Fostering Resilience in the School-Aged Child

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Fostering Resilience in School Aged Children

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Abstract

*Background:* The world is a challenging and sometimes difficult place to navigate. People are faced with tragedies and adversity. Without supportive people and environments, this can lead to poor outcomes such as physically, socially, and emotionally. Children rely on adults to provide safety, love, and security yet many children do not receive the care they need and deserve. Adversity in children affects their development and reduces their capabilities to deal with stress. For a society to prosper and grow, reducing child adversity is essential. Resilience is a powerful tool that can be fostered and developed in children, so they are able to succeed even with adversity. Resilience is key to helping children thrive in a world where they may be faced with adverse childhood experiences at home or in their communities. *Purpose:* This quality improvement project will provide education to promote and foster resilience in the school aged child. *Methods:* A systematic investigation which will include data collection and analysis will be conducted to determine if participants’ knowledge and confidence in promoting resilience increased after the intervention compared to previous standards.

*Key word:* social/emotional health and children, depression in adolescence, youth at risk, resilience
Fostering Resilience in School Aged Children

**Introduction**

In the United States, mental health conditions affect all people in society yet often, those with mental health conditions are often undertreated, while also leaving some with no treatment at all. Children are no exception; in fact, they face a greater threat to receiving mental health services simply for reasons of few providers who treat children. In addition, children are not universally screened in the school setting or by a pediatrician for emotional well-being or potential risks for problems. Social and emotional problems in children can manifest as hyperactivity, emotional dysregulation, and impulsivity. These behaviors can be a sign of stress. Adverse childhood experiences (ACE’s) are negative events a child may experience or witness. These include being abused, neglected, or having as witnessed domestic violence. These events are linked to poorer health outcomes for years to come (Chang, et al., 2019).

**Background**

According to the American Psychological Association (2020), “resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems or workplace and financial stressors.” Resilience means flourishing in the face of adversity. Children who are resilient are less likely to experience mental health problems (Las Hayas, et al., 2019). Children can and should be taught how to be resilient as these are important life-long skills which will enable them to become resilient adults.
Problem Statement

When children see their pediatrician for a health and wellness checkup, they are not usually asked about any concerns regarding their emotional well-being. When left untreated, mental health problems affect a person’s academic, social, and family life. Children who lack the tools and resources to manage stress and other emotional troubles are at risk to become adults that are involved in the criminal justice system and have increased rates of depression and suicide (Scott et al., 2015). The cycle continues and affects members of the community as well as the person and family (Scott et al., 2015). Of further concern, there is a difference in race and treatment for mental health conditions. African American youths have a greater risk of non-treatment for mental health problems than whites (Husky, Kanter, & McGuire, et al., 2012). This population also has higher rates of anxiety, depression, PTSD, eating disorders, substance abuse, and attention/conduct disorders (Scott et al., 2015). Altogether, it is unfortunate and unethical that mental health is not looked at or treated the same way as physical conditions and illnesses. When children begin school, current practice is to make sure their vaccines are up to date. It is concerning that the same consideration is not given for their emotional health.

The ACE’s study identified a link between childhood trauma and adult illnesses. The problems not only included social and emotional problems, but physical ones such as cardiovascular disease, depression, and suicide to name a few (Felitti et al., 2019). Interestingly, education and socioeconomic status did not factor in the results of the study since nearly all the participants were white and educated. It revealed that nearly 64% of people had at least one ACE. When considering that people in low socio-economic class
usually have less access to resources, finances, and health services, all which lead to
negative health outcomes, having ACE’s increases the burden on health. In fact, the more
ACE’s a person has, the higher risk for negative health outcomes. ACE’s can be
counteracted with resilience. Just like a muscle, the more exercises in resilience children
practice, the stronger resilience grows.

**Organizational “Gap” Analysis of Project Site**

Across the nation, the impacts of the pandemic reach across many aspects of our
lives and families are struggling with hardships. When families are stressed, children are
stressed but children are not targeted for education and information on how to manage
stress. Those topics are usually focused on the adult population. In general, children
and/or adolescents rarely receive emotional health check-ups, despite the high prevalence
estimates of child and adolescent mental illness. The project took place in Maine. This
state has the highest rate in the nation of children diagnosed with anxiety. The national
average is one out of every six children. Maine is also the third highest states of
children who diagnosed with depression (Whitney & Peterson, 2019). Maine youth in
residential treatment has gone up 14 percent, and the number in out-of-state residential
treatment has more than doubled from 22 youth to 54 youth (Maine Kids Count
Databook, 2019). The statistics suggest that children in this state could benefit from
learning about resilience and how to learn to counteract the negative effects that stress is
having on their mental health. Children are not taught skills such as how to manage their
emotions, building their confidence, or building good relationships all of which are
essential in being resilient. The notion had always been that resilience was a trait that
either people either had or had not is untrue. According to Ungar (2019), resilience comes
from the environment. Creating conditions and resources that are accessible is key to a civil society. Resilience is more about the resources being available and the support of a community. Not every environment has available resources, in fact many in low-income and low socioeconomic areas lack resources. One way to create opportunities for people, is at school, early on, learning those skills that are essential in creating your own opportunities.

**Review of the Literature**

Search methods for this DNP project included CINAHL Complete and Cochrane Database of Systematic Reviews for articles published between 2015-2020 using the key words: social/emotional health and children, depression in adolescence, youth at risk, mental health, and resilience. The search yielded 5,828 articles. Articles selected were those in English and peer-reviewed which included both qualitative and quantitative data. Articles were chosen and consisted of topics such as: child emotional problems, risk for mental health issues, adolescent depression, adverse child experiences and resilience. Articles were excluded if they focused on medical conditions, sexuality concerns, homelessness, and substance use. Other articles excluded for review were those that did not include research on children and adolescents. After exclusion, a total of 16 articles were synthesized and reviewed. The quality of the research includes a combination of randomized control trials, systematic reviews, and meta-analysis. The grading of the articles chosen included at least six Level 1: (Read, Kasehagen [2018], Ciocel (2017), Hodder, (n.d.), O’Keefe, (2019), and Las Hayas, (2019). The remaining articles were Levels 3, (Lu, 2019), 5 and 6.
Social and Emotional Health

A review of literature indicates that there are many factors that affect emotional health and well-being. Unattended mental health needs affect quality of life including socially and academically (Connell et al., 2012). Interventions given quickly are necessary for the best health outcomes (Read et al., 2018). In looking at children in kindergarten where social competence is a predominate trait, Jones et al., (2015) were able to see the effect on early social function and non-functioning can have on one’s well-being in the future. Several domains including education, employment, criminal activity, substance use, and mental health were looked at and compared by Jones et al., (2015). There were correlations between early social functioning problems and involvement in the criminal system including the use of substances such as drugs or alcohol. In addition, findings also included early social behavior has an impact on medication use (Jones et al., 2015). Furthermore, research demonstrates that students who receive social/emotional and mental health support increase achievement academically (Walter, et al., 2019). The research indicates that problems in the social and emotional areas of child development can cause problems when they become adults. If students are taught skills such as relationship building, increasing self-esteem, and ways to effectively manage stress, which are all part of building resilience, they will have these useful skills for the rest of their lives and become resilient adults. Children with healthy social and emotional coping skills will be able to thrive in an environment that acknowledges this need.
Disparities

Lo, Hopson, Simpson & Cheng (2017) suggest that discrimination and racial disparities has a negative effect on emotional well-being. Children who have adverse childhood experiences such as poverty, abuse, and lack of access to basic health services are also predisposed to facing challenges in their future. These difficulties are also unproportionally related to ethnic disparity (Kasehagen et al., 2018). Low-income, poor housing and economic hardship are among the things linked to poorer health outcomes and adversity (Chang, et al., 2019). These are all risk factors that many children in the school system face and the more risk factors that a child has, the more vulnerable they become. Kasehagen et al., (2018) noted that adversity does not have to automatically mean negative consequences but that having resilience is important to overcoming obstacles.

Importance of Intervention

American children are under a huge amount of stress, with academic, social and peer pressures that in some may be too overwhelming to manage (American Psychological Association, 2019). Depression is on the rise in adolescents and of even greater concern many times is left undetected (Lu, 2019). Furthermore, as noted by Lu (2019) while the rates of depression rose from 8.3% to 12.9% there was sadly no increase in mental health services. Factors such as being female, part of a one-parent family and having negative school experiences also increased the rates of depression. Those in the racial and ethnic minorities were less likely to receive treatment which makes these problems worse (Lu, 2019). The focus of interventions needs to be to have children learn
social and emotional skills and how to manage stress before stress turns into a chronic problem.

Suicide continues to be a serious problem in the U.S. According to the American Academy of Child and Adolescent Psychiatry (2018), suicide is the second leading cause of death for children, adolescents, and young adults in 15 to 24-year-olds and that the majority of those who die by suicide have depression. Adolescence is a time when teenagers are more likely to experiment in risky behaviors such as substance use and sexual experimentation. If there is an addition of a mental health problem, these behaviors can be even more dangerous such as using drugs and alcohol to deal with depression or being promiscuous because one feels worthless. Not surprising, these additional factors raise concern since these coping behaviors are dangerous and can lead to negative health outcomes. Approximately 70% of youth in the juvenile justice system have at least one mental health diagnosis which increases their risk for suicide (Scott, Underwood, & Lamis, 2015).

Need for Intervention.

A meta-analysis utilizing a randomized controlled design across those aged 10-19 years reveal that the effects of positive interventions promote healthy outcomes and reduces risk behaviors (Ciocanel, et al., 2017). The results indicate that those at low risk derived more benefit from positive youth development interventions than high-risk youth highlighting that positive effects can be achieved without major interventions.

O’Keefe et al., (2019) found that the use of brief interventions in some suicidal adolescents was enough to learn skills and integrate concepts such as resilience to protect
them during future periods of distress. Altogether, the review of literature strongly supports the idea that our youth face many emotional challenges and need adults to be the protective factors and foster resilience. If not addressed, children and adolescents will continue to face consequences of unmet mental health needs.

Strengthening a child’s problem-solving skills and the environmental protective factors such as resilience has been suggested as a good strategy to reduce the risk of adolescents engaging in substance use (Hodder, et al., n.d.). Individual growth and potential have long been thought to come from within a person. A person who is born into poverty is at a disadvantage and no amount of positive attitude or motivation from within is going to change that. The change must come from manipulating the environment and accessing resources that are available. Resilience is more about changing the environment and creating the opportunity for change (Ungar, 2019).

The Universal Preventive Resilience Intervention Globally Implemented in Schools to Improve and Promote Mental Health for Teenagers (UPRIGHT) aims to promote mental well-being at schools. Its conceptual framework was initially based on an extensive literature search regarding the existing resilience-based, mental health promotion interventions in schools. This is a research project funded by the European Union’s Horizon 2020 Research and Innovation program. Adolescents thrive in school environments that foster their need for connectedness, belonging, inclusion and competence (Las, Hayas, et al., 2019).

The results of the review of literature reveal that the nation’s youth are dealing with strong emotional challenges. Challenges that would be difficult for many adults yet are a normal part of life for the most vulnerable. The need for this intervention is great.
The more that children can learn how to be resilient, the more positive health benefits will result.

**Theoretical Framework or Evidence Based Practice Model**

The educational framework used for this project was the Adult Education Theory which is specific to adults and how adults learn. Knowles developed this model of educating adults. He emphasizes that adult learners are self-motivated and take responsibility for decision making. Adult learners are also motivated, self-directed and bring past experiences which deepen the learning experience. Adult learners are motivated to apply what they learn in the real world (Cziesielski, 2020). The DNP student considered the learning needs of the participants such as determining that the adult learner needs to know why they need to learn something, they approach learning as problem-solving, and the topics should be of immediate value. The instruction focused on the process of delivering information and the DNP student’s role was more of a facilitator person. The participants in this intervention had a desire to learn new ways in which they could help and support their students. This method allowed for discussion and sharing of ideas which could then be shared with others who were not able to attend. They were able to learn some of the strategies and immediately practice it in the classroom. Figure 1 illustrates the model in use.

Figure 1

*Knowles’ 4 Principles of Andragogy*
Note. Knowles suggested 4 principles that are applied to adult learning.

Knowles’ Theory Applied

1. The DNP student worked with the 5th grade teacher and collaboratively developed the content of education and desired learning activities. The project site facilitator helped develop the curriculum, “Fostering Resilience in the School-Aged Child.” Teaching materials and activities were created based on the needs and wants of the intended participants with input from the facilitator. The facilitator was an integral part of development, implementation, and evaluation of the intervention.

2. The content of each presentation included relatable concepts and information using examples and scenarios that incorporated real-world examples. Participants shared their experiences about ideas to help children manage stress and ways to help implement resilience-building strategies through discussions and sharing of information. It included an interactive, participant-centered approach in which
discussion and participation helped identify learning goals, strengths, and areas for growth.

3. Key concepts of the application of specific strategies were practiced during and after instruction by the participants following the presentations. They utilized skills each week from the resilience toolbox in their classrooms. Skills such as teaching students how to identify and manage stress, how to engage in active coping strategies, and how to use mindfulness were able to be immediately applied to their work.

4. Participants were able to engage with the information by using one strategy from “Just one Thing” and worksheets from the toolbox to practice and report back on how the strategies worked. Each presentation also included doing a meditation prior to the start of each session. This allowed them the chance to obtain practical knowledge and engaging with the material not just memorizing information.

**Goals, Objectives, and Expected Outcomes**

This project was aimed at providing education and promoting resilience in children and that they would have a “toolbox” of skills in which they could utilize when necessary, to increase their well-being. Resilient children grow to be resilient adults. People are not born with these skills, but they can be taught. Resilience helps achieve positive mental health outcomes which means better academic achievement and an increase in self-esteem. The outcomes of the project were that participants would increase their knowledge and confidence the concepts of learning about and teaching resilience skills.
To provide this intervention, the following objectives were identified: 1. Participants would gain an understanding of what resilience is and why it is important to foster in the classroom. 2. Participants would gain an understanding of how to identify and manage student stress. 3. Participants would gain an understanding of the components of resilience and how to promote resilience.

**Methods**

This QI project focused on working with school personnel to learn about the central concepts of resilience and to build resilience from a strengths-based approach. The pedagogy is based on a strengths-based approach. This method builds on a person’s strengths not their weaknesses or deficits. This type of approach allows individuals to resolve problems and find their own solutions. Instead of trying to fix what is wrong, using this method allows people to be empowered and in control.

The project was conducted virtually with three hours of delivery content. Participation was voluntary and participants were invited via the school email system. The invitation to the presentation was open meaning that people could choose to attend one, two, or all three sessions. Information presented included the topic of resilience, the importance of resilience, and specific resilience building strategies. The model for the resilience project was derived the “Changing Minds, Changing Lives” initiative in which the model for promoting resilience in college athletes was translated for practice in working with children (Chandler, et al., 2015). The model consisted of four central concepts which include: active coping, building strengths, cognitive awareness, and social supports. The model can be applied in children as well as adults who have a desire to learn on how to become more resilient with practice and over time.
Adaptive coping is when the person becomes aware of a stressor and makes attempts to reduce it. The word adaptive generally indicates having flexibility and being able to navigate the world in its always changing state. Usually when a person is using adaptive coping, they are not losing control or their cool when faced with stressors. Instead, they use positive coping mechanisms such as taking a walk or listening to music.

The difference in adaptive coping versus coping in general is that coping can increase stress and cause other problems. If a person’s coping strategies involves drinking alcohol, smoking cigarettes or overeating, health problems may occur. Responding to a stressful situation in a healthy manner is adaptive coping. Application of this concept involved the attendants participating in a meditation and grounding exercise. Discussion followed with the use of alternative strategies to be used in the classroom such as deep breathing and physical coping skills as applicable.

Building strengths is the next concept in which participants were invited to take two strengths identifiers assessments. One is Clifton’s Strength Assessment for Kids which required purchasing and the other option was the VIA Character Strengths Survey which was free. This concept focuses on looking for the strengths that each child possesses and to build upon those strengths to promote resilience. The purposeful recognition of “catching them being good” and “see the good” were discussed as approaches and how using a strengths-based model gives children motivation to continue to use appropriate and socially acceptable skills creating improvements in their well-being and self-esteem. Catching them being good causes children to receive positive reinforcement as opposed to receiving attention for negative behavior. The focus shifts from what are the problems that are apparent and need to be fixed to what are your strong
suits and how can we continue to tap into them? Activities were provided in a toolbox for attendants to use in the classroom such as: self-regulation strategies, having kids make a feelings book; identify intensity of feelings; where do I feel things in my body, levels of stress worksheet and finally journaling as a way of processing feelings. Additional suggestions included having the child share one of their strengths and talk about it with peers. The attendants received a digital copy of Hanson, Stella, & Audio’s book titled, “Just One Thing: Developing a Buddha Brain One Simple Practice at a Time (2012) in which to promote a sense of well-being by using one positive practice a day for reflection and improve outlook. They were able to participate in the discussion of which practice they chose and how this can be used for the students as part of regular practice.

Cognitive awareness is to learn on how to stop automatic self-defeating thoughts. Unhelpful thinking can create bias in thoughts therefore distorting accurate information. Our brains do this automatically and has a big impact on our mood. For example, if your child is not home at their regular time, it is very easy to worry that something terrible has happened and to become stressed and anxious about these unhelpful thoughts without having any information that anything has occurred other than the bus may be just running late. Cognitive distortions were noted by Aaron Beck in his research about depressed patients. He noticed a theme in which his patients experienced automatic negative thoughts. He went on to help patient recognize these automatic thoughts and how to identify and correct automatic negative thinking. Beck’s work is used in many psychiatric disorders today. Cognitive behavioral therapy uses the principles of changing distorted thoughts and helps patients gain insight into their thinking, so they can learn to control
their reactions to stressors. This treatment approach is well established in children and adolescents, especially for those who have anxiety and depression (Kodal, et al., 2018). Interventions for this concept included strategies for children to practice such as: creating a worry box, using one practice from the “Just One Thing” book, and writing in a journal. The goal is to help the child find the good in everyday things to change automatic self-defeating thoughts. The toolbox included the STOPP worksheet which teaches the child to stop, take a breath and to observe the situation and think about what is the mostly likely scenario? It is an exercise in changing distorted thoughts. Over time, just like a muscle that needs training to become stronger and work more efficient so does the brain in changing distorted thinking.

Social Supports is the final concept in building resilience. Positive and supportive relationships provide emotional support during times of stress. It is not surprising that during times of crisis, we look to others to help us through difficult times and to help us process through emotions. In nursing practice, a patient’s social support system is considered a protective factor. It is assessed during the admission process of every patient. The more social supports such as having a loving family, living in a safe community, and access to resources a person has, the higher the likelihood of positive outcomes for that patient. In contrast, patients who are admitted with little positive adult relationships, limited access to resources, and non-supportive families usually require more services and assistance for their disorders or illness. Relationships are essential to building resilience. Social supports create opportunities for children to connect with peers. Social connectedness is a factor in resilient outcomes (Gartland, et al., 2019). Education activities to foster this concept were to have the kids share with each other
examples of how they use their strength, something they are proud of, who is important to them and, who can they count on.

The QI project consisted of an appreciative inquiry (AI) approach in which an interactive and participant centered approach was structured to identify learning goals, strengths, and areas for growth. Open-ended discussions were utilized to explore opportunities for new ideas and suggestions. This approach was originally created by Cooperrider in 1980 but was modified by Dewar in 2014. According to Dewar & MacBride, (2017), AI starts with the positive. Instead of looking at what is going wrong and try to fix it, this method looks at what is working well and try to accentuate or appreciate it. When individuals focus on strengths of an organization, they will be pulled toward the desired direction.

Figure 2

*Dewar’s Appreciative Inquiry Model*

Note. Dewar’s adapted model of appreciative inquiry.
Dewar’s Appreciative Inquiry Model Applied

(a) Phase 1: Discover, “What has been working well at your school to build resilience and why?"

(b) Phase 2: Envision, “One year from now, there is an article about your success in creating a resilient classroom featured in the local newspaper. The headline is your name, “Ms. Smith creates an innovative classroom that promote resilience” so for 5 minutes write about that story.”

(c) Phase 3: Co-create, “How can we make this happen?”

(d) Phase 4: Embed, in this phase the participants implement the strategies and techniques provided from the educational intervention and create a routine for their classrooms using these approaches.

Upon approval of the project, the DNP student worked with members of the school to determine an appropriate date for the intervention. A total of three hours over 3 days were selected for the DNP student to implement the project. Information presented the following: examples of risk and protective factors, how children can identify and manage stress, and specific activities and strategies were given in the form of a toolbox for participants to use with their students in the classroom. All surveys were conducted anonymously, and no identifiers were used using Qualtrics.

Ethical Considerations/Protection of Human Subjects

The educational intervention was a QI project focused on increasing awareness and not research. The University of Massachusetts, Amherst Internal Review Board (IRB) was obtained prior to the initiation of the DNP project. Additionally, the CITI
training “Biomedical Research Investigators and Key Personnel - Basic Course Modules (Group 1) Protecting Human Research Participants” module was completed in 2019 to ensure compliance and awareness of related research protections, policies, and procedures. All necessary ethical considerations in relation to Human Subjects was followed in addition to the Standards of Care. Participants were protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), which protects the privacy of participant’s health information. Surveys provided did not include any participant identifiers. There were no risks identified in this educational intervention. The surveys were anonymous and nameless. The DNP student followed and practiced the standards of maintaining confidentiality.

**Cost-Benefit Analysis/Budget (Appendix A)**

The implementation of this project involved no cost other than the time of the DNP student. The educational sessions were held virtual and during work hours during a time designated for staff meetings. The benefits are intangible in the form of knowledge and confidence acquired to foster resilience in students for improved health outcomes.

**Timeline (Appendix B)**

The implementation phase of the project spanned over a 4-month time frame. After obtaining the UMass Amherst IRB waiver on November 19, 2020, participants were recruited for project implementation. During this time key implementation activities completed included: 1. Completion of pre- and post-intervention knowledge and confidence in resilience building. 2. Educational intervention sessions between March 1st and April 12th. 3. Completion of post-intervention survey data collection at 6-week post intervention. Appendix B shows the specified project timeline.
Data Collection Procedures

Prior to the implementation of this project, the DNP student met with key stakeholders to discuss the purpose of the educational intervention. Upon approval, the DNP worked with the site in the planning stage to determine when and how the intervention would take place. Participants were invited via the school email system to attend if they were interested in the topic of resilience. Participation was voluntary. They did have had the right to refuse participation by declining to complete the surveys. There were no risks of harm by participating or not. No identifiable information was available on the surveys.

Results

This project was implemented virtually at an elementary school in Maine. Project participants included schoolteachers and support staff. There was a total of nine participants who joined the first session, six participants in the second session, and four in the third session. None of the participants attended all three sessions. In all sessions, the participants included a combination of classroom teachers and support personnel. All participants were female, and the project was conducted during a six-week time frame.

Measurement Instruments

In order measure the outcomes of this DNP Project, the Resilience Building Tool was created using a four-point Likert scale. Participants were asked to complete a brief pre-educational survey to determine knowledge and confidence levels of building resilience skills and to take a post-educational survey to determine if confidence and knowledge increased. Likert type surveys are often used to quantify qualitative data in various fields, as the results can be easily tallied and compared (Meng Lin Xu, & Shing...
On Leung, 2018). These surveys have been shown to be both valid and reliable (Meng Lin Xu, & Shing On Leung, 2018). The pre and post surveys are provided in Appendix C and D. Qualtrics is a software program that provides a comprehensive data collection and analysis tool. The program was used to record and analyze the data collected and was chosen by the DNP student because of its ability to ensure privacy and protect the data collected.

Data Analysis

Resilience building scores were formed as the mean of the individual items. One item was reverse coded, because higher agreement would indicate less belief in resilience building (“Resilience is a trait that people either have or don’t have and it can’t be taught”), thus greater mean scores indicate greater resilience building beliefs and activities. Items and thus the scale were rated 1 to 4, thus 2.5 would represent a neutral point and numbers below it would indicate disagreement with or lack of resilience building techniques and above 2.5 would indicate agreement with or implementation of resilience building.

Since there was no identifying information collected about participants when they completed the resilience building scale, the pre and post information was not paired and thus the two time points are treated as independent groups. Given the small sample size, particularly in the pre intervention group, this data does not meet the assumptions of normality required for an independent samples t-tests, and therefore the non-parametric Mann Whitney U was used to compare the ranks of the scores between the two-time groups. The difference in resilience building scores between pre and post was not
significant, but was marginally significant, $U = 3.50, Z = -1.90, p = .057$. The difference was not significant, but the sample size was small, and it is noted that the common language effect size is 0.87 indicating that 87% of the time a randomly selected teacher from post is greater than a randomly selected teacher from pre in terms of their resilience building score. A graphic table of the results are provided in Table 1.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Pre-Resilience Building scores $(n = 4)$</th>
<th>Post Resilience Building Scores $(n = 7)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.83</td>
<td>3.21</td>
</tr>
<tr>
<td>Median</td>
<td>2.85</td>
<td>3.20</td>
</tr>
<tr>
<td>SD</td>
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<td>0.32</td>
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<td>Skewness</td>
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<td>-0.22</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Maximum</td>
<td>2.9</td>
<td>3.6</td>
</tr>
</tbody>
</table>

*Note:* Resilience building scores were formed as the mean of the individual items.

As seen in Table 1, resilience building scores for the 4 people pre intervention were a bit above a neutral point ($M = 2.83$ compared to neutral midpoint of 2.5), and even the minimum value (2.7) was above a neutral midpoint. Post intervention, although the minimum score was still a 2.7, on average scores were higher ($M = 3.21$) and the highest score $(\text{max} = 3.6)$ indicated very high agreement.
Discussion

Implications

The findings from this DNP project support the initiative of fostering and teaching resilience building skills and strategies to children in the school setting. Resilience concepts such as mindfulness, meditation, and grounding practices are an evolving area of focus within academic settings. Creating resilient schools and classrooms in which staff feel confident in implementing resilience building practices can have a widespread impact for children and adolescents.

There were three main themes uncovered in the literature review. These were that our nation’s youth are stressed and have increasing rates of anxiety, depression, and suicidal ideation, untreated adverse childhood experiences (ACE’s) that have life lasting negative impacts, and that early intervention is important in preventing mental health problems. The mental health problems of children are not being addressed and the reason is that access to treatment is poor. Findings from Lu (2019), highlight the link of increase rates of depression in adolescents and underutilization of mental health services. To reverse this trend, a strong social network support is necessary. One of the concepts of building resilience is to have social supports available.

The second theme that was apparent in the literature was that children have their own traits that protect them and build resilience despite having ACE’s. Resilience is being able to adapt positively to conflicts and is an interaction between the person’s stressors and their protective factors. ACE’s does not predetermine that someone is doomed and having resilience does not also promise a positive outcome. The interaction
between the person and their environment determines whether someone’s path will be
towards well-being or dysfunction. Such factors are one’s protective factors. They can be
a person’s own biological characteristics but more importantly includes family,
community, and access to resources that minimize the negative impacts of ACE’s.
Protective factors explain how someone may have had great adversity in childhood but
was able to succeed as an adult. Resilience building concepts such as having safe and
stable nurturing environments are protective in nature. The more protective factors that
exist, the less negative consequences of ACE’s a person is likely to experience. Holtge et
al., (2021) emphasizes that resilience is more of an interactive process between person
and environment in which the individual negotiates the necessary resources to help
maintain serviceability during times of stress. It appears that being able to navigate one’s
environment and access available resources is more important than having internal
resilience factors. This finding is significant in that a person’s background and
upbringing, although influential is not pre-determined for life.

The third theme revealed that early intervention is important. There are challenges
and barriers to accessing mental health services for children, especially if they are from
socioeconomic disadvantaged backgrounds. Walter, et al., (2019) demonstrated a multi-
level approach to delivering mental health services to six different schools and found that
high-risk participants who had early intervention services at their school indicating that
appropriate interventions in the school setting can be successful for positive health
outcomes particularly if access to services is a deterring factor for some. Schools also
allow for early detection and prevention should a student need extra support. Simple
strategies that can teach a child how to ask for help and seek appropriate resources can change a child’s development, long term, even if they have a higher number of ACE’s. Interventions that engage youth in constructive ways while enhancing their strengths promote positive outcomes (Ciocanel, et al., 2017). Additionally, providing opportunities, promoting positive relationships, and providing social support is necessary to develop protective factors while preventing risky behaviors. All fundamental to building resilience.

Table 2

<table>
<thead>
<tr>
<th>Resilience Subscales</th>
<th>Resilience Understanding</th>
<th>Resilience Identification</th>
<th>Resilience Promotion</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>2.25</td>
<td>3.86</td>
<td></td>
<td>2.38</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td></td>
<td>2.25</td>
</tr>
<tr>
<td>0.5</td>
<td>0.38</td>
<td></td>
<td>0.48</td>
</tr>
<tr>
<td>2</td>
<td>-2.65</td>
<td></td>
<td>0.85</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Resilience Subscales comparison pre and post intervention.

Goal 1. Participants would gain an understanding of what resilience is and why it is important to foster in the classroom.

As seen in Table 2, the scores were higher on average after the intervention compared to before. Using a Mann Whitney U test, scores on resilience understanding were significantly higher after the intervention compared to before, U= 0.50, Z= -2.72, p=0.007, with a large effect size, common language effect size is 0.018.
Goal 2. Participants would gain an understanding of how to identify and manage student stress.

As seen in Table 2, participants did report higher mean and median scores of identifying helping students to manage stress after the intervention. However, using a Mann Whitney U test, scores on resilience identification were not significantly higher after the intervention compared to before, $U= 6.50$, $Z= -1.41$, $p=.160$, with a medium effect size, common language effect size is 0.23.

Goal 3. Participants would gain an understanding of the components of resilience and how to promote resilience.

As seen in Table 2, the scores were slightly higher on average after the intervention compared to before. Using a Mann Whitney U test, scores on resilience promoting were not significantly higher after the intervention compared to before, $U= 9.50$, $Z= -0.80$, $p=.007$, with a small effect size, common language effect size is 0.34.

Framework

The theoretical framework was to use a strengths-based approach which allows more of a holistic focus which includes a person’s strengths and resources that are available in the process of change. This paradigm shift empowers people to oversee and control their own destiny. It also recognizes the role of facilitator and helping to find solutions together with others and not become the problem solver. This method encourages opportunity for exploring, participating, and envisioning what may be by taking control of learning. Resilience building activities should include both behavioral and cognitive strategies that change the brain such as: regulating stress, exercising, sleeping, and eating a healthy diet (Tabibnia, & Radecki, 2018) all of which causes
neuroplasticity and therefore changes in the brain. In addition, social connections mindfulness techniques, and cognitive training approaches are all factors important in boosting brain pathways to resilience. The implication for this research indicates strong evidence that the brain can learn to be resilient and by using a practicing a wide variety of coping skills the likelihood of resilience is likely to increase. Table 2 represents the resilience building framework which was modified from the “Changing Minds, Changing Lives” model and applied to children.

Table 2

Resilience Building Framework

<table>
<thead>
<tr>
<th>Framework</th>
<th>Content</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Coping</td>
<td>Deep Breathing, Meditation, Grounding, Using physical coping skills</td>
<td>Choose one positive practice from “Just One Thing” and share with participants.</td>
</tr>
<tr>
<td>Building Strengths</td>
<td>Strength Assessment for Kids-Clifton or VIA Character Strengths Survey</td>
<td>Pick one of your strengths and provide an example. Practice self-regulation by doing mindfulness.</td>
</tr>
<tr>
<td>Cognitive Awareness</td>
<td>Challenge automatic self-defeating thoughts.</td>
<td>Find one positive observation write it down in a journal, make a list, or write it in a notebook.</td>
</tr>
<tr>
<td>Social Supports</td>
<td>Affirmations, appreciations</td>
<td>Share with each other.</td>
</tr>
</tbody>
</table>

Note. Resilience Building Framework and Examples of Strategies for each.

Limitations

This DNP project has evolved since its inception. Several changes occurred during the planning and implementation phases which took place during the Covid 19 pandemic which caused many schools to shift to a virtual teaching format. Teachers were dealing with a very different format and felt very overwhelmed which caused a significant delay in student participant recruitment and thus parental consent. Initially,
the participants of the resilience building education program were to be the students of a 5th grade class at the project site which would receive the educational intervention. Given the time constraints and the project’s site willingness to move the project forward, the project shifted to providing the intervention to teachers and school support staff instead.

Another limitation was the small sample size which limited generalizability. The participants were recruited via the school email system and sent by one teacher whom the DNP student had been working with. This type of communication may not have been the preferred choice and may have limited the size of participants.

The participants spent a brief amount of time completing the surveys and may not have had the time to pause and reflect on the free-write question “One year from now, there is an article about your success in creating a resilient classroom featured in the local newspaper. The headline is your name, “Ms. Smith creates an innovative classroom that promote resilience” so for 5 minutes write me that story. Data collection took place during parent-teacher conference week and it is possible that resilience strategies may differ during particularly stressful times for teachers.

Finally, the number of participants varied in the sessions in that most only attended one session out of three so feedback from strategies and interventions learned and applied in the classroom were not provided. The responses to the surveys were also challenging in that all participants did not complete the survey immediately but later in time which could have also influenced their reflection and response.

Suggestions

This project would benefit from having children and adolescents participate in this research as they are the key stakeholders. The time constraints during the
implementation process only allowed for an adult focus of understanding resilience building skills and strategies. It would be useful to have first-hand accounts of what is meaningful and important to children for creating positive change. Information regarding future practice and research implications cannot be provided by adults only, especially since there are many ways of developing resilience and children and adolescents need to be active participants in the process.

**Conclusion**

This study provides insight in understanding the relationship between resilience building and student success. Teachers and school personnel have the potential to impact positive social change, but their role can be isolating within the confinement of delivering academic curriculum and fostering student resilience. Effective interventions to support teachers building resilience in their classrooms requires support networks. The tools used in this educational intervention provide guidance for the development of resilience building school curriculums. These concepts would need to be adopted in schools to create a culture of change. One of which takes a proactive role in primary prevention strategies to reduce the toll of emotional distress. If, because of this project, students can learn how to be resilient and resourceful, together these tools can remove some of the barriers to mental health care. Healthy People 2020 identifies the burden of mental health as being a common cause of disability yet, there is lack of interventions to identify the disparities in mental health. One in five children in the United States (U.S.) suffers from a mental health condition and at least 85 percent are not receiving treatment although warranted (Brenner, 2019). These statistics are concerning especially since interventions for a mental illness are treated on a tertiary level of prevention. The focus of
interventions for health should be at a primary level of prevention and that is not occurring in practice. The need exists that projects such as this one is required to raise awareness that there are strategies available for those who care for our most vulnerable and impressionable population, our children and youth.
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### Appendix A

**Project Budget**

<table>
<thead>
<tr>
<th>Project Expense</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Training of Staff</td>
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<tr>
<td>Preparation time for DNP student</td>
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</tr>
<tr>
<td><strong>Benefit Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>Improved knowledge and confidence in</td>
<td></td>
</tr>
<tr>
<td>fostering and building resilience in</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix B

### Timeline

**Table 1**

<table>
<thead>
<tr>
<th>Task</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact school administration for proposed intervention</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Confirm date and time for intervention</td>
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<td>X</td>
<td>X</td>
<td></td>
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<td></td>
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<tr>
<td>Create presentation materials</td>
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<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Present educational intervention</td>
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<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gather post-intervention utilization data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<td></td>
</tr>
<tr>
<td>Analyze data</td>
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<tr>
<td>Project approved by committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Present findings to committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
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</table>
Appendix C

Resilience Building Tool

Pre-Survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  I would be able to identify a student's behavior is a result of emotional distress.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  I would be able to recognize when a student’s stress level is increased.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  My classroom cultivates resilience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4  I build supportive relationships with students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5  I create a culture of mindfulness in the class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6  I am able to teach students how to regulate their emotions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7  Resilience is a trait that people either have or don’t have and it can’t be taught.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8  I nurture a positive self-view.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9  I feel confident in my ability to promote resilience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 I promote positive peer relationships with my students.</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Resilience Building Tool

Post Survey

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I would be able to identify a student’s behavior is a result of emotional distress.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I would be able to recognize when a student’s stress level is increased.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My classroom cultivates resilience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I build supportive relationships with students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I create a culture of mindfulness in the class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I am able to teach students how to regulate their emotions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Resilience is a trait that people either have or don’t have and it can’t be taught.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I nurture a positive self-view.</td>
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<td></td>
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</tr>
<tr>
<td>9</td>
<td>I feel confident in my ability to promote resilience.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I promote positive peer relationships with my students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question 11

“One year from now, there is an article about your success in creating a resilient classroom featured in the local newspaper. The headline is your name, “Ms. Smith creates and innovative classroom that promote resilience” so for 5 minutes write me that story.