. Most (97%) felt trauma-informed practices provided ‘moderate’, ‘a lot’, or ‘extreme’ amounts of help in supporting students’ academic, social, emotional, and behavioral needs. Just under one percent (one participant) stated that they felt trauma-informed practices provided only ‘a little’ support and just under three percent (three participants) felt that they did not have enough knowledge to answer this question.

Do principals feel that they can transition their school to being trauma-informed if it is not already?

Eighty-five percent indicated they have implemented some trauma- informed practices in their school. As to the difficulty level of implementation, 35% reported that this was difficult, 35% reported that it was neither easy nor difficult, and 27% reported that it was somewhat easy, and three participants reported that it was extremely easy. Almost half of the participants, 48%, indicated that they had some training and tools to implement trauma-informed practices in their school. Twenty-six percent of participants said that they have 5 or more or many tools or trainings, and another 26% said they have few to no tools or training. The majority of participants, 77%, also reported they have had their staff attend trauma-informed training or professional development. Additionally,

82% estimated that at least half of their staff have attended trauma-informed training or professional development.

Participants who had implemented some type(s) of trauma-informed practice(s) indicated those practices. These answers were categorized into one of the following categories: classroom/student level practices, providing a separate room for students in need of a break or who are in crisis (e.g. a calm room or therapy room), staff training, systems-level changes, new programs, or changes to a system or program already in place, and restorative practices. Of the practices indicated, 37% fell into the classroom/student category, six percent in the separate room category, 24% in the staff category, 17% in the system or program category, and 15% in the restorative category. Lastly, almost two-thirds of the participants (64%) stated that trauma-informed practice was not a part of their schools' formal policies or strategic plan.

Discussion

Previous research has demonstrated the association between trauma and academic struggles, negative and aggressive behaviors, and drug use (Bethell et al., 2014). Additionally, trauma has been shown to alter areas in the brain that are responsible for the neurological functioning associated with learning (Carrion & Wong, 2012; Dye, 2018). Beyond these immediate manifestations, trauma and ACEs also contribute to negative outcomes later in life (Dye, 2018; Felitti et al., 1998). In response, there has been an increase in the interest and implementation of trauma-informed teaching and practices in schools (Bethell et al., 2014). Even with the increase in need, interest, available trainings, curriculums, and programs, some schools and districts are not where they would like to be in terms of preparedness for the difficulties of trauma in the student body. This study

provides information on what school leaders know about trauma-informed practices, where they learned about trauma-informed practice, and the implementation of trauma-informed practices in their schools.

Results suggest many principals perceive themselves as having some knowledge of trauma-informed practices. The majority reported that they have attended hours of specific, trauma-informed training or conferences. However, the overwhelming majority of the participants stated 'yes', they would like to know more about trauma-informed practices. This indicates they feel like even though they have some knowledge about trauma-informed practices, it is not enough to adequately address the impact of trauma in their schools. Some may have obtained good ideas or programs from the training and conferences they have attended, but principals have indicated they still want to know more. Thirty-nine percent of participants indicated they attended training on trauma-informed practices through professional development offered in their district. Thus, a fair amount of districts recognize this need and are providing information in the workplace. In the article, *Toward a Blueprint for Trauma-Informed Service Delivery in Schools*, the authors highlighted the availability of many trainings and programs for school personnel to learn more about trauma-informed practices. However, there is a lack of evidence that trainings, programs, or professional development days on trauma-informed practices actually lead to a trauma-informed school (Chafouleas et al., 2016). The results of this research study also suggest attempts to provide information and training for staff. However, based on the information in the article, this may not be the best way to create a trauma-informed school.

Almost all of the participants responded that they thought there was a need for trauma-informed practices in their schools. Additionally, most of the participants responded that they thought trauma-informed practices were at least moderately helpful in supporting students. Additionally, the trauma-informed practices that have been used in their schools are perceived as being helpful. Fields (2020) found that all of the principals interviewed indicated the difficulty in addressing the needs of students with trauma. Principals seem to find what they currently know about trauma and trauma-informed practices to be useful, but that doesn't make the task of addressing trauma in a student body easy.

The participants were asked about how many of the classes in their principalship programs addressed trauma-informed practices. The majority, 81%, answered that none of their classes addressed this topic. Similarly, Allen and colleagues (2020) found that none of the principal preparation programs in North Carolina had any school work specifically on trauma-informed practice. This shows a gap in the preparedness of principals to lead their schools in trauma-informed practices in multiple states. Additionally, this study examined whether the years since completing a principalship program had an effect on the number of courses that addressed trauma-informed teaching/practices/school in principalship programs. The chi square analysis revealed a significant relationship. This indicates that the greater the amount of years since completing a principalship program, the more likely it is that the principal did not receive courses containing trauma-informed information. Conversely, principals that attended a principalship program more recently are more likely to have received courses containing trauma-informed information. Sundborg (2019) specifically looked into several factors

that may influence an organization's dedication to keeping and developing trauma-informed care. Sundborg found a relationship between the participants' underlying knowledge of trauma-informed practices and dedication to trauma-informed care. Findings from these studies, and the current study, suggest that adding this topic to principalship programs could be an important step to create that underlying knowledge of trauma-informed practices. Therefore, giving principals skills that they need to use trauma-informed practices and create trauma-informed schools before they enter the profession.

The majority of the participants answered that their staff have attended trauma-informed trainings. Out of those that said their staff have attended trainings, most estimated that at least 50% of their staff attended. Almost half of the participants, 48%, indicated that they had some training and tools. This information indicates that many principals have some tools that are available to them, and staff also have at least some knowledge on trauma-informed practices.

The majority of the participants reported that they had implemented some trauma-informed practices in their school, and the reported difficulty of implementing trauma-informed practices varied. Arnold et al. (2020) found that the main individual level factors that were predictors for the adoption of a trauma-informed intervention were professional characteristics, professional experience, and perceptions of the intervention. Even though many staff and principals currently have some reported knowledge or training there is a missing piece. Based on this study and Arnold et al. (2020), bolstering principals' professional knowledge and personal experience will aid in actually

implementing trauma-informed practices rather than simply receiving the information from training.

Participants were also asked if trauma-informed practice is currently a part of their schools' formal policies or strategic plan. Some said yes, and almost double said no (64%). It is more common for trauma-informed practices to not be included in formal school policy, but yet, time and resources are being devoted to trauma-informed practices through training and professional development. In Kentucky, Fields (2020) also found that none of the principals had trauma-informed care in any of the schools' policies. Including trauma-informed practices as a part of a school or district policy would be key in keeping these practices around long enough to collect data, implement programs with fidelity, and to see if these practices work for individual schools and students. The practices the participants reported implementing suggest principals are trying to address the need at the source, in classrooms with the students and teachers. This is a great practice, but for these to be sustainable, a more structured plan needs to be in place, such as a district policy. Additionally, a specific program would provide the structure that is necessary to keep trauma-informed practices in play for longer and to make sure that the most effective techniques are being used.

This study shows findings that are in alignment with research conducted by Arnold et al. (2020), Allen and colleagues (2020), Fields (2020), and Sundborg (2019). All of which point to the importance of implementing trauma-informed practices in schools. Dr. Sandra Chafouleas, an expert on the topic of trauma-informed schools indicated creating a trauma-informed school requires a change in the system. In order to

change a school system, school administration must be capable and willing to carry out such change (Chafouleas et al., 2016).

Future Research and Limitations

Future research should focus on how to overcome the research-to-practice gap for implementing trauma-informed practices. Future research should also address what trauma-informed practices are the most effective in the school setting and how these practices could be organized into a tiered system. Research is also needed to determine if trauma-informed professional development has a positive effect for students. If this study were to be replicated, researchers should strive to increase the response rate, which was a limitation of the current study. Additionally, in order to better generalize findings and look for patterns, this survey could be sent to more states to capture a more diverse population. Another possible limitation to this research is the possible participant self-selection bias. Principals may have seen the email and concluded that they either already knew enough about the topic, or did not know enough, to take the survey. Lastly, this study was only sent out over the course of one month out of the year. A replication of this study could send out the survey multiple times during the year, such as beginning, middle and end of the year. Individuals may be less busy at different times of the year and offering the survey at multiple points in the year could increase the response rate.

Conclusions

With trauma becoming a larger issue in schools, it is necessary for school administrators, specifically principals, to be fully aware of and equipped to deal with trauma in the student body. This study found that principals indicated they need more information to help their school with trauma-informed practices. Principals in this study

indicated that there is a lot of need for trauma-informed practices in their student populations. Despite a range of reported training experiences, most participants would like to know more about these practices. Principalship programs may lack training in this area. Principalship programs should include trauma-informed-practices in the curriculum to help principals lead their schools to being trauma-informed.

Some participants have implemented trauma-informed practices in their schools and they have found them helpful. There appears to be a focus on providing students and staff with training and tools that need to help situations on a daily basis. This is a great place to start, but creating a trauma-informed school will take more substantial, systems-level, changes. Not as many principals indicated that they had a specific trauma-informed curriculum or program in place or had trauma-informed practices as a part of a formal policy. Moving forward, a systems level approach needs to be taken. This will create accountability that trauma-informed practices will be focused on and practiced in school buildings. Trauma-informed training should include evidence-based programs and how to implement them in schools in order to avoid the use of ineffective practices. Schools should also include trauma-informed policies to help hold them accountable for their most vulnerable students.

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Appendix A: Survey

Survey. In bold is a main research question, and the bulleted questions below each main research question are the questions that will be asked on the survey to answer the research question. The last section consists of gathering demographic information.

To what extent do principals know about trauma-informed care in schools? Did they seek training on their own?

- What is your perceived level of knowledge on trauma-informed practices in K-12 schools?
    - Scale - 0 (none), 5 (expert)
    - 0 = no knowledge, 1= a little knowledge, 2 = some knowledge, 3 = a moderate amount of knowledge, 4 = a lot of knowledge, 5 = expert knowledge.
    - If the answer is 5 = expert, the next question will be skipped.
- Do you wish you knew more about trauma-informed practices/teaching/schools?
    - yes/no
- Have you attended specific trauma-informed professional development presentations or trainings?
    - yes/no
    - If answer is “no”, the next two questions will be skipped.
- How many hours of specific trauma-informed professional development presentations or trainings have you attended in your time as a principal?
    - Ranges - 0, 1-3, 4-6, 7-9, 10+
- What trainings have you attended?
    - Conference based/ Professional Development offered in your school or district/ Professional Development from outside of the district/ other

Did the principals receive any training on trauma-informed care in their graduate/certification programs?

- About how many courses in your principalship program addressed trauma-informed practices/teaching/schools?
    - None, 1-5, 6+

What are principals' perceptions of trauma-informed care?

- In general, how much need, if any, do you think your school has for trauma-informed practices?
    - Scale - 1-5 scale - 1 (does not need), 2 (there is a little need), 3 (there is a moderate amount of need), 4 (there is a lot of need), 5 (there is extreme need)

- How would you rate the helpfulness of trauma-informed practices in supporting students' academic, emotional, social, and behavioral needs?
    - Scale - 1-5 scale - 1 (not helpful at all), 2 (a little helpful), 3 (moderately helpful), 4 (helps a lot), 5 (extremely helpful), Not enough knowledge to answer

Do principals feel that they can transition their school to being trauma-informed if it is not already?

- How prepared do you feel in terms of tools and training to implement trauma-informed practices in your school?
    - Scale - 1 (no training/tools), 2 (few trainings and tools), 3 (some trainings and tools), 4 (5 or more trainings and tools), 5 (many trainings and tools)
- Have you had the staff at your school attend any trauma-informed training or professional development?
    - yes/no
    - If "no" next question will be skipped
- Estimate what percentage of your staff attended trauma-informed training or professional development?
    - 100%, more than 50%, less than 50%,
- Have you implemented any trauma-informed practices in your school?
    - yes/no
    - If "no" next two questions will be skipped.
- How easy or difficult have you found it to implement trauma-informed practices in your school?
    - 1 = very difficult, 2 = difficult, 3 = neutral, 4 = easy, 5 = very easy
- What trauma-informed practices have you implemented in your school?
    - Box allowing for input
- Is trauma-informed practice currently a part of your schools' formal policies or strategic plan?
    - yes/no

Other information/demographics

- Do you identify as male, female, non-binary, prefer to self-describe below?
- How long has it been since completing your principalship program?
    - 0-5 years, 6-10 years, 11 years +
- How many years have you been a principal?
    - Ranges - 1-3, 4-6, 7-9, 10-12, 13-15, 16-19, 20+
- What levels of education have you worked in as a principal?
    - (check all that apply) - elementary (grades k-4), middle (grades 5-8), k-8 school, high school (grades 9-12)

- What current level of education do you work in?
    - (check all that apply) - elementary (grades k-4), middle (grades 5-8), k-8 school, high school (grades 9-12)
- What is the size of your school?
    - Ranges - 0-200, 200-400, 400-600, 600-800, 800-1000, 1000-1500, 1500-2000, 2000+

Appendix B: Email

Principals' Knowledge of Trauma-Informed School Practices

Elsa Leyhe

We are conducting a research study at the University of Northern Iowa about principals' knowledge of trauma-informed school practices. This study involves completing an online survey, which will take 15 minutes or less. The study is voluntary and you can choose not to answer some or all of the questions. The study risks are minimal, although you may feel some discomfort answering questions about your own knowledge of school-based, trauma-informed practices. There will be no compensation for your time, and there are no direct benefits to you, but we believe the study will help society to better understand trauma-informed school practices.

This survey is confidential. While we will not request your name, we will ask for some demographic and general information (e.g., gender, number of years working as a principal, etc.). Because the survey is on the internet, we cannot guarantee that the data will not be intercepted by others, although this seems unlikely. After we receive your survey, we will separate the survey sections and store the demographic information in a different file than the survey responses, and only combine them data during analysis. Individual results will never be shared with anyone. Grouped results will be shared in articles and presentations. We may also use the data again later in other research studies, and may share the de-identified datasets with other researchers interested in the topic.

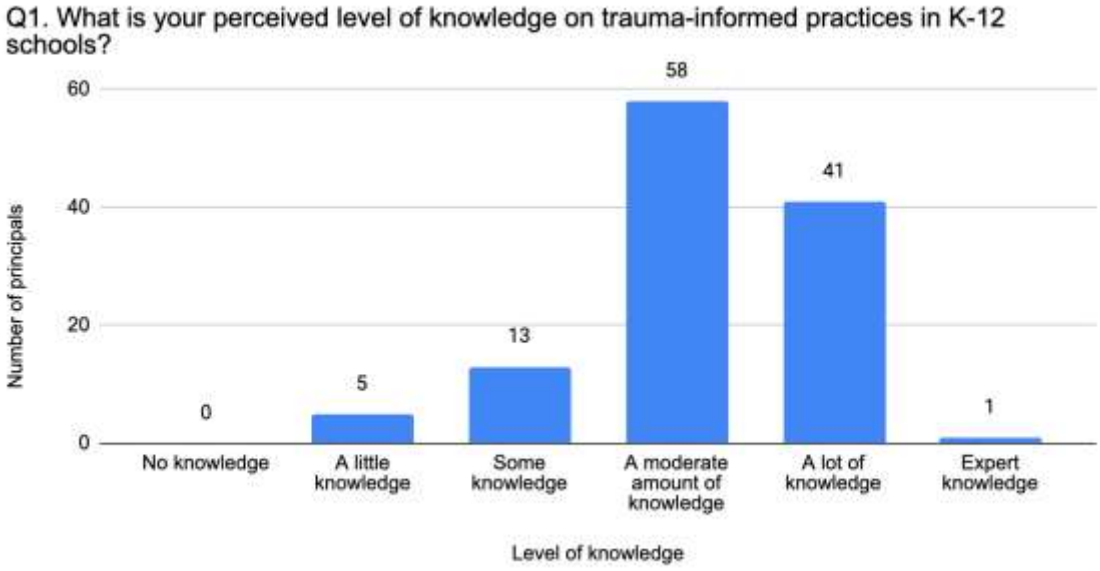
If you have questions about the study, please contact the lead researcher, Elsa Leyhe, at leyhee@uni.edu. If you have questions about the rights of research participants, contact the UNI IRB Administrator at lisa.ahernt@uni.edu.

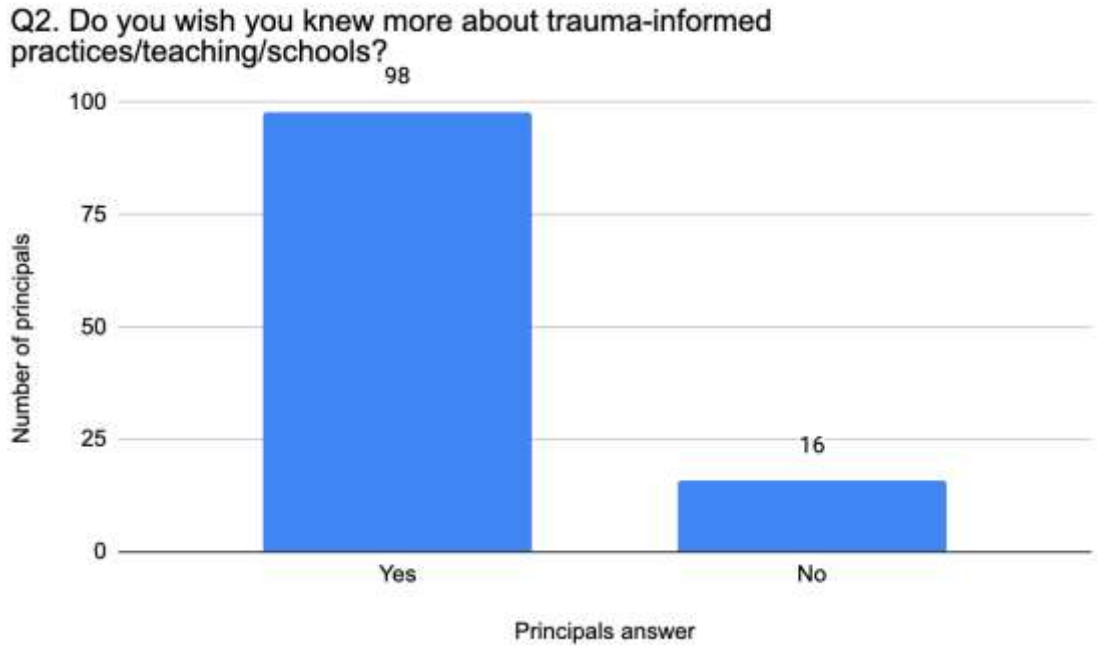
If you are interested in completing the survey, click the link below. If not, you may simply close your browser.

Knowledge of Trauma-Informed Practices Survey

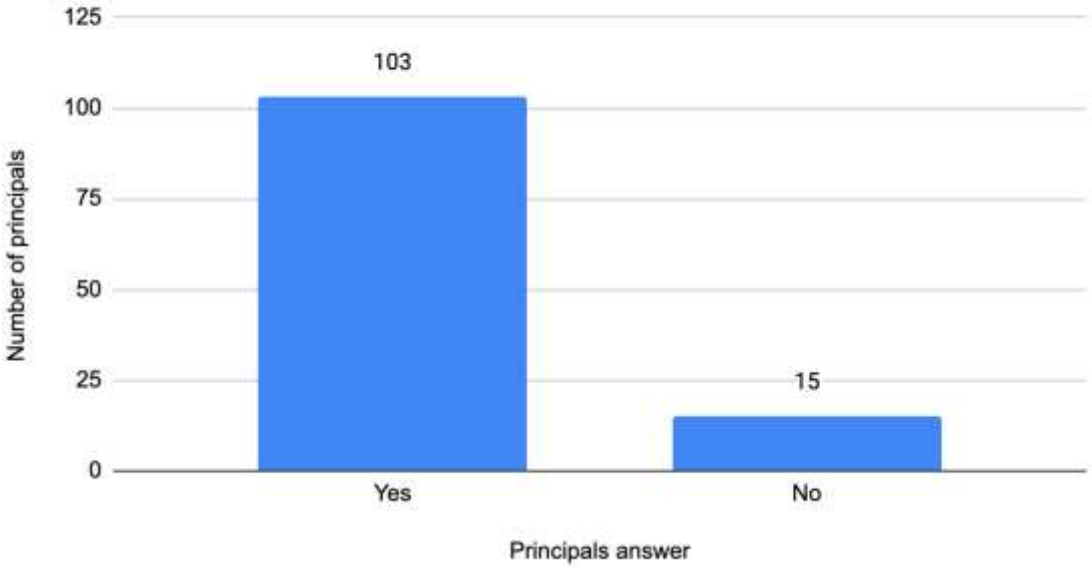
Appendix C: Graphs

To what extent do principals know about trauma-informed care in schools? Did they seek training on their own?

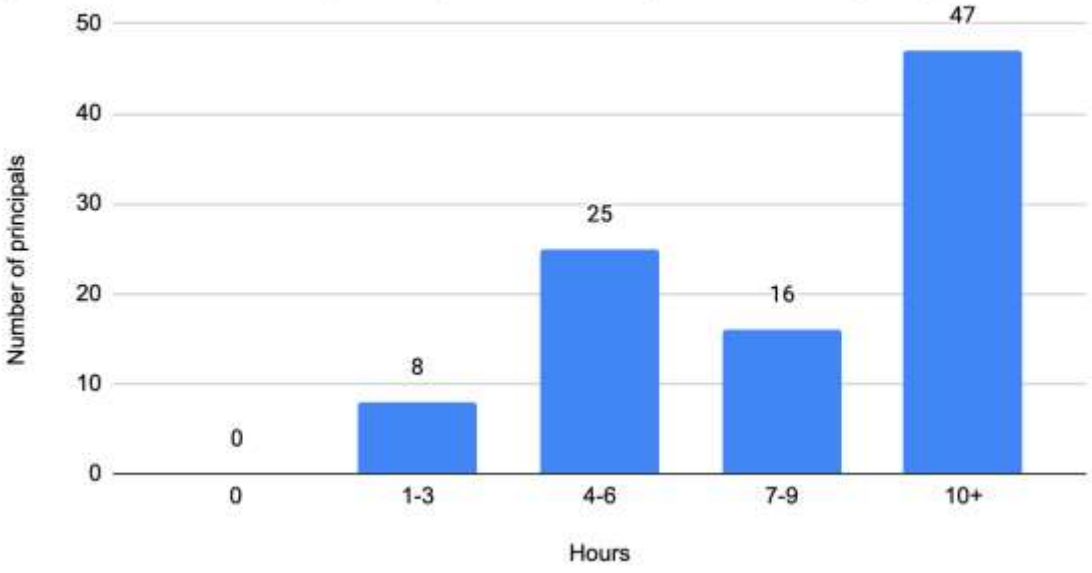


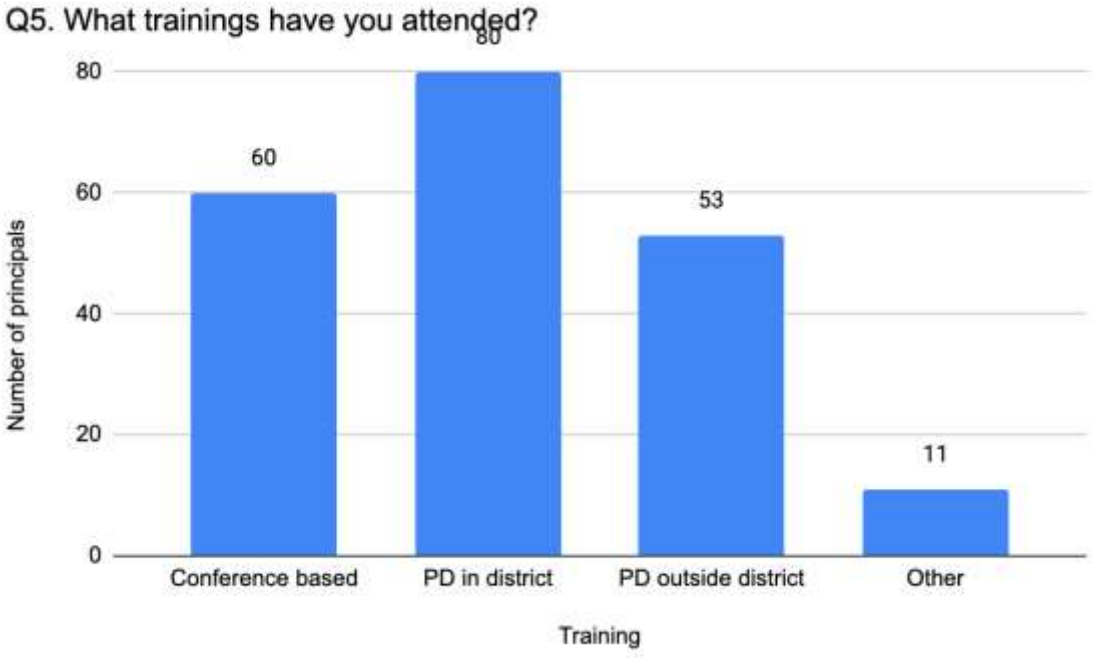


Q3. Have you attended specific trauma-informed professional development presentations or trainings?

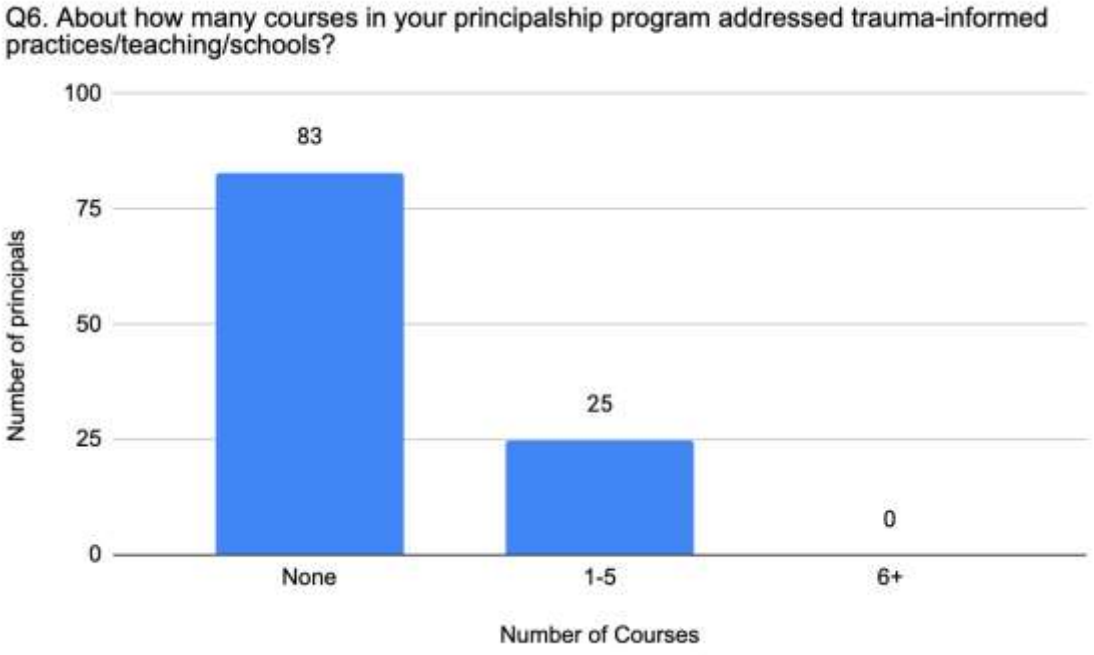


Q4. How many hours of specific trauma-informed professional development presentations or trainings have you attended in your time as a principal?

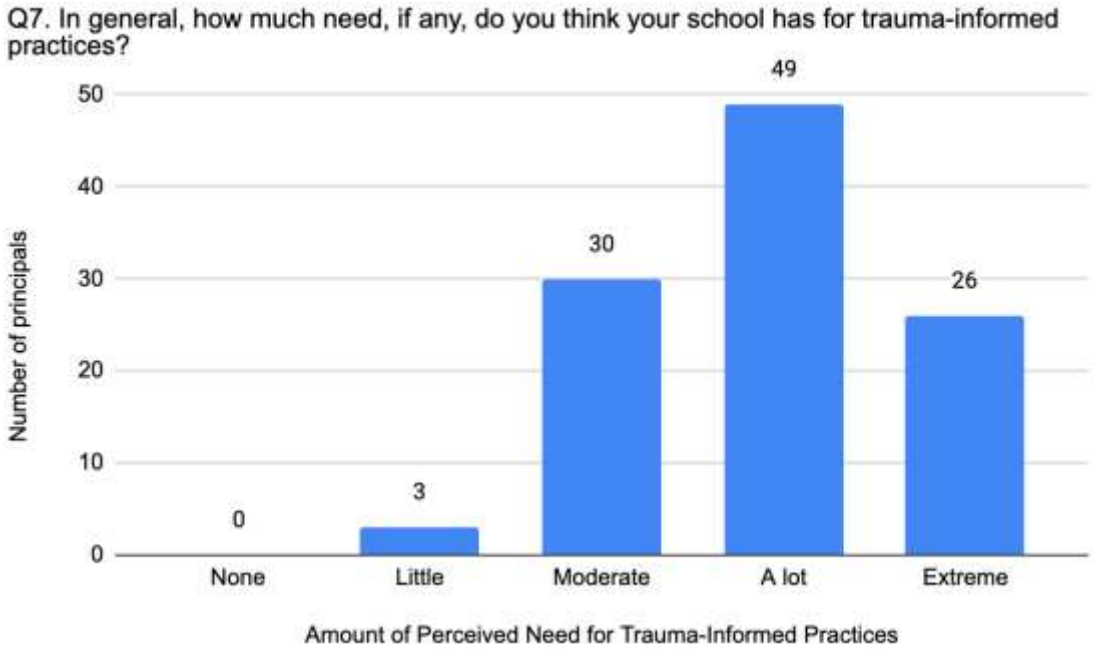


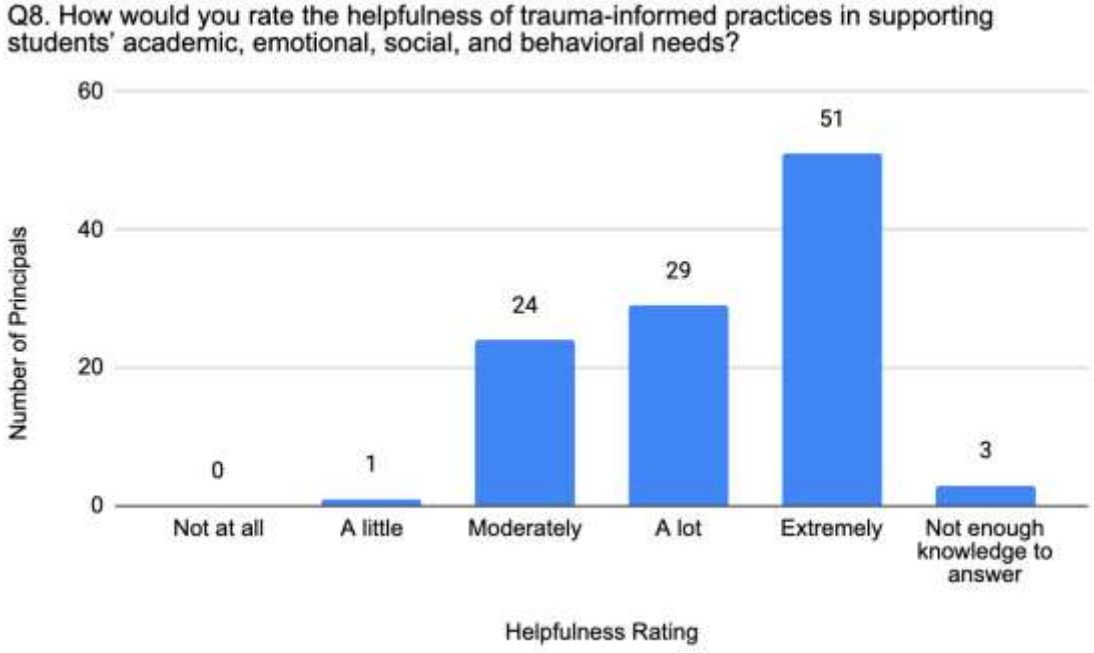


Did the principals receive any training on trauma-informed care in their graduate/certification programs?



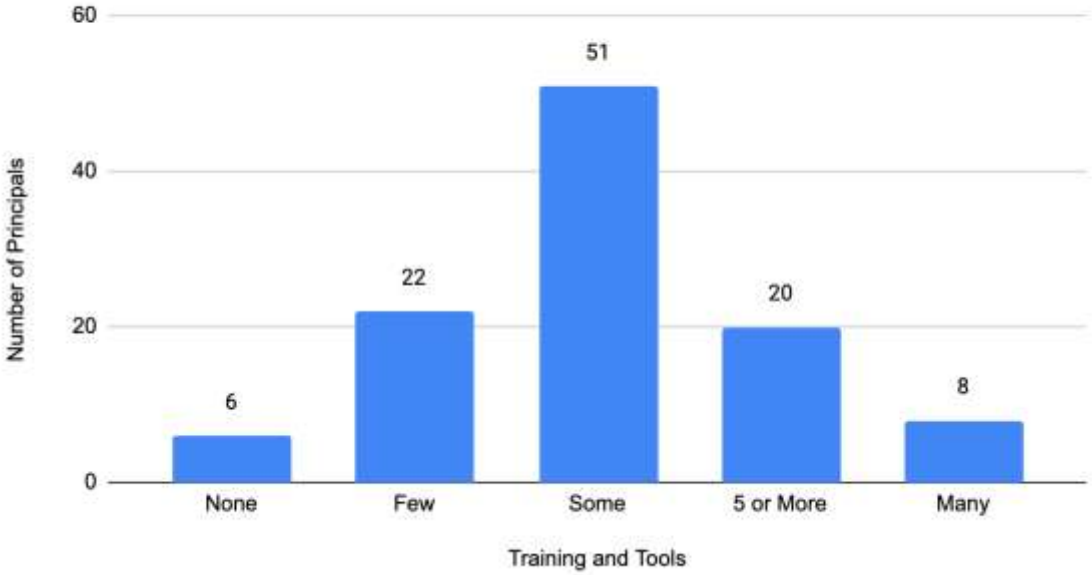
What are principals' perceptions of trauma-informed care?



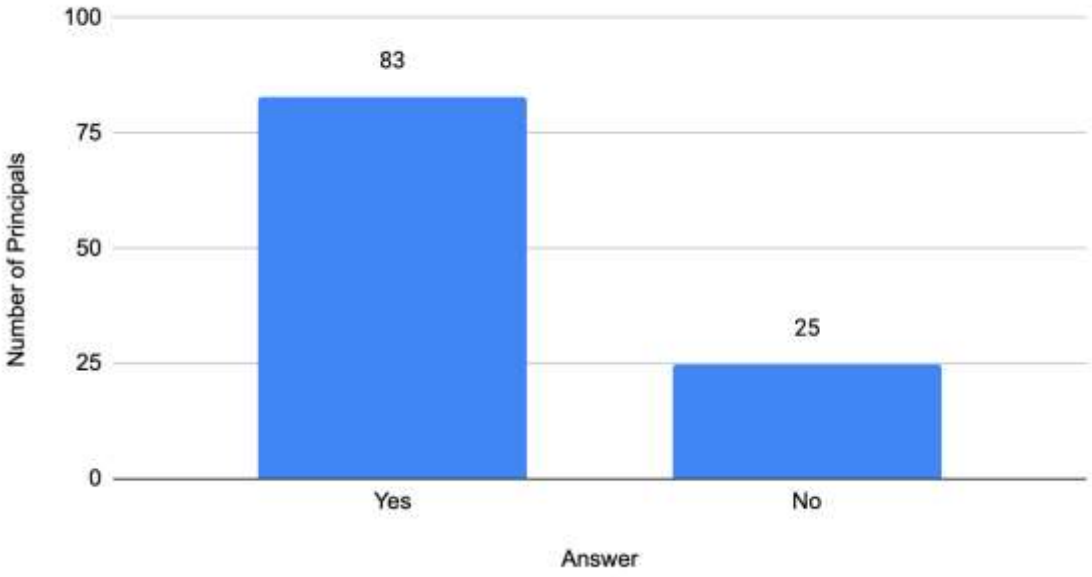


Do principals feel that they can transition their school to being trauma-informed if it is not already?

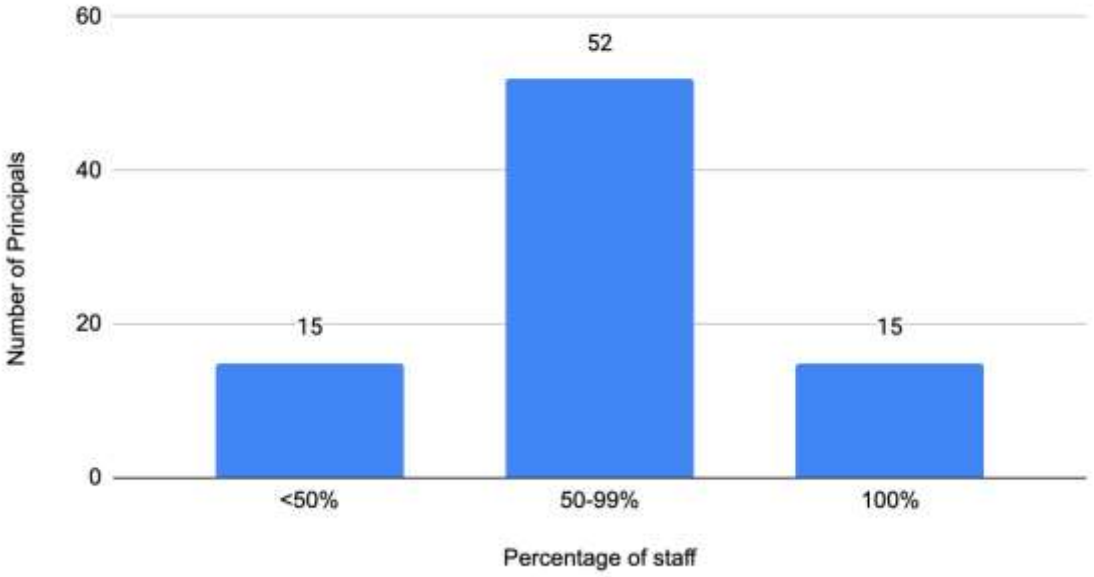
Q9. How prepared do you feel in terms of tools and training to implement trauma- informed practices in your school?



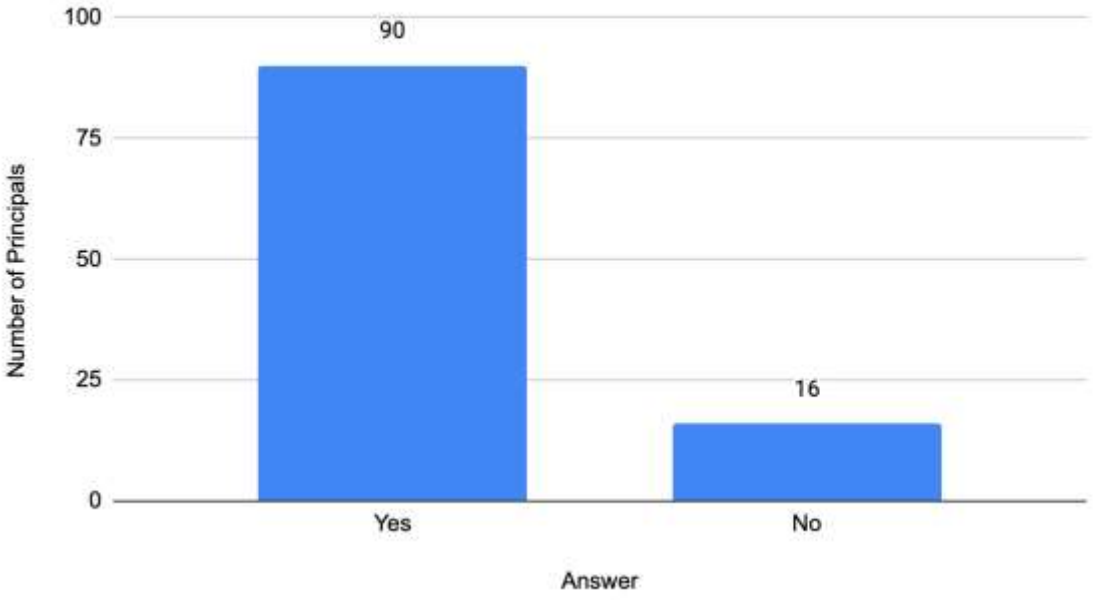
Q10. Have you had the staff at your school attend any trauma-informed training or professional development?



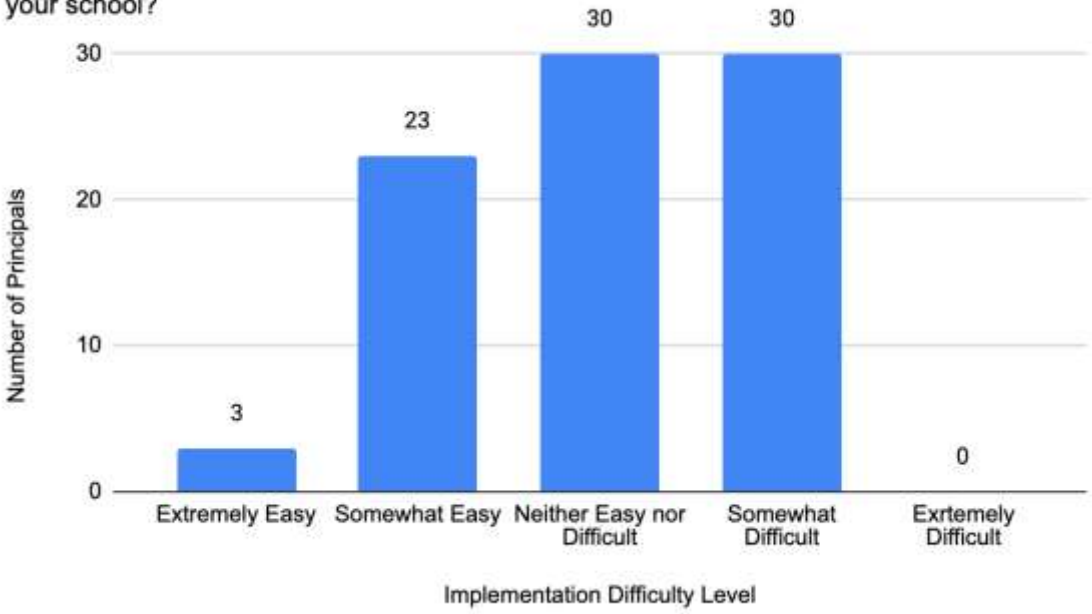
Q11. Estimate what percentage of your staff attended trauma-informed training or professional development.



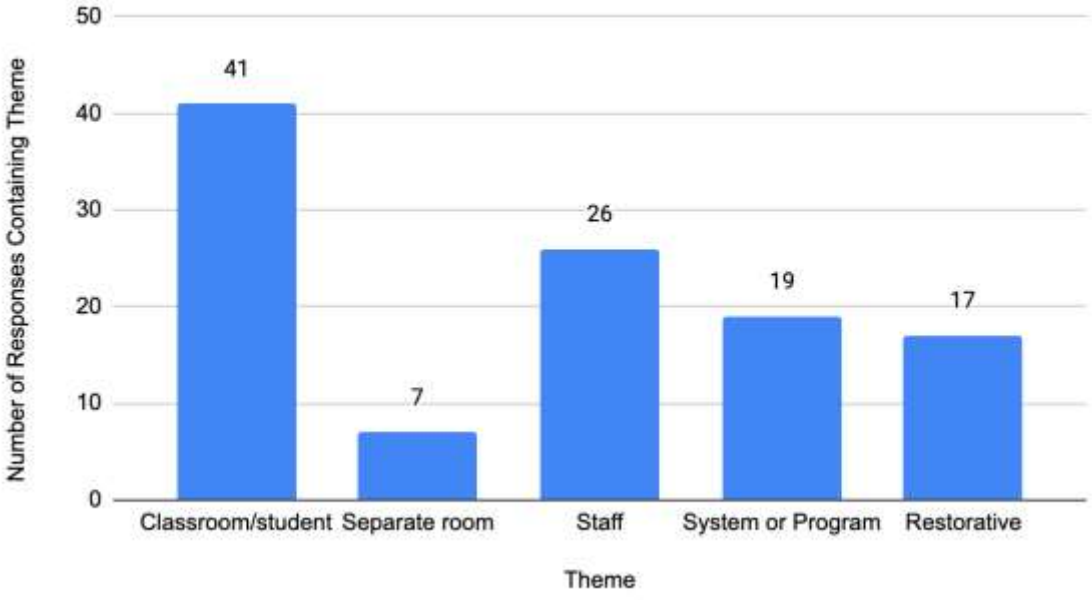
Q12. Have you implemented any trauma informed practices in your school?

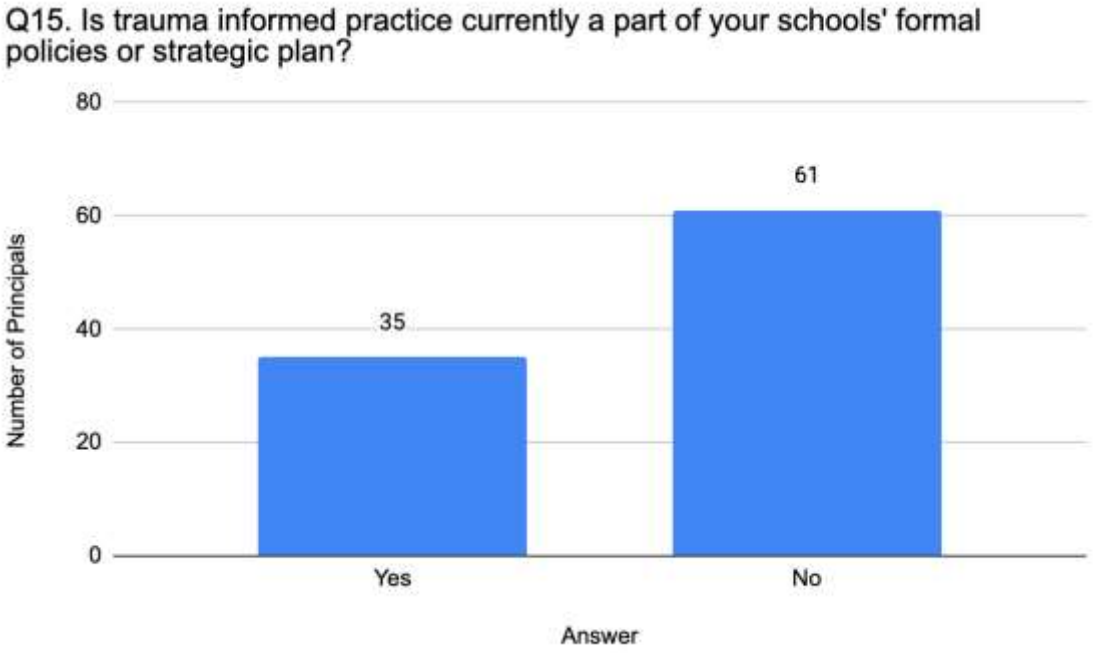


Q13. How easy or difficult have you found it to implement trauma-informed practices in your school?

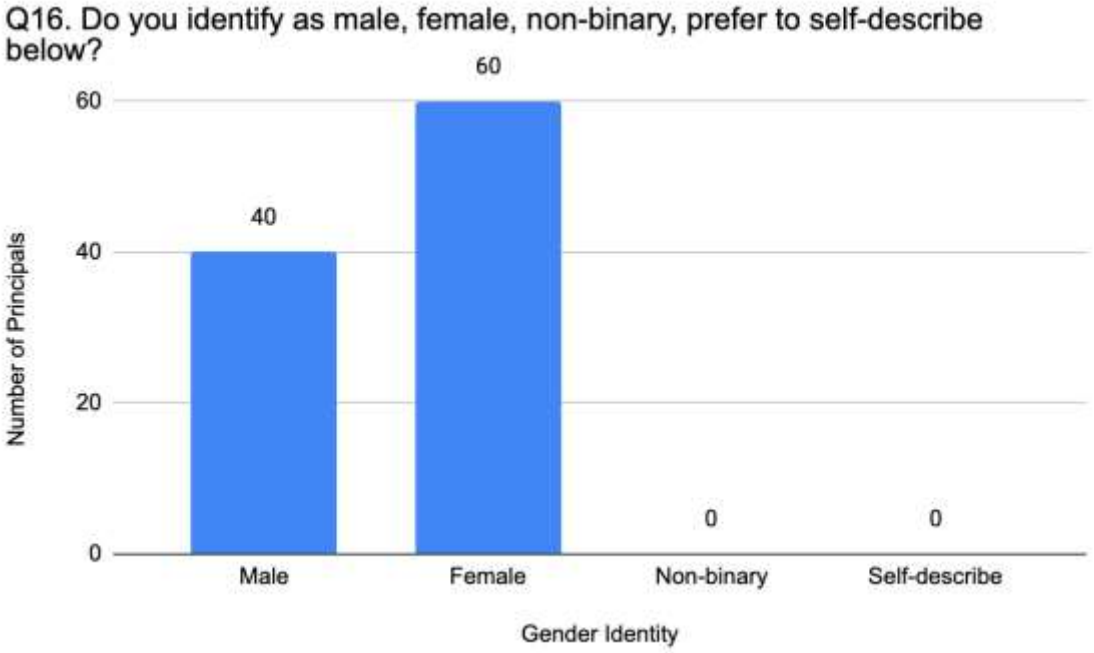


Q14. What trauma informed practices have you implemented in your schools?

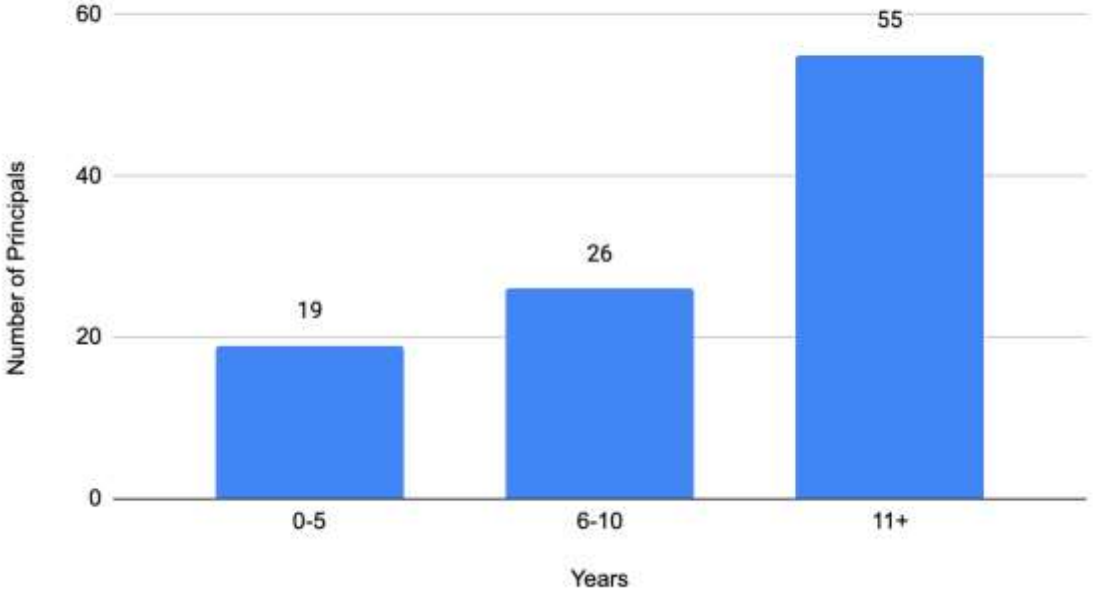




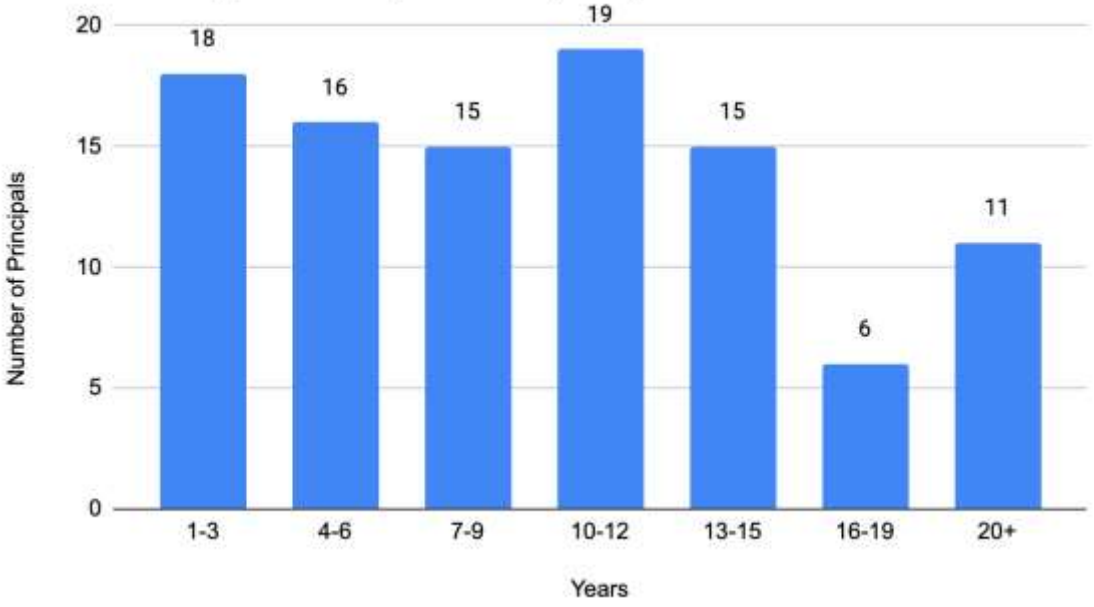
Other Information/Participant Section



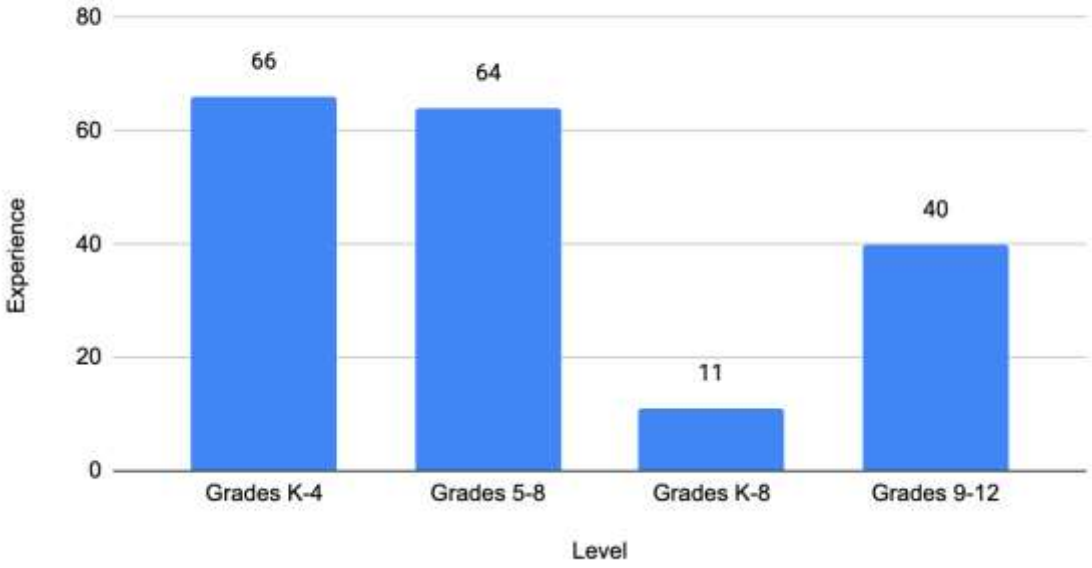
Q17. How long has it been since completing your principalship program?



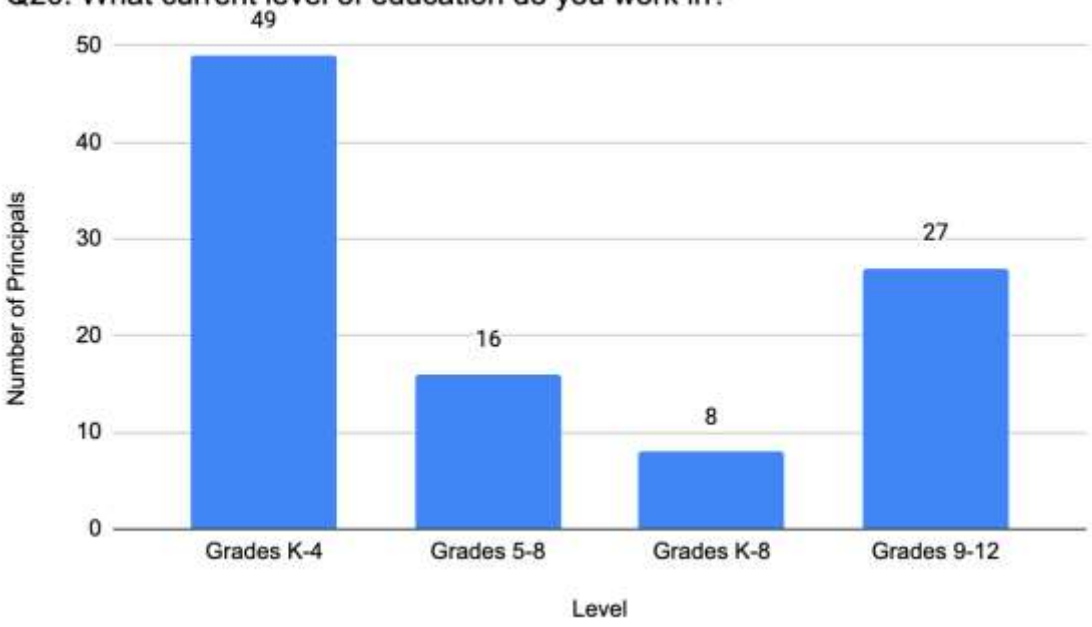
Q18. How many years have you been a principal?

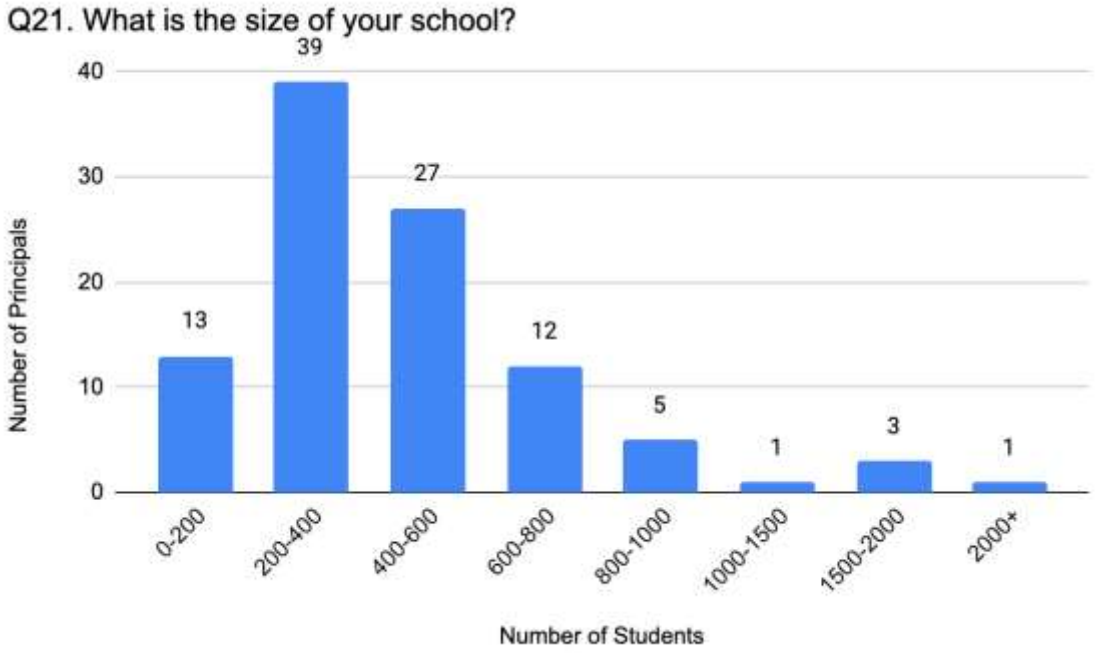


Q19. What levels of education have you worked in as a principal? Check all that apply.



Q20. What current level of education do you work in?




Q21. What is the size of your school?
Number of Principals
40
30
20
10
0
39
27
13
12
5
1
3
1
0-200
200-400
400-600
600-800
800-1000
1000-1500
1500-2000
2000+
Number of Students