
Use of a Donabedian Quality Model and Licensed Resiliency Survey to Design a Mindfulness Practices Study to Enhance Resiliency for Grade-school Children Impacted by Adverse Childhood Events

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BACKGROUND: *By providing coping skills to improve resiliency early in their education, support can be provided to children affected by adverse childhood events as they transition into society. Specifically, the goal was to design a study using the Donabedian Quality Model and Licensed Resilience Survey (RS10) for a post pandemic study of how mindfulness educational interventions as coping skills improve resiliency in the target population in a face-to-face school setting. DESIGN: Provide school- age children impacted by an adverse childhood event with nine weeks of mindfulness intervention activities supported by Watson’s Human Caring Theory, Donabedian’s Quality Model and pre/post interventions resiliency scale measurements obtained using the RS10 Resiliency Survey. DISUSSION: This design was consistent with previous literature indicating mindfulness activities are appropriate for developing resiliency. In addition, Watson’s Human Caring Theory proves to be an appropriate theoretical model and the RS10 and Donabedian Quality Model are an appropriate instrument and quality model.*

The U.S. Department of Health and Human Services¹ reports that close to 120 million dollars was budgeted to the Children’s Health Mental Health Services in 2018 to provide services to children at risk for developing serious mental health issues related to adverse childhood experiences.¹ Ten percent of that budget was designated to translate evidence-based research finding that early screening and recognition of a child’s emotional distress contributed to prevention of long term more serious mental illness.¹ By providing coping skills to improve resiliency early in their education we can support children affected by adverse childhood events as they transition into society. The goal of this design was to identify an appropriate

theoretical framework, quality mode, and instrument to effectively report resiliency coping factors in school age children.

Several common themes emerge in the literature pertaining to use of mindfulness behaviors in the youth. First, mindfulness activities reflected feelings of relaxation, calmness, and a decrease in worry.²⁻⁷ Social relationships were explored in several studies and revealed decreased social anxiety and enhanced social development in children using mindfulness behaviors.⁸⁻¹⁰ A decreased general anxiety and feelings of distress or sadness was also reported.¹¹⁻¹⁴ The authors were specifically interested in the evidence supporting the use of five to eight mindfulness activities in developing coping skills, emotional regulation, compassion and resilient behaviors.¹⁵⁻²⁶ Lastly, literature supported increases in self-esteem and confidence which correlates with protective behaviors that support a child's mental health growth.²⁷⁻³⁰

Gaps in the research existed. First, evidence was limited using the specific focus and grade school setting. Research found included mostly culturally specific studies which limited generalization to a population at large. Third, most of the research in children concentrated on those with known diagnosed anxiety disorders, and children with needs such as ADHD and Autism rather than core populations of children impacted by adverse childhood events. Fourth, limited research was available using large sample sizes and consistent frameworks, quality models, and instruments. Therefore, the authors' interest was designing a quality improvement initiative to add mindfulness activities to support school age children impacted by adverse family events using a framework supporting mindfulness, and quality model and instrument which could be consistently used for generalization purposes.

Theoretical Framework for Design

The theoretical framework guiding the design is Watson's Human Caring Theory.³¹ In recent years, Dr. Watson has adopted mindfulness behaviors in alliance with ten caring processes guided by Zen master, Thich Nhat Hanh.³¹ Dr. Watson has incorporated five well known mindfulness trainings originated by Thich Nhat Hanh when teaching her Human Caring Theory. The trainings include reverence for life, true happiness, true love, loving speech and deep listening, and nourishment and healing.³¹ Dr. Watson's theory, coupled with Thich Nhat Hanh's mindfulness practices,

were a good fit for a theoretical framework to support the design of the study.

Instrumentation for Design

The licensed Resiliency Survey (RS10) tool for interpretation of psychometric testing was chosen as the tool for data collection. This tool designed for seven-twelve years old students, is self-completed in four-five minutes, includes an interviewer guide to assist with any questions, and has a reported Cronbach's alpha of 0.82.³² A Flesch Reading Ease text score determined that the reading level of the survey was valid. The closer to 100 the better, and the RS10 survey reflects a Flesch Reading Ease test score of 94.8.³² A Flesch-Kincaid Grade Level report suggests the minimum grade level for which a survey is valid and the RS10 Flesch-Kincaid Grade level was 2.4. This means the survey should be utilized in children who are at minimum almost half-way through the second grade.³² Previous research using the RS10 survey contributed to the researcher's acceptance of the reliability of the instrument. The use of the RS10 survey in similar age groups of children impacted by adverse childhood events supported the survey's reliability for the intended design.³³⁻³⁶

Benchmarks for the Design

The Resiliency Survey (RS10) licensed instrument includes benchmark expectations and an interpretation guide for the researcher. The benchmarks for the RS10 include five core characteristics: (1) purpose, (2) authenticity, (3) equanimity, (4) self-reliance, and (5) perseverance.³² Each of the characteristics have definitions which translate the concepts into aspects of growth and development of emotional resiliency in children and is provided in Table 1.

Table 1. Definition of the RS10 Core Characteristics

Core Characteristic	Description
Purpose	Knowing one's personality, talents, abilities, and recognizing opportunities for yourself
Authenticity	Guided by one's values and beliefs and self-acceptance
Equanimity	Finding one's perspective, championing flexibility and optimism, use of a senser of humor to find balance

Self-Reliance	Developing one’s problem-solving skills, capabilities, confidence, and inviting challenges
Perseverance	Practicing determination, self -discipline, and steadfast abilities

Note: Adapted from (The Resilience Center, www.resiliencescale.com, n.d.)

Established benchmarks for the tool are described using comparison levels of resiliency to the growth and development of a tree. Scores range from 10-40 and score ranges are interpreted as four stages of resiliency. The first stage is emerging resiliency, followed by developing and growing resiliencies, and ending with thriving resiliency.³² How the characteristics are measured using the survey and correlated benchmarks is provided in Table 2.

Table 2. RS10 Score Benchmarks

RS10 Benchmarks	Scores correlation with stage	Stage’s description
10-30	Emerging	Taking root and building strength with the ability to be seen
31-34	Developing	Noticed advancement and growth
35-37	Growing	Increasing in mature strength
38-40	Thriving	Strong, flourishing, succeeding

Note: Adapted from (The Resilience Center, www.resiliencescale.com, n.d.)

Implementation for the Design

Introduce grade-school students to mindfulness behavior activities in weekly sessions as an educational intervention for nine weeks of the semester. The weekly mindfulness interventions are adapted from a published coping skills resource.³⁷ The resource activities are evaluated as appropriate based on their development by a licensed clinical social worker/family counselor, their age-appropriate growth and development stage, and their relationship to the goals of the design. The activities prepared as a toolkit, include detailed instructions, and implementation guidelines. The RS10 survey tool is designed to be administered the week prior to the introduction of the interventions as a baseline and during the 10th week of quarter; one week post interventions.

Data Analysis for the Design

Data analysis utilizes a comparison of measures of central tendency including the mean, mode, and median as descriptive statistics using participant results. The RS10 survey tool should be conducted by a consistent researcher in weekly program session on paper with random number assignments to the participants. Upon collection, the researcher submits the surveys to the investigator who could only identify the survey by number, not by student. The Resiliency Survey RS10 is repeated in the same manner post interventions. The Resiliency Survey RS10 tool provides benchmarks. The possible range of total scores is 10-40. Higher resilience is scored at > 35, while lower resilience is considered scores < 35. In addition, description of a subset of ranged scores places the responder in one of four categories of resilience beginning with emerging, followed by developing, then growing, and finally, thriving.

Discussion

One strength of the design is that it met with the author's intention. Second, research reported validity and reliability of the RS10 as the instrument for data collection.^{34,38} Third, the mindfulness educational interventions were appropriate for the growth and development stage of the target population.³⁷ However, other demographic variables in the participants are not assessed as reasons for demonstrating either low or high resiliency.

A main goal of the design is to select an appropriate quality model. Table 5 represents a Donabedian's quality model demonstration for the project defining structure, process, and outcomes. Structure assesses the foundational resources while process includes the movement forward, and outcomes reflects the goals. Donabedian believed that all system approaches to improving quality of care needed to include a love for the individual impacted and a model that could be flexible depending on the setting.³⁹ In addition, he believed that the attributes of the provider contributed to the success of the project.³⁹ These concepts were considered when choosing the Donabedian model for the project in a school setting whose participants were a vulnerable population of children, and whose stakeholders were invested passionate care providers.

Table 5. Donabedian Quality Logic Model

STRUCTURE	PROCESS	OUTCOMES
<u>Purpose</u> - support the emotional well-being of school children with primary care givers/family members who are or have been impacted by adverse childhood events	<u>Develop</u> nine 5-8-minute mindful sessions	RS10 post intervention results indicated
<u>Theoretical Framework</u> - Watson's Human Caring Theory	<u>Data Collection</u> Completion of RS10 pre-survey by participants	Establishment of baseline data of population's resiliency scores
<u>Stakeholders</u> - children, caregivers, community <u>Participants</u> - elementary school children	<u>Implementation and Data Collection</u> Participation for nine weeks Completion of RS10 post survey	Completion of ideally 100% of participants included in target population in weekly mindfulness activities
<u>Setting</u> - school setting	<u>Data analysis</u> completed	Goal = improved resiliency scores

Future Studies

A first recommendation would be to design a study which could include a large sample size. The second recommendation would be to consider a project which has a longer implementation time frame as changes in resiliency are often found to take longer time frames.^{23,29} Future inquires may include opportunities for grant funding and partnering with similar programs dedicated to children's mental health among school districts. Repeat studies across the grade levels of children could be designed to assess mindfulness activity contribution to improved attendance, decreased acting out behaviors, and improved proficiency testing over time.

Integration of mindfulness activities when accepted by the stakeholders can provide an added benefit to the existing school programs supporting children's mental health: in particular those children impacted

by adverse childhood events. Continuous mindfulness activities designated for the target population are attainable from numerous free sources.

Conclusion

Developing resiliency and self-protective behaviors in children through mindfulness behaviors can foster the emotional health needed to transition into adolescence and adulthood. Mindfulness exercises can support the family as stakeholders when an adverse childhood event impacts a child. Surrounding school districts and community are also stakeholders who can be positively influenced by shared benefits of mindfulness activities for school age children. Consistent use of a theoretical framework, quality model, and instrument tool provides increased opportunity for generalizability.

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